Deliverable 2.6 – UX, Real User Tests, and User Guidelines Specification Report

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Short Description	This report provides detailed instructions and best practices for users interacting with our system. It outlines essential procedures, step-by-step guidelines, and recommendations to ensure efficient and effective use of the platform. Additionally, the document includes information about user tests and validation to further support and enhance user experience and system reliability.

History of Changes			
Date	Version	Author	Remarks
07/05/2024	0.1	Santiago Rondón G	First version
15/05/2024	0.2	Santiago Rondón G	Revised after review
13/06/2024	1.0	Santiago Rondón G	Revised after review

Executive Summary

This report provides comprehensive instructions and best practices for users interacting with the CULTURATI system, covering all essential components and functionalities to ensure effective and efficient navigation.

The report begins with an introduction that sets the context and purpose of the guidelines. It then explores the UX Design Overview, emphasizing the enhancement of user interaction through a clear and intuitive interface, aiming to minimize the learning curve for new users while ensuring flexibility for future enhancements.

The **Content Management System (CMS)** section is divided into role-specific subsections, providing tailored guidance for Administrators, Data Entry Operators, Content Creators, and Editors, with each role's unique responsibilities and tasks clearly outlined. Detailed UI overviews help users understand their specific interfaces and functionalities. The **Core Main Application** section includes an in-depth look at the CULTURATI Admin and the CULTURATI Visitor applications. The Admin Application covers functionalities such as exploring the map, creating navigation and exhibition points, managing facilities and sensors, and handling geospatial data. For the **Visitor Application** it guides users through the interface, including logging in, starting a game or route, and utilizing the side menu and map features.

Table of Contents

1. Introduction

The CULTURATI User Guide equips all users with best practices and detailed instructions for navigating the system's features. This guide covers every component and functionality, ensuring efficient exploration. Focusing on user experience, a clear and intuitive interface minimizes the learning curve and allows for future enhancements. The Content Management System (CMS) section provides tailored guidance for **Administrators**, **Data Entry Operators**, **Content Creators**, and **Editors**, with clear explanations of their roles and tasks. Detailed UI overviews further enhance user understanding of their interfaces. The report explains functionalities for Admin (map exploration, point creation, management) and Visitor Applications (login, games, navigation). By following these guidelines, users can expect a productive experience, making this document a vital resource for getting the most out of the CULTURATI platform.

2. UX Design Overview

The primary goal of the UX design for the CULTURATI project is to enhance users' interaction with the system. This is achieved by providing a clear and intuitive interface that allows users to perform their tasks efficiently. The design also aims to minimize the learning curve for new users, making it easier for them to get started with the system. Another objective is to ensure that the design is flexible enough to accommodate the addition of new functionalities in the future, which is crucial for the continued growth and evolution of the CULTURATI project.

2.1 Goals and Objectives

The UX design of the CULTURATI project aims to enhance the user experience by providing a streamlined and intuitive interface for each role within the system. The primary objectives are:

- **Role-Specific Interfaces:** To design and implement customized interfaces tailored to the unique tasks and responsibilities of each role, including Administrator, Data Entry Operator, Content Creator, and Editor, including all the functionalities of the Core Applications: Administrator and Visitor application.
- **Efficiency and Usability:** To increase the efficiency and usability of the system by minimizing the steps required to perform specific tasks and reducing the learning curve for new users.
- **Workflow Integration:** To ensure integration of workflows among different roles, enabling smooth transitions and dependencies between tasks such as category creation, item entry, content creation, and content approval.

- **Accessibility:** To create an accessible environment that caters to users with varying technical expertise, ensuring the system is easy to navigate and use for all roles.
- **Consistency and Clarity:** To maintain a consistent and clear design language across all interfaces, providing a cohesive experience that aligns with the CULTURATI project's overall branding and usability standards.

3. Content Management System - Role-specific sections

The Content Management System roles are defined below:

- **Administrator:** A Content Management System (CMS) Administrator is responsible for the following to ensure the system's functionality. The system will work on personalized questions and answers according to the predefined and carefully decided categories and levels to provide functional games and dynamic routes for the visitor's specific interests.
    - Creating and managing categories
    - Setting up levels
    - Adding and organizing prompts

- **Data Entry Operator:** A Data Entry Operator manages and prepares data to be processed to ensure accuracy, consistency, and security. They perform data entry records related to the sites visited in the CULTURATI platform. They also determine the capacities of the locations. The Data Entry Operator handles preliminary data to support data integrity and availability for organizational needs.
    - Creating sensors' locations
    - Determining the Navigation Points' locations
    - Determining location capacities
    - Defining the item's location and the related item's names will be done with the help of the questions.

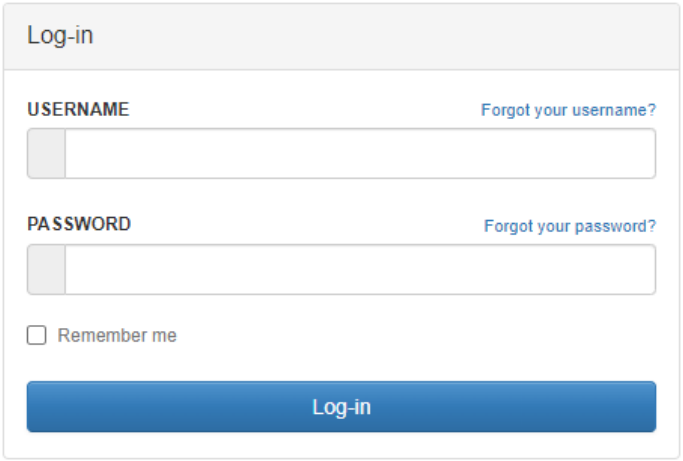
- **Content Creator:** A Content Creator is responsible for producing various forms of Content, primarily consisting of questions and additional information. They generate engaging and informative material, enhancing accuracy and relevance with audio, videos, and photos. The Content Creator collaborates with other team members (Data Entry Operator and Administrators), adheres to content guidelines, and utilizes feedback to improve the quality and impact of the Content.

- Creating questions and information pieces
- Utilizing categories, levels and items created by other roles

- **Editor**: An Editor is responsible for reviewing, refining, and approving Content and item entries to ensure they meet quality standards and guidelines. They check for accuracy, coherence, and relevance, making necessary revisions to enhance clarity and engagement. Additionally, the Editor collaborates with Content Creators, providing feedback and ensuring that all Content is accurate and directed to the audience's needs.
  - Reviewing content / related item created by Content Creators
  - Approving or rejecting content / related item
  - Providing feedback and making necessary revisions

4. Content Management System - UI overview

To access the Wiki, username and password fields will be filled in:



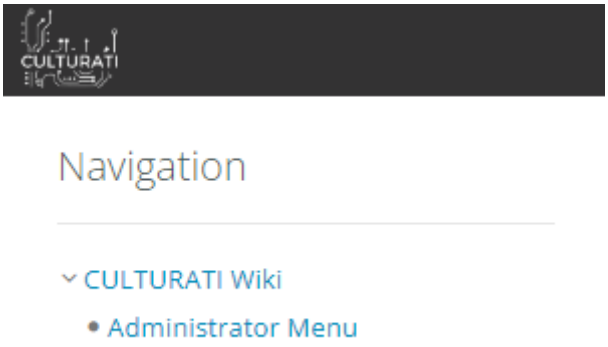
The System Administrator will initially provide the necessary credentials; however, once inside the Wiki, users can update their access password.

Once inside the system, the Wiki will automatically detect the role assigned to the account, and depending on the role, they can view the corresponding menu.

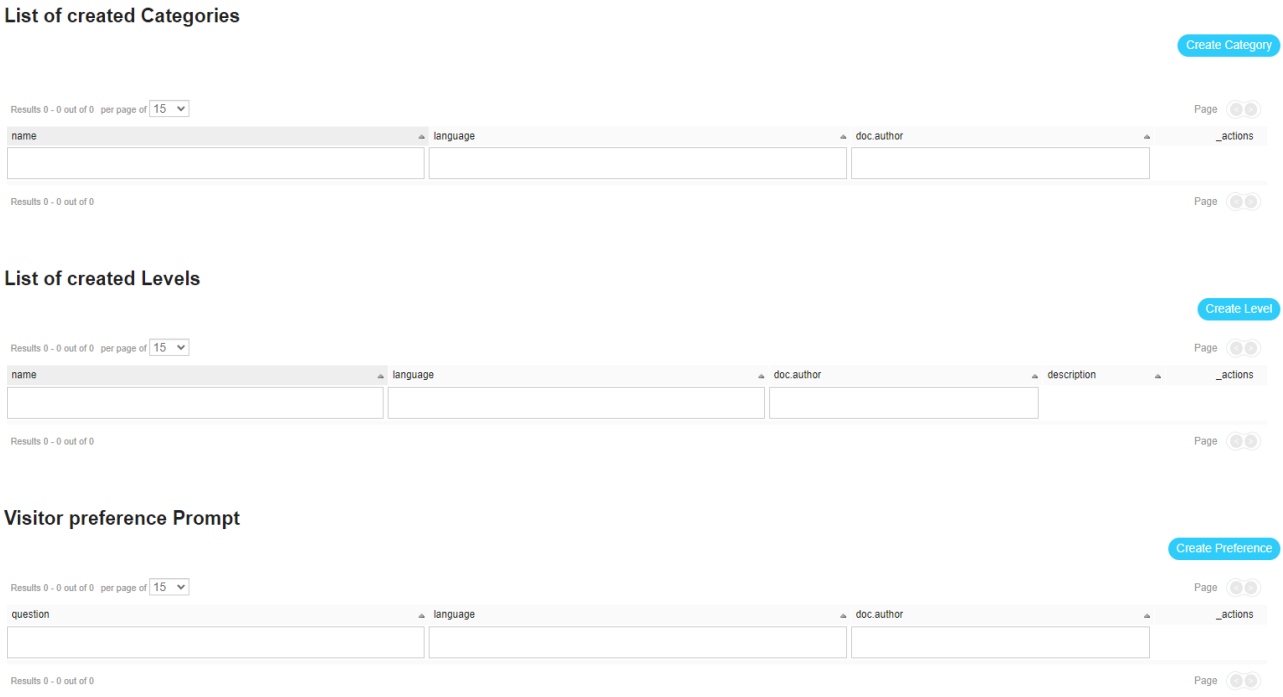
4.1 Administrator Role

The Administrator role in Wiki will be necessary for Wiki to create three types of Content: **Prompts, Categories**, and **Levels.**

The following menu, located in the upper left panel when someone logged-in:

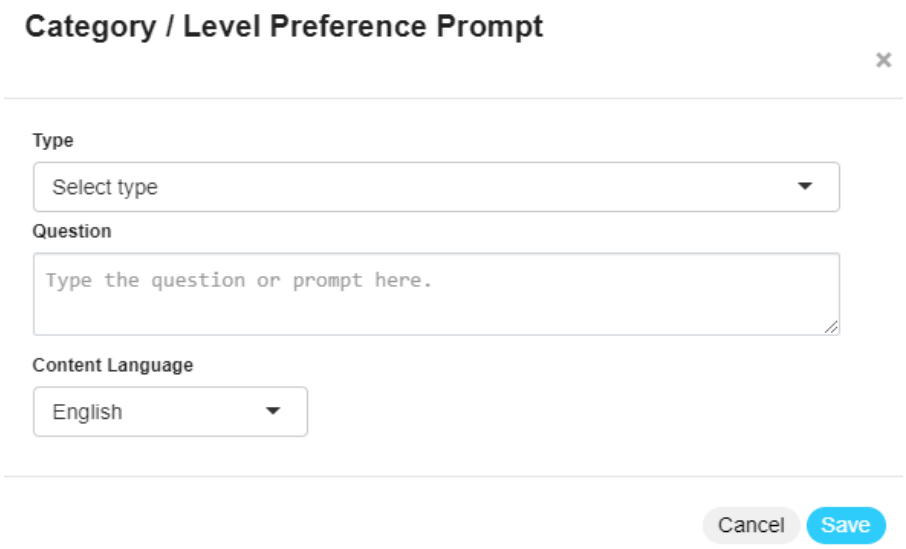


When one clicks on the Administrator Menu option, the following fields will be seen:



By clicking each corresponding button, the user can create the specified Categories, Levels, and Prompts.

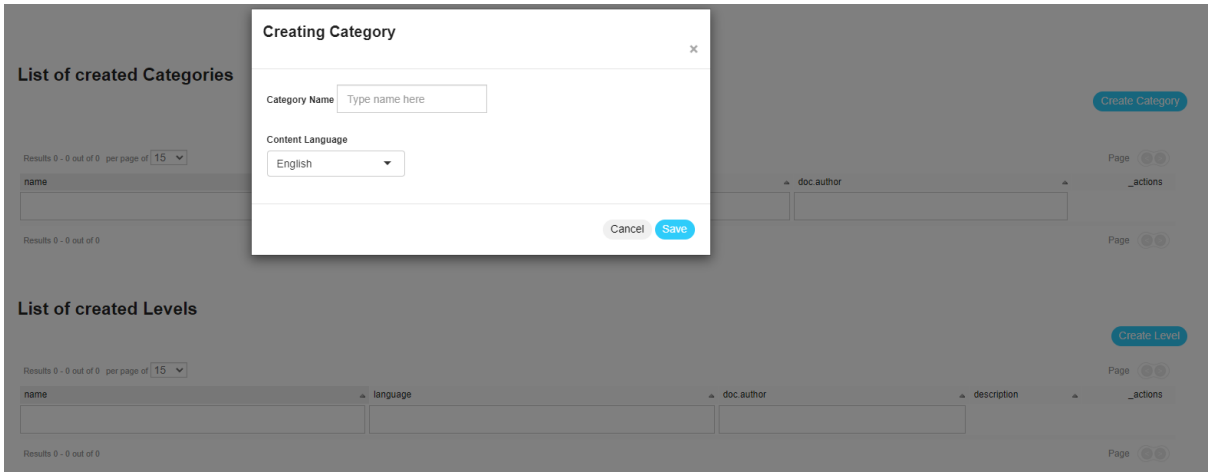
For example, to create a prompt, click on the **'Create Preference**' button and fill in the corresponding fields:



When one has filled in all the fields and saved, waits for a confirmation message to appear on the screen.

While reloading the page or using a filter in the tables, the 'Visitor Preference Prompt' created by the user will be displayed:

The same process must be performed for the rest of the options: **Categories** and **levels**.

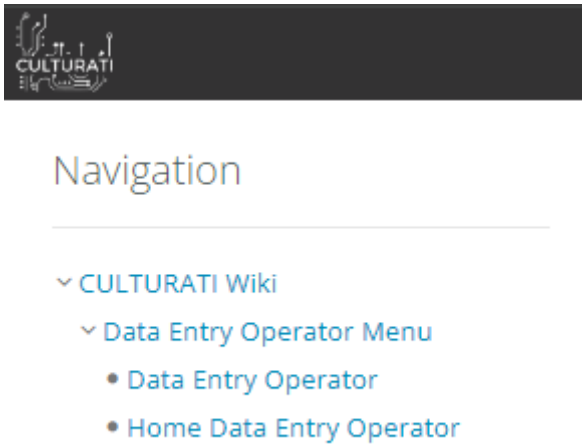


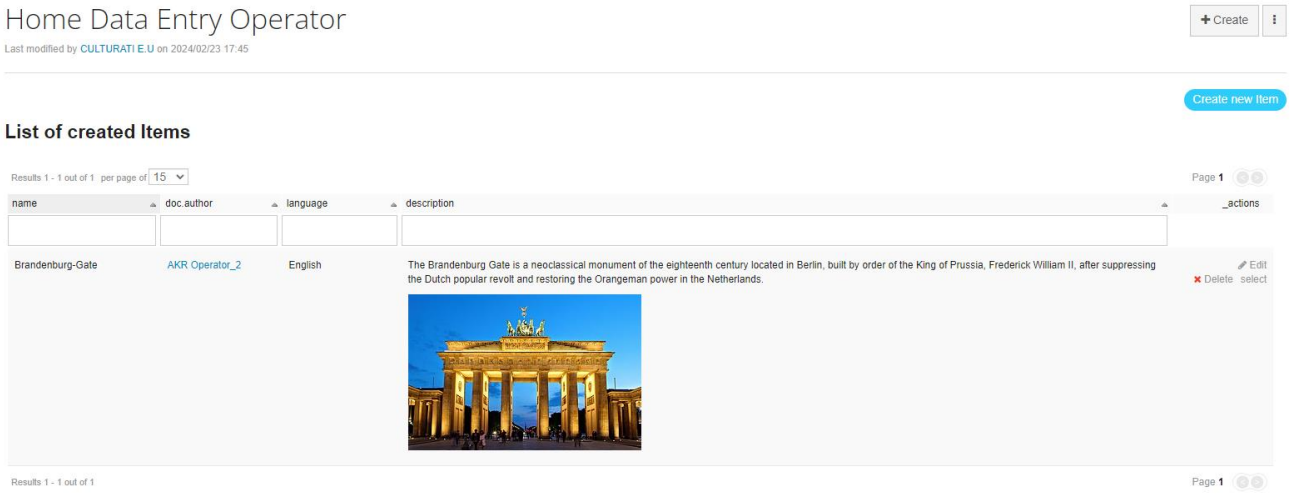
It is important to note that all Administrators will see the same database components. If another user with the same role creates new categories or levels, these will be visible to Administrators, Content Creators, and Editors.

4.2 Data Entry Operator Role

In the "Data Entry Operator" option, the user can create Content of type 'Item'. In the "Home Data Entry Operator" option, the user can visualize all the Content created so far.

After filling out the form, save the information. Have filled out the form entirely and then click on the 'Home Data Entry Operator' option result of the entered Content:



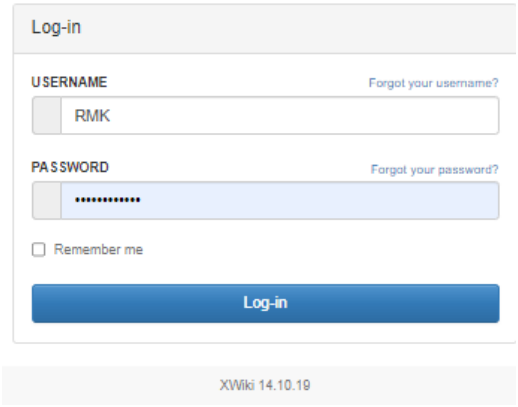


4.3 Content Creator Role

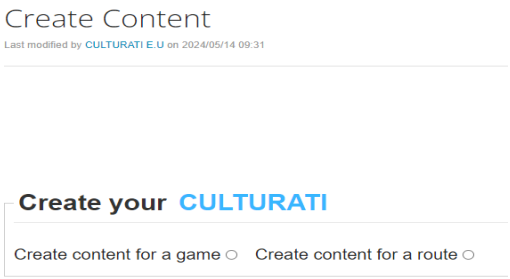
In the "Create Content" section, users can enter questions and additional information for the content. These are the questions and the answers prepared as content. In the "Home Create Content" section, users can view all the Content created so far.

Like the previous role, with the same structure throughout Wiki, the menus with Home will be where the user can view all the content created.

The following is the login screen for the Content Creators.

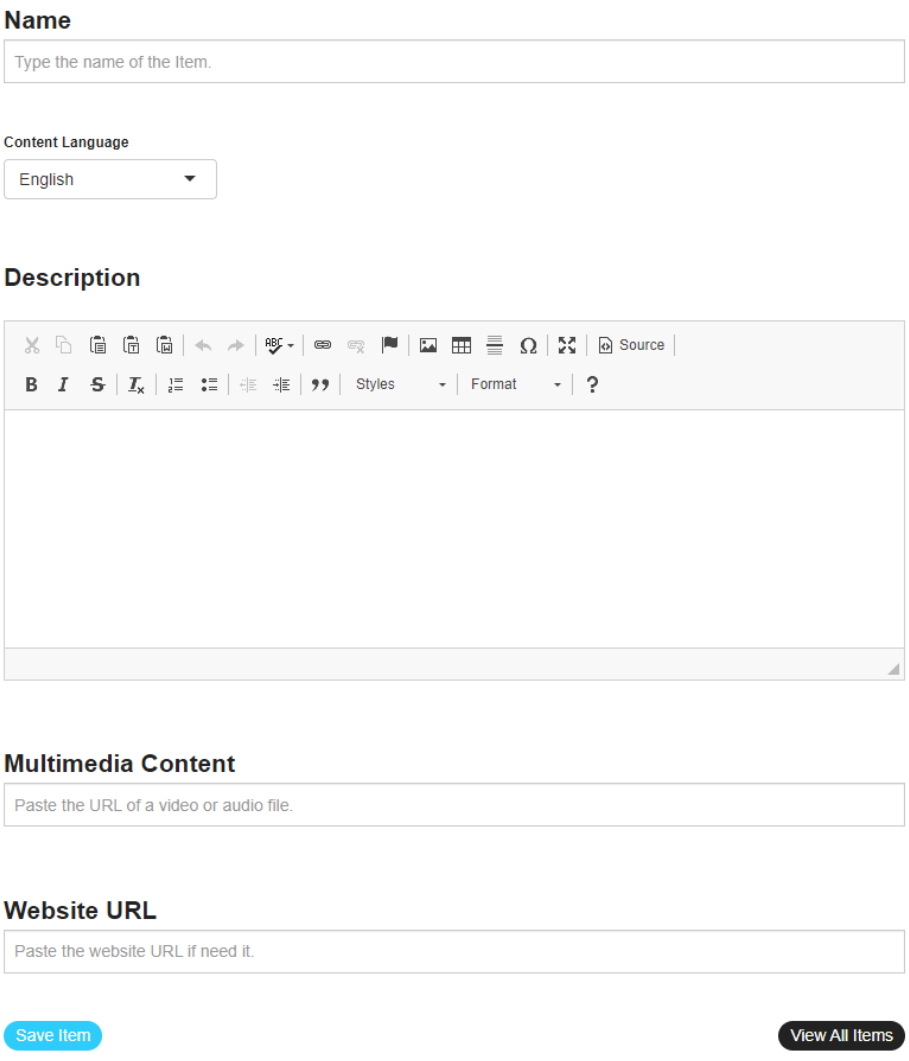


After login, click Create Content to 'Create Content'. To create questions with their respective answers, click 'Create content for a game.' To generate information pieces, click 'Create content for a route.'



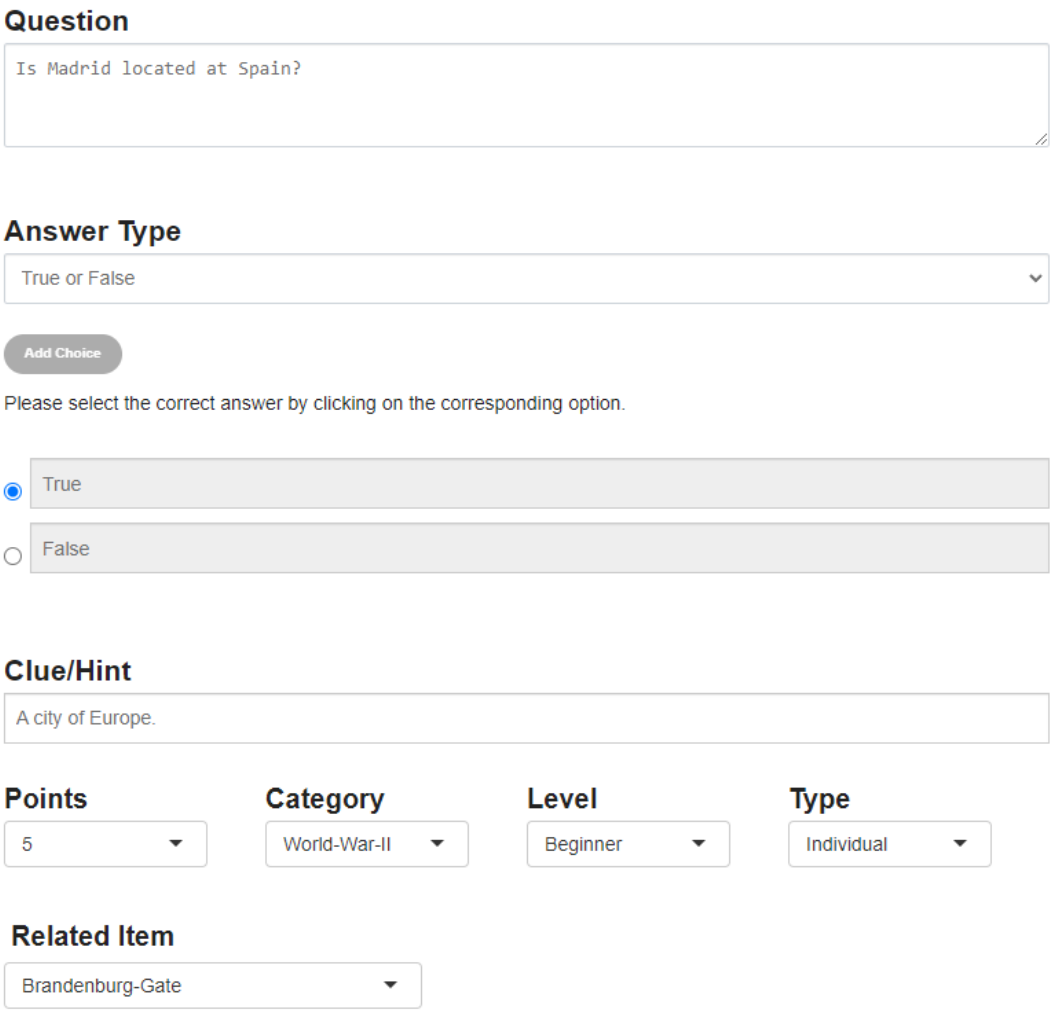
Create Content for a route:

Create Content opens the following interface to fill in the information pieces. Fill out the entire form shown in the interface:



Create a Content

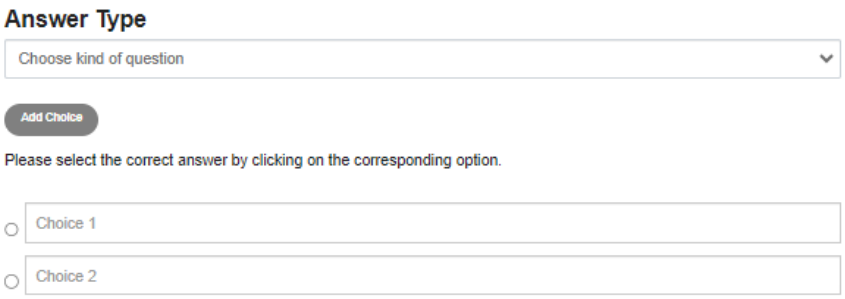
The following interface will be filled out if the **Create a Content** is selected to create questions with their respective answers.



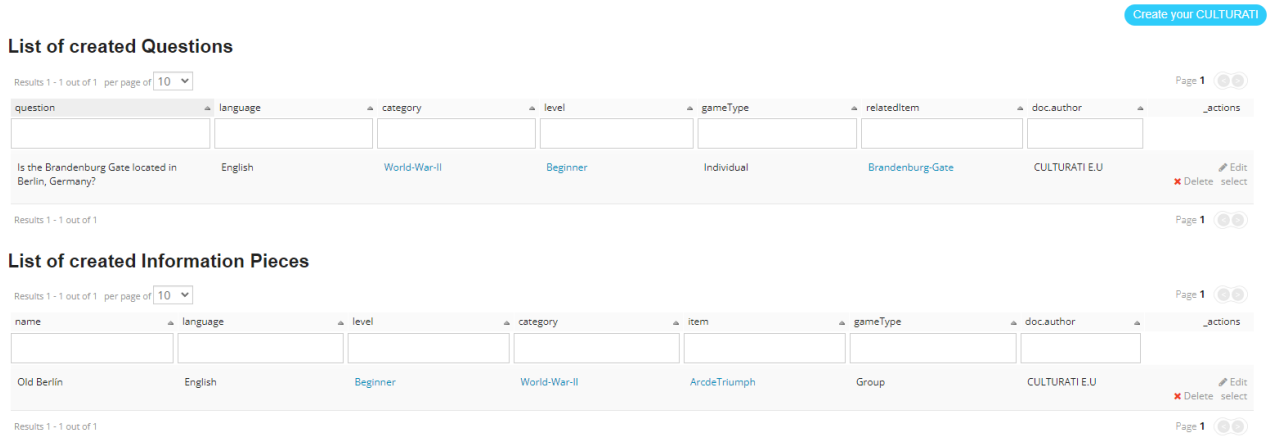
In this interface, fill in all the fields in the form. Not all the fields are mandatory (required). The system has validations and will notify the Content Creator if a required field is not filled in. During this entry, the related items will be connected to the question created by the Content Creator.

Once all the form fields are filled out, click **save,** and the Wiki will show a confirmation message, notifying that the question has been successfully saved. The page will be reloaded, so continuing with another question is possible.

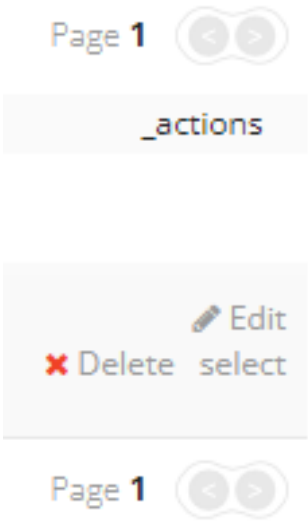
If the answer to a question consists of multiple options (please see the figure below), the Content Creator must list the answers using existing options or add a new option if necessary. Before leaving this section, they must select the correct answer by clicking on it.



After listing the Content with the Home Content Creators menu, to delete, view, or update the created Content, click on the options below:

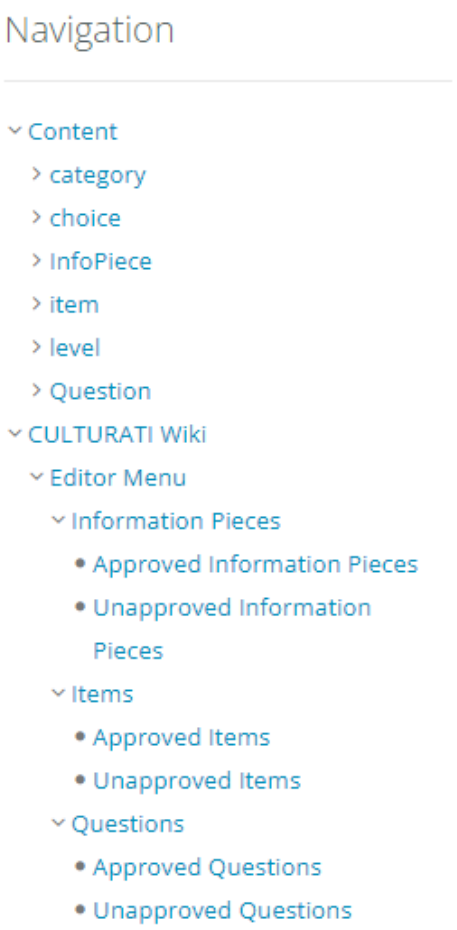


As with the previous roles, to edit, view or delete the Content click on the corresponding button:



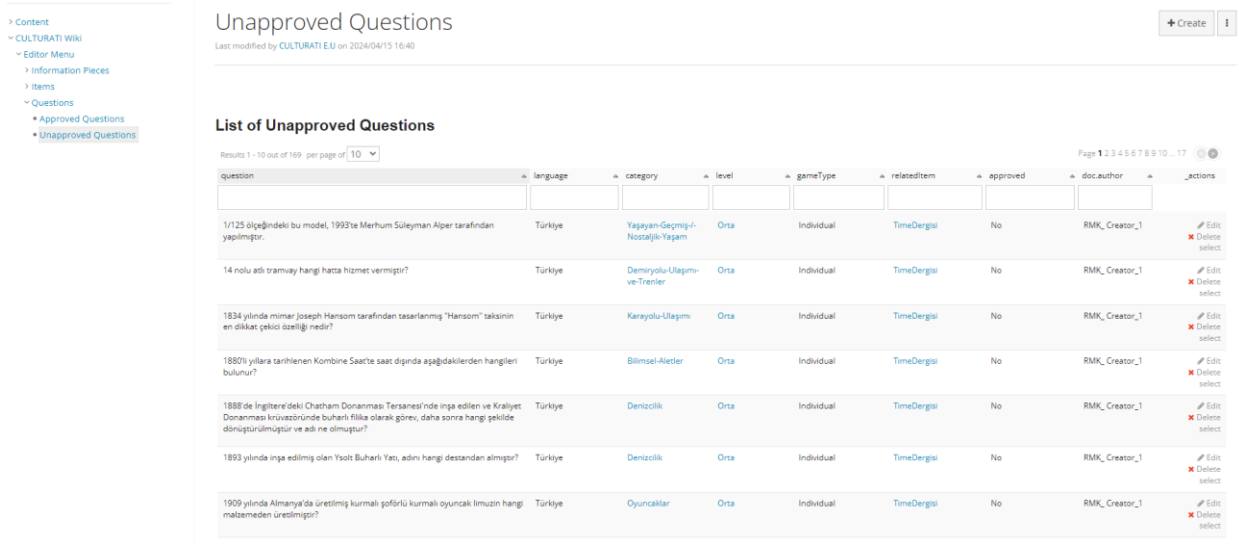
4.4 Editor Role

The Editor role within the Wiki will be able to view the following menus:



The interface of this role is divided into two components:

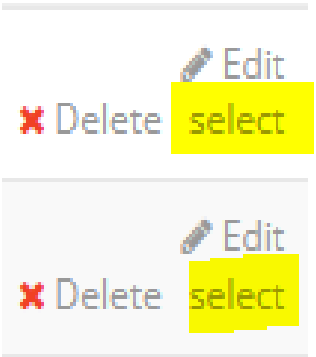
- **Content**: To view all the Content created in the Wiki referring to the other roles, this is the only role that can view the Content created by the other roles.
- **CULTURATI Wiki:** This is the main menu for this role, where both approved and non-approved Content from other roles can be viewed. By default, Information Pieces, Items, and Questions are created as 'Not Approved.' The Editor can then decide whether to approve them or keep them as 'Not Approved.'



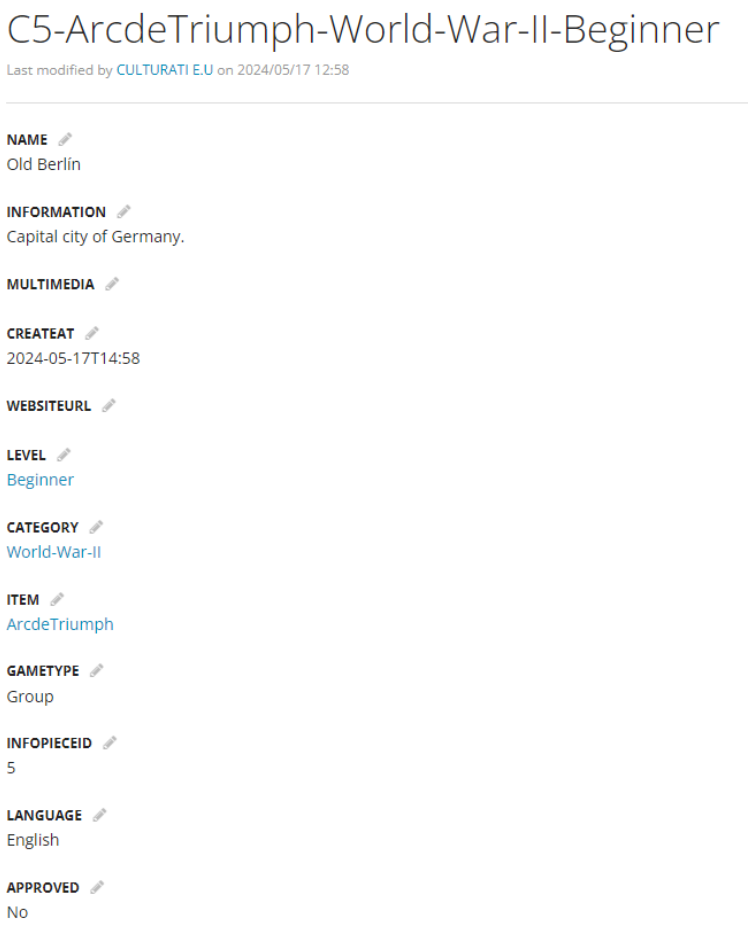
When clicking on any menu that refers to non-approved Content, only 'the Content that has not yet been approved' will be displayed; the other roles in the system have just been created.

Otherwise, click on the approved content menus; only 'the Content previously approved by the Editor' will be displayed. It does not matter which Editor has approved the Content here since it will list all approved Content, regardless of whether the Content Creator or the Editor user previously approved it.

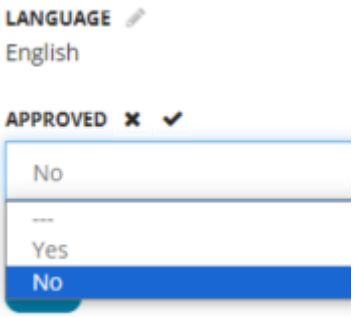
To approve or disapprove the Content created, Click the "Select" button to be redirected to the current view of the created Content:



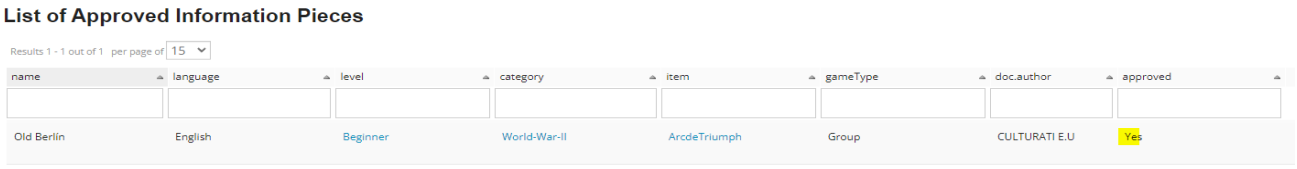
When you click on the desired object, you will see an interface like this:



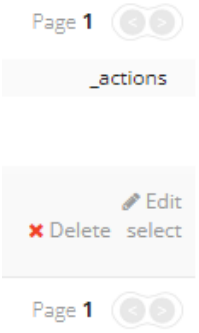
In the last option, the 'Approved' attribute, click on the gray pencil that is next to the attribute, and approve or disapprove the displayed Content:



Select the option " yes" or "no" to approve or not approve and then press the check button; this way, the Content is already in approved status, so return to the approved content menu to view the Content approved with the Editor role.

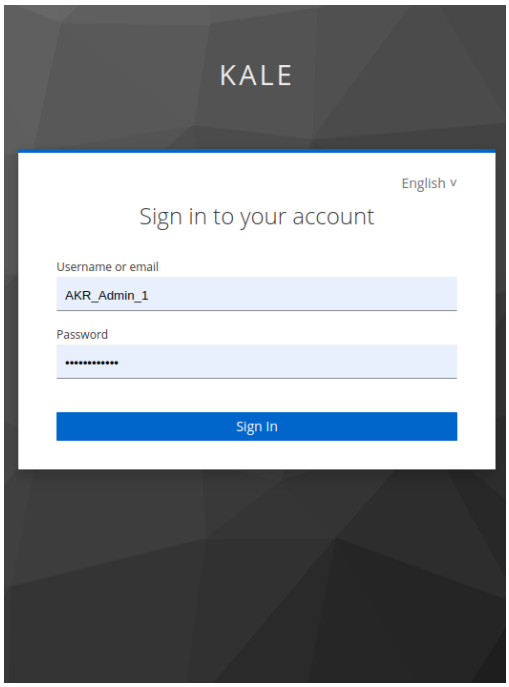


Finally, as with the previous roles, to edit, view or delete the Content, click on the corresponding button:

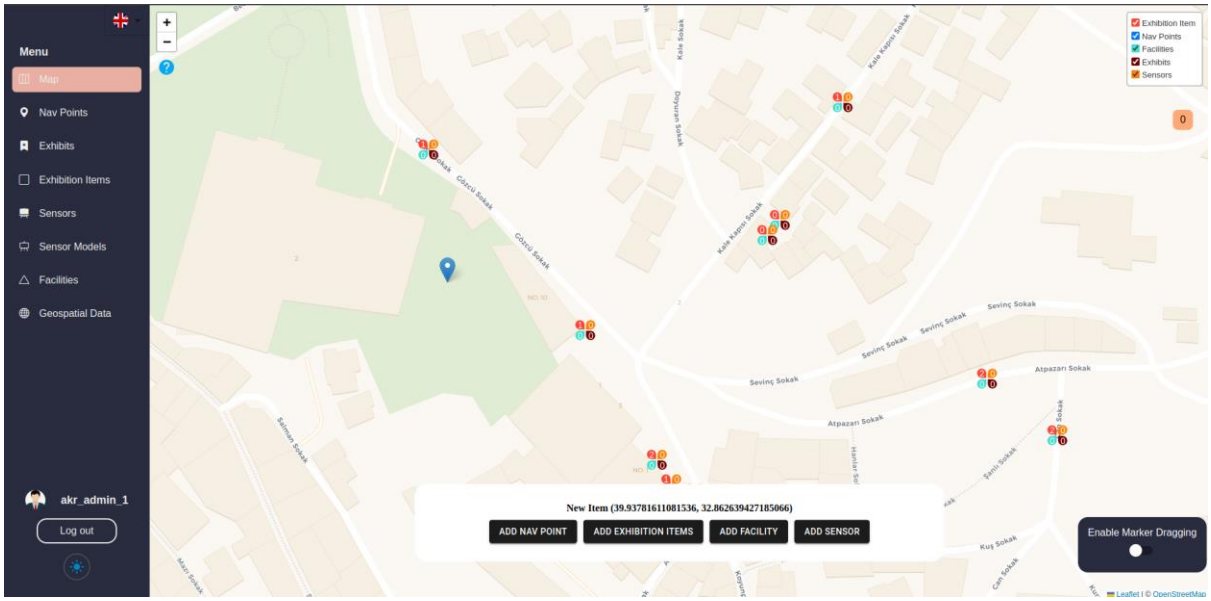


5. CULTURATI Admin Application - Core Main Application: UI Overview

To access the Admin application, enter the username and password:



These credentials will initially be provided by a System Administrator. Once inside the system, the application will automatically detect the role assigned to the logged-in account; depending on each user's role, they will have different rights.



5.1 Side Menu

The Side Menu has the following commands;

- Map: To explore the map and the items on the map.
- Navigation Points: To explore the navigation points on the map and manage the "related items" to the navigation points (like exhibition items, exhibits, sensors, etc).
- Exhibits: To add an exhibit and manage related exhibition items of the exhibit.
- Exhibition Items: To display the exhibition items as a list.
- Sensors: To display the sensors as a list.
- Sensor Models: To display the exhibits as a list.
- Facilities: To display the facilities as a list.
- Geospatial Data: To manage the geospatial data (map data).
- Change display language
- Log out

5.1.1 Exploring the Map

- **Zooming In and Out**

Zoom In: To zoom in on the map, use the + button, typically located on the map interface, or use the scroll wheel on the mouse by scrolling upwards.

Zoom Out: To zoom out, scrolling downwards, use the - button on the map interface or the scroll wheel on the mouse.

Keyboard Shortcuts: Use keyboard shortcuts, such as pressing the + key to zoom in and the - key to zoom out.

- **Panning Across the Map**

Click and Drag: Click on the map and hold down the mouse button, then drag the map in any direction to pan. Release the mouse button to stop panning.
Arrow Keys: Alternatively, use the arrow keys on the keyboard to pan left, right, up, or down.

- **Displaying Different Types of Entities**

The map can display various entities, such as exhibition items, navigation points, facilities, exhibits and sensors. The control which entities are visible on the map using checkboxes at the top right.
Enable an Entity: To display a particular entity type on the map, check the corresponding checkbox. For example, checking "Exhibition Items" will show all exhibition items on the map in an appropriate zoom level.
Disable an Entity: To hide a particular entity type, uncheck the corresponding checkbox. This will remove the entity from the map display.

- **Floors**

The application supports indoor and outdoor maps, so the floor that the user wants to display can be selected using the floor selection on the right side.

- **Marker Dragging**

It is used to change the position of any item on the map.

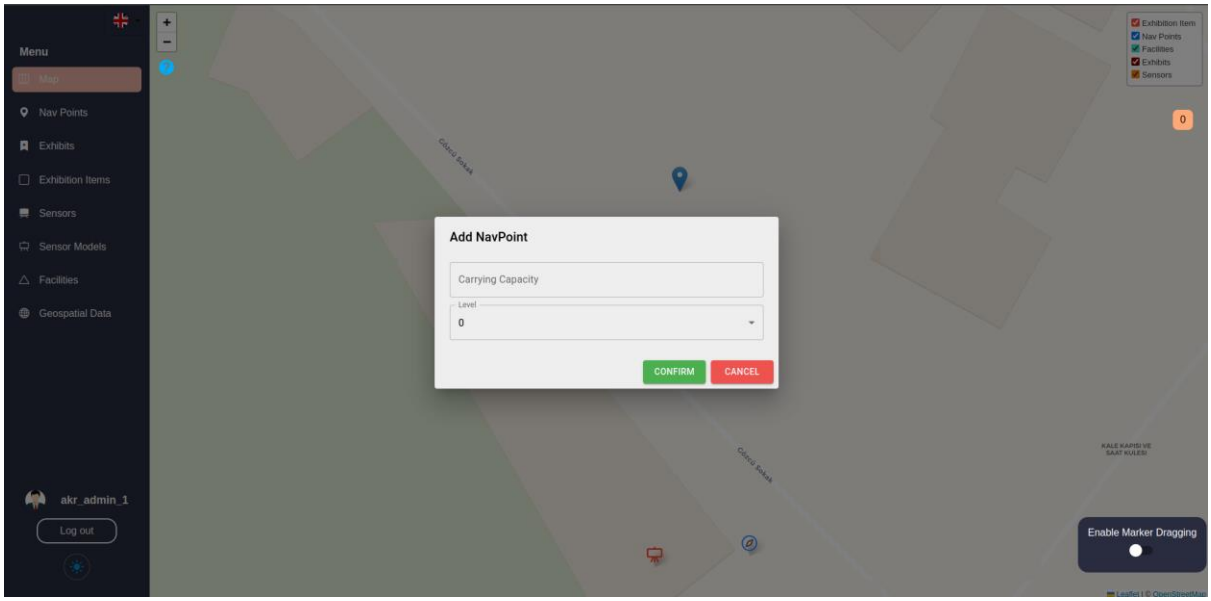
5.1.2 Creating Nav Points

- **Locating the nav point**

When clicking on the map, the system will display a menu with a button to create a navigation point.

- **Creating the navigation point**

The user can click this button; the system will display a dialog box for the user, as shown below. The user can enter the area's Carrying Capacity and click the confirm button. The cancel button will cancel the action and close the dialog box.



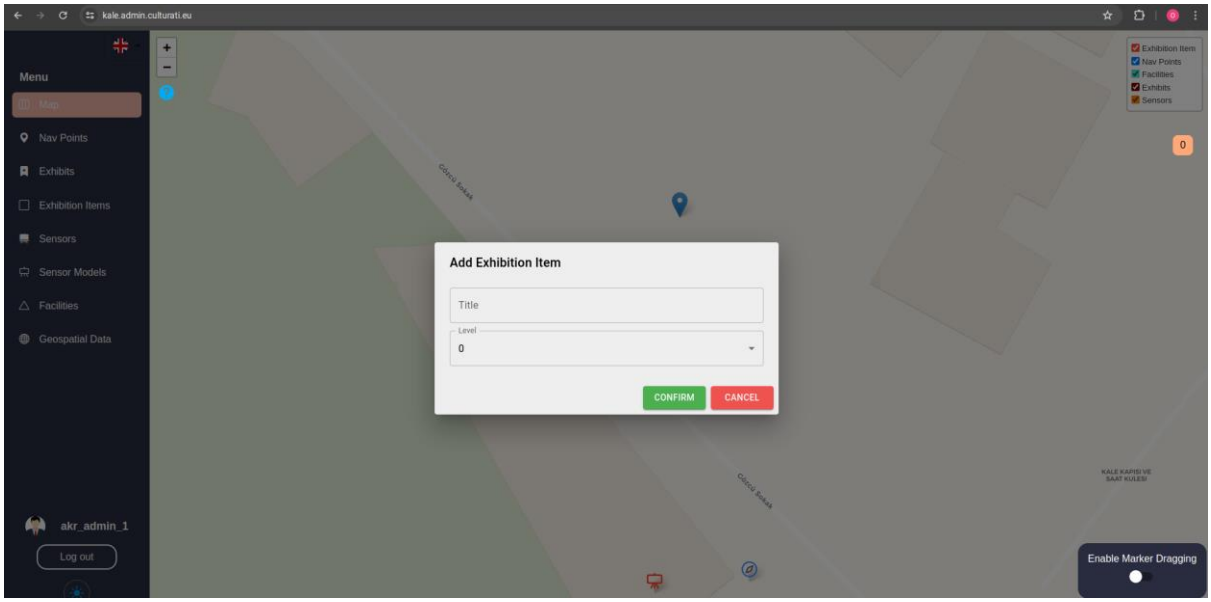
5.1.3 Creating Exhibition Points

- **Locating the exhibition item**

When the user clicks the map, the system will display a menu with a button to create an exhibition item.

- **Creating the exhibition item**

The user can click this button, and the system will display a dialog box to the user, as shown below. The user can enter the details and click the confirm button. The Cancel button will cancel the action and close the dialog box.



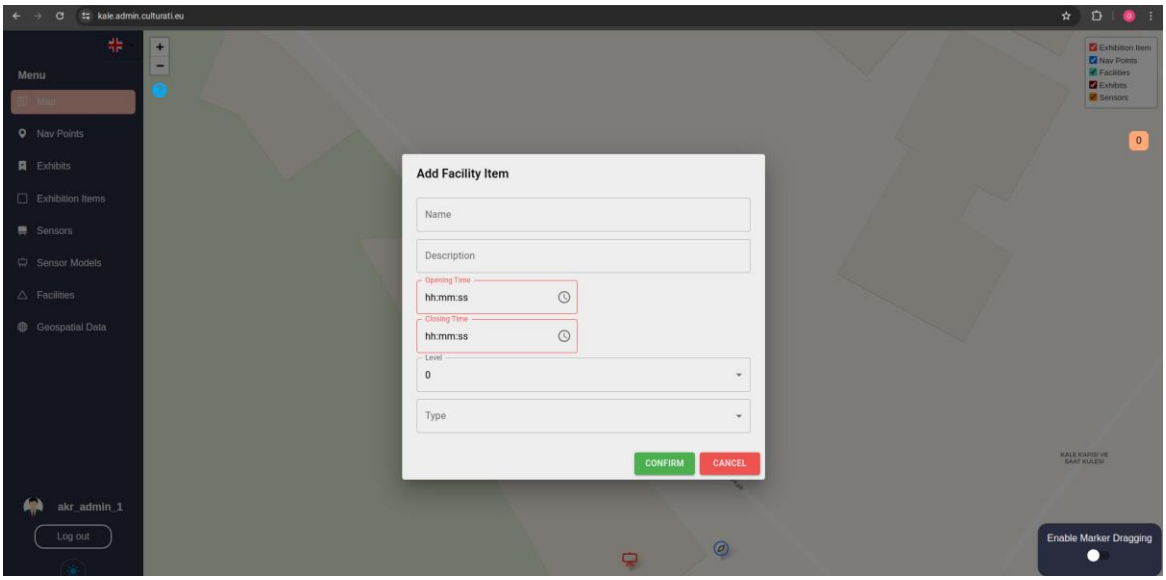
5.1.4 Creating Facility

- **Locating the Facility**

When clicking the map, the system will display a menu with a button to locate the place of a facility.

- **Creating the Facility**

The user can click this button, and the system will display a dialog box to the user, as shown below. The user can enter the details and click the confirm button. The cancel button will cancel the action and close the dialog box.



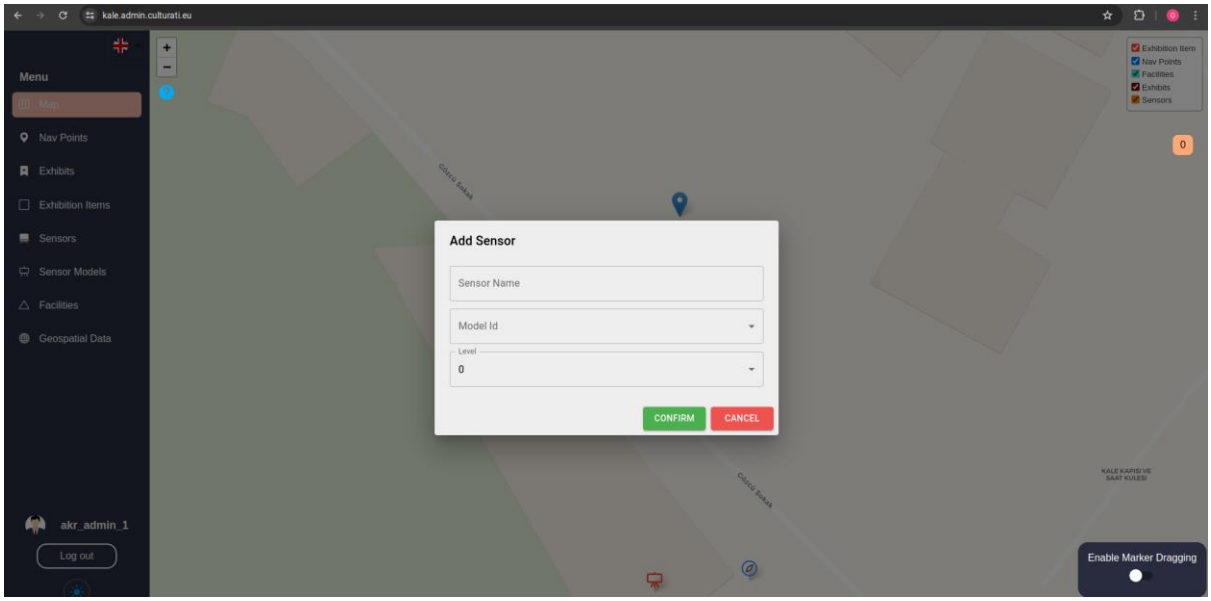
5.1.5 Creating Sensors

- **Locating the sensor**

When clicking the map, the system will display a menu with a button to locate the place of a sensor.

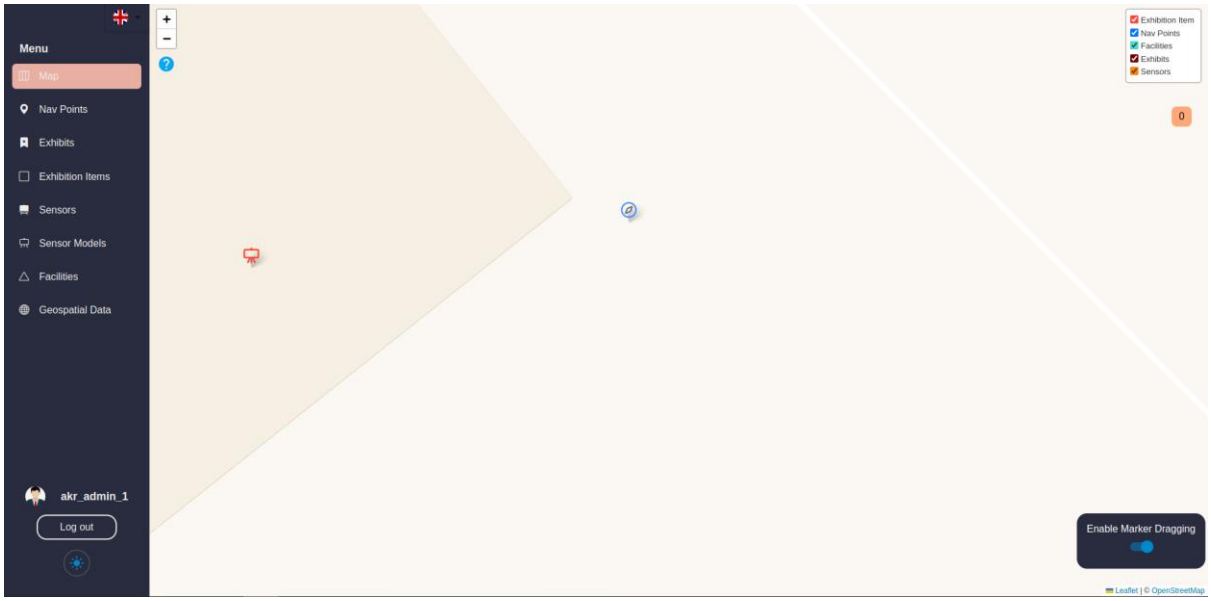
- **Creating the sensor**

The user can click this button, and the system will display a dialog box to the user, as shown below. The user can enter the details and click the confirm button. The cancel button will cancel the action and close the dialog box.



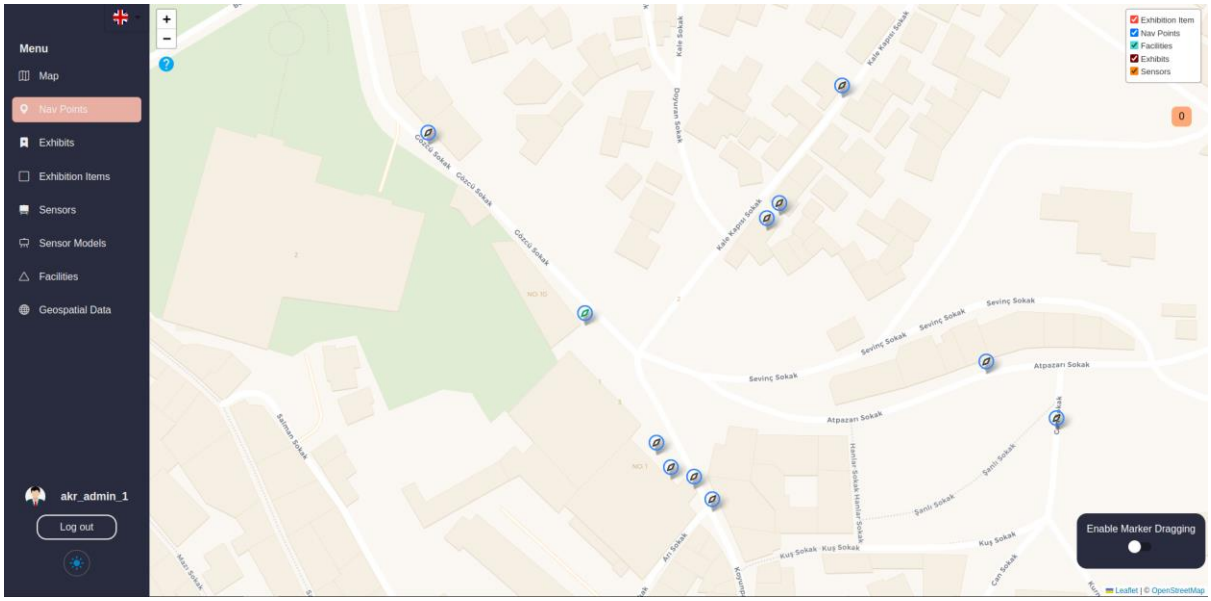
5.1.6 Changing the location of an entity

The user can enable marker dragging (on the bottom left part of the map) and drag any visible item on the map to change the location of the corresponding item.



5.2 Navigation Points

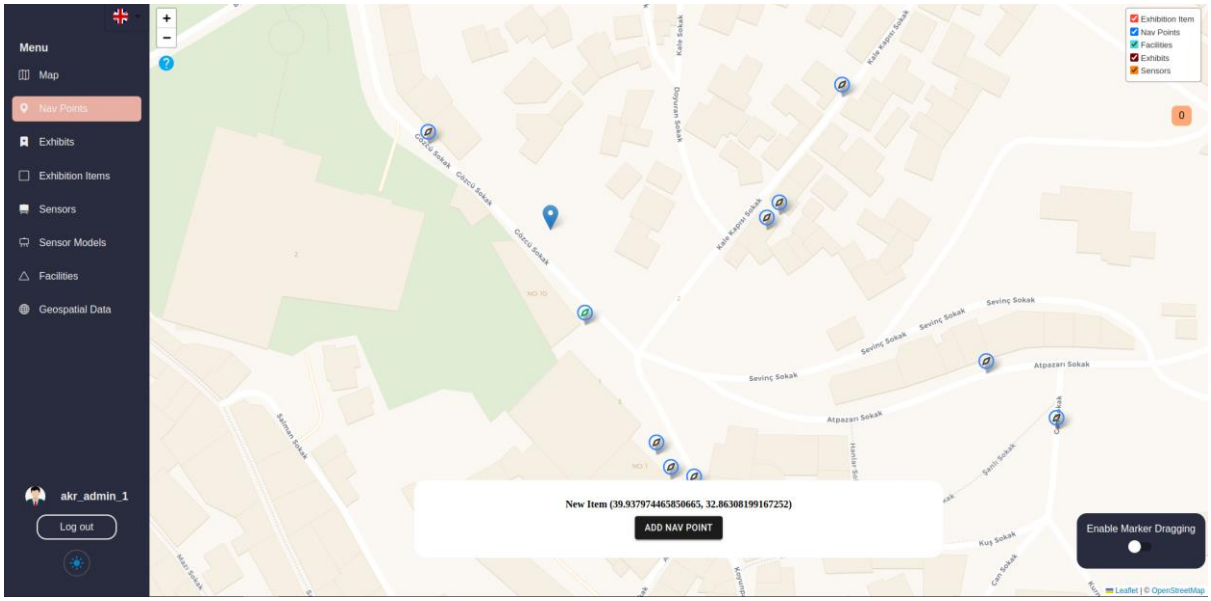
Using this view, the user can view the existing nav points on the map, create a new navigation point, display its details and relate exhibition items/sensors/facilities/exhibits to a navigation point.



5.2.1 Creating Navigation Points

- **Locating the navigation point**

When clicking the map, the system will display a menu with a button to locate the place of a navigation point.

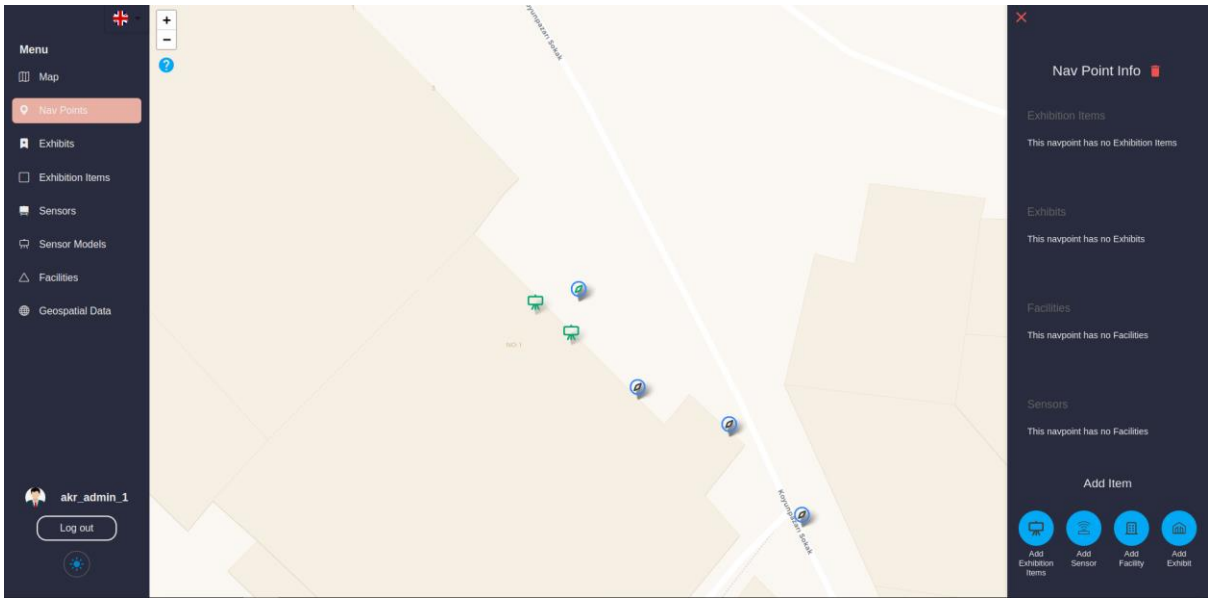


- **Creating the navigation point**

The user can click this button, and the system will display a dialog box to the user, as shown below. The user can enter the details and click the confirm button. The Cancel button will cancel the action and close the dialog box.

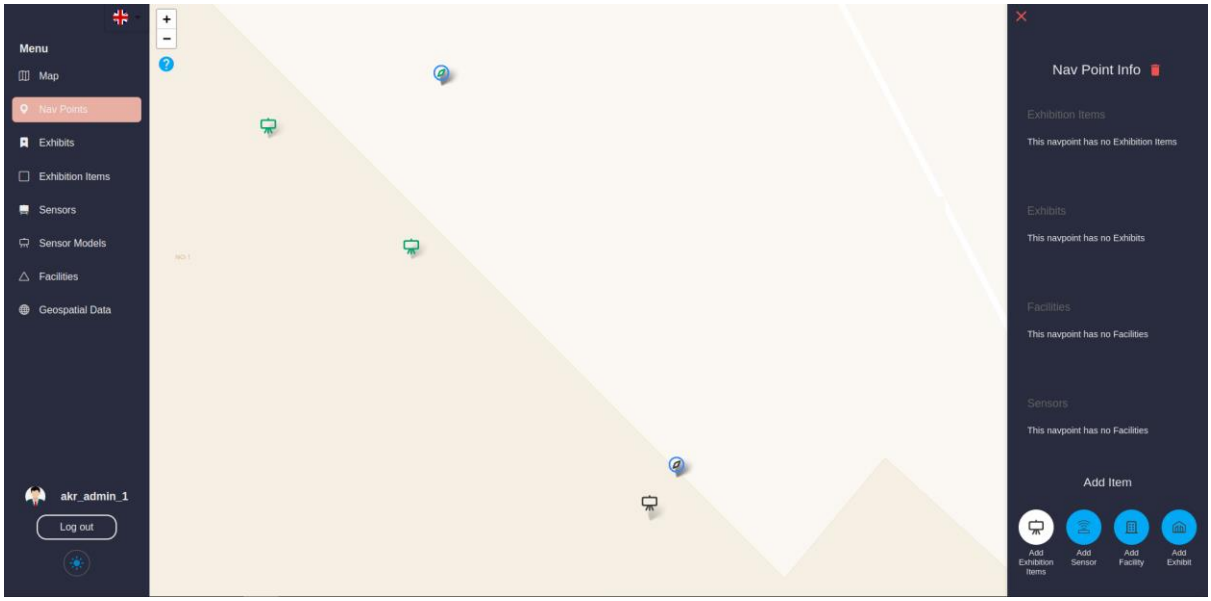
5.2.2 Displaying the details of a Nav Point

When clicking on a navigation point, the system will display a view on the right that contains the details about the navigation point.



5.2.3 Adding an exhibition item to a Navigation Point

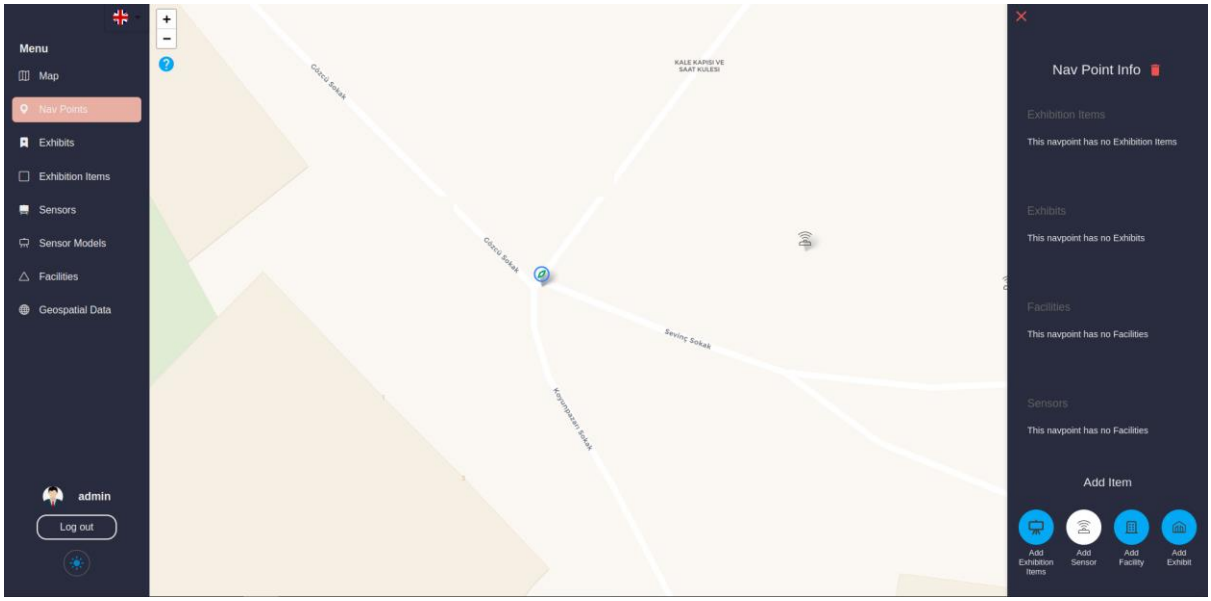
When the user clicks "Add Exhibition Items", all the exhibition items will be displayed on the map. The ones already linked to the selected navigation points are green; the rest are black. The user can click on an exhibition item to link with the nav point.



After linking a new entity with the navigation point, its color changes to green.

5.2.4 Adding a Sensor to a Navigation Point

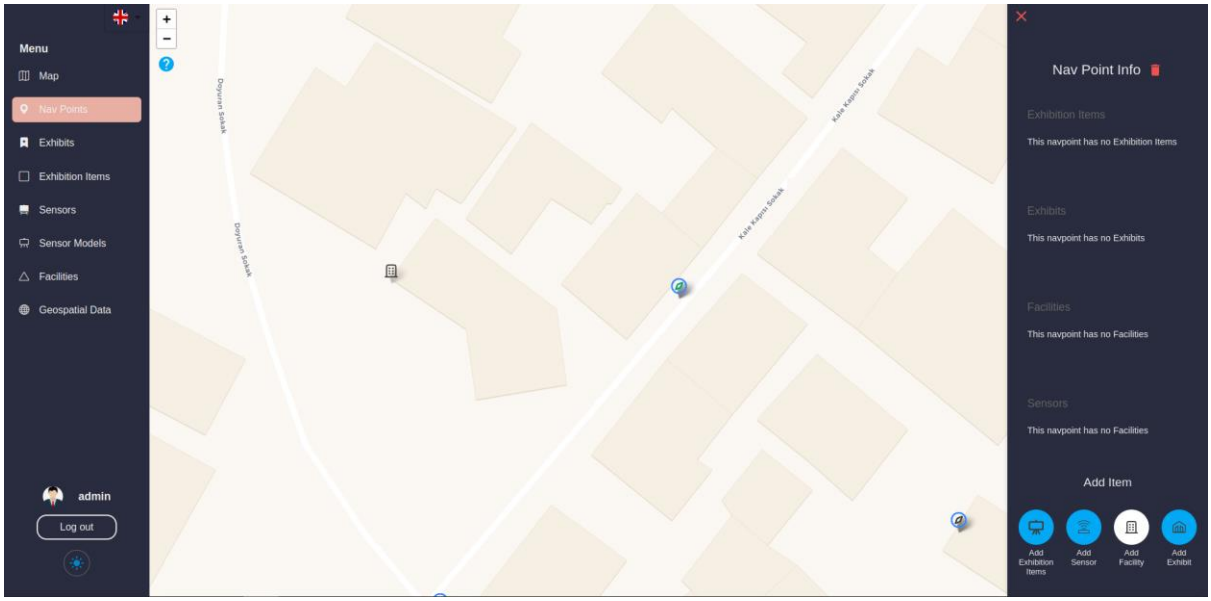
When the user clicks "**Add Sensors**", all the sensors will be displayed on the map. The ones already linked to the selected navigation points are green; the rest are black. The user can click on a sensor to link with the navigation point.



After linking a new entity to the navigation point, its color changes to green.

5.2.5 Adding a Facility to a Navigation Point

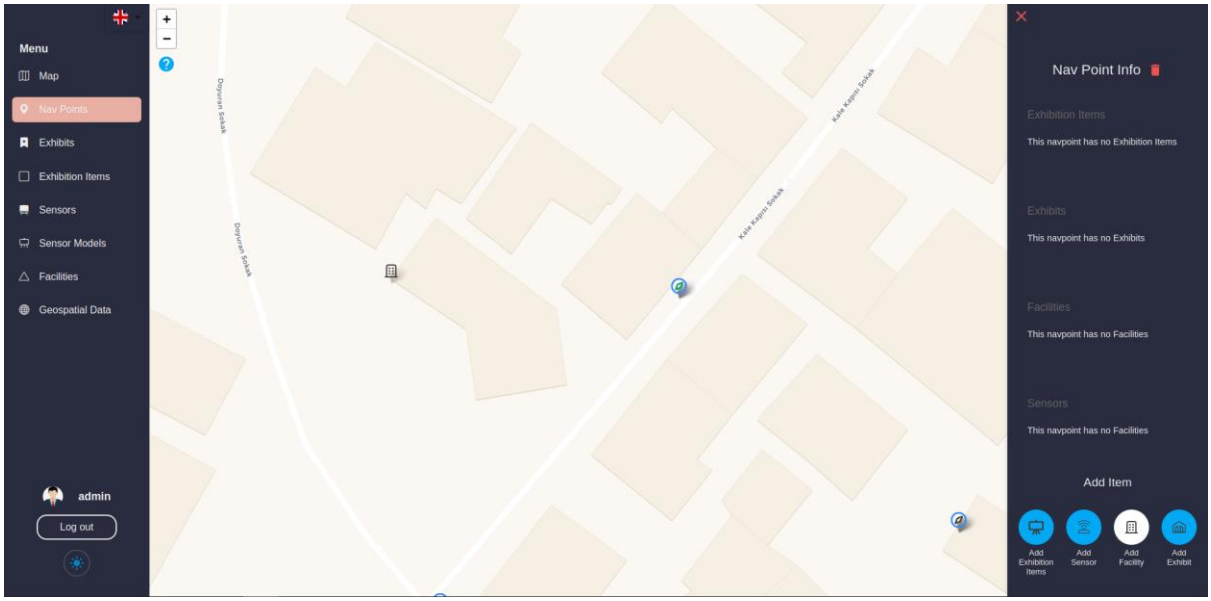
When the user clicks "**Add Facilities**", all the facilities will be displayed on the map. The ones already linked to the selected navigation points are green; the rest are black. The user can click on a facility to link with the navigation point.



After linking a new entity to the navigation point, its color changes to green.

5.2.6 Adding an Exhibit to a Navigation Point

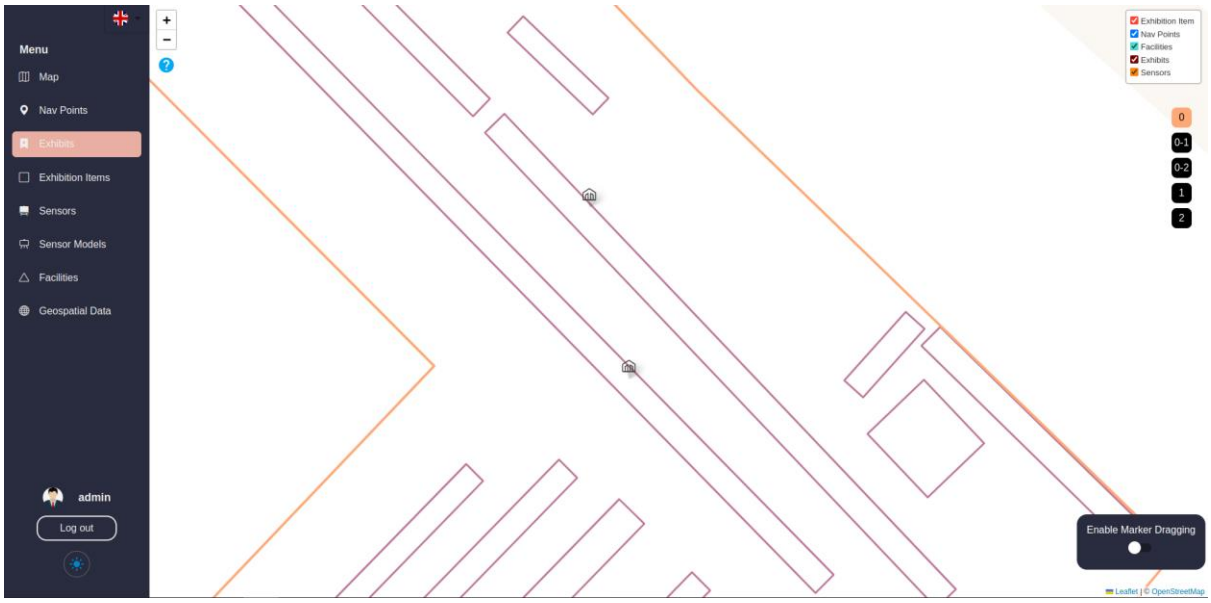
When the user clicks "**Add Exhibits**", all the exhibits will be displayed on the map. The ones already linked to the selected navigation points are green; the rest are black. The user can click on an exhibit to link with the navigation point.



The color changes to green after linking a new entity to the navigation point.

5.3 Exhibits

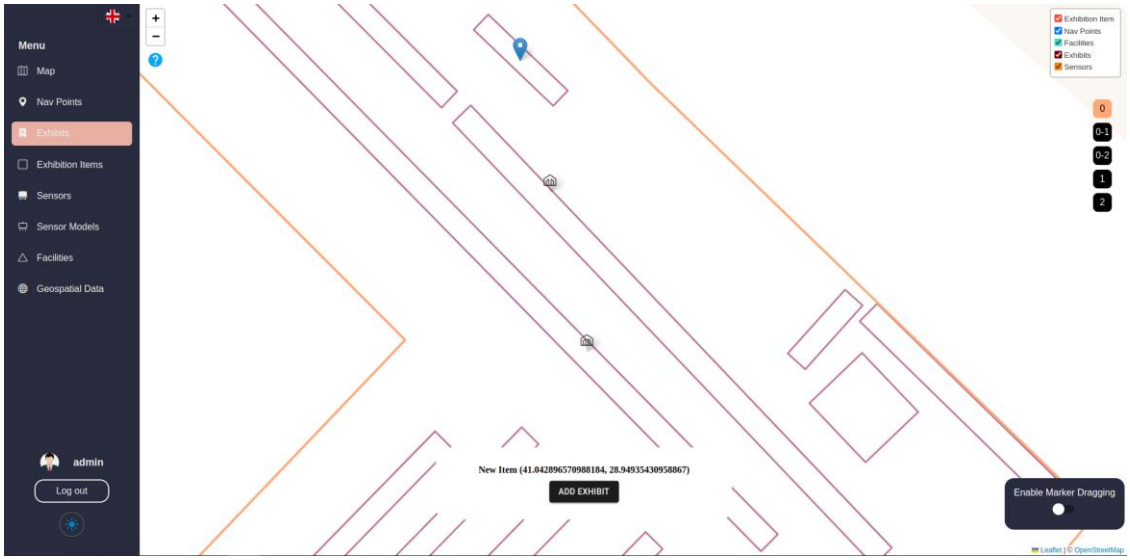
Using this view, the user can view the existing exhibits on the map, create a new exhibit, display its details and relate exhibition items to an exhibit.



5.3.1 Creating Exhibits

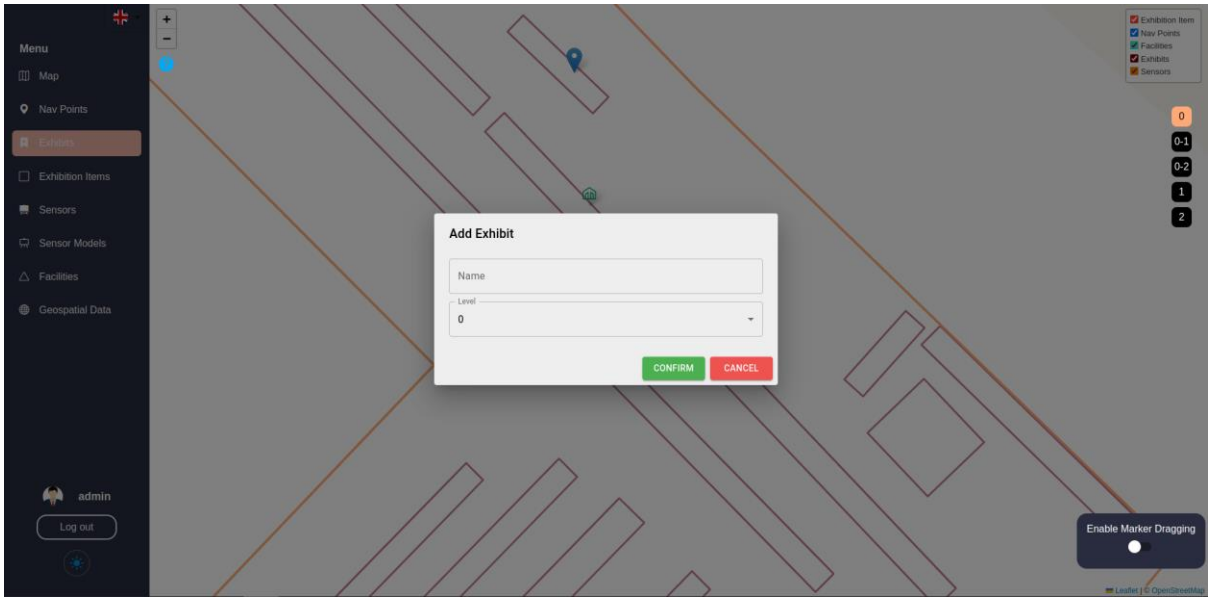
- **Locating the exhibit**

When clicking the map, the system will display a menu, which includes a button to create an exhibit.



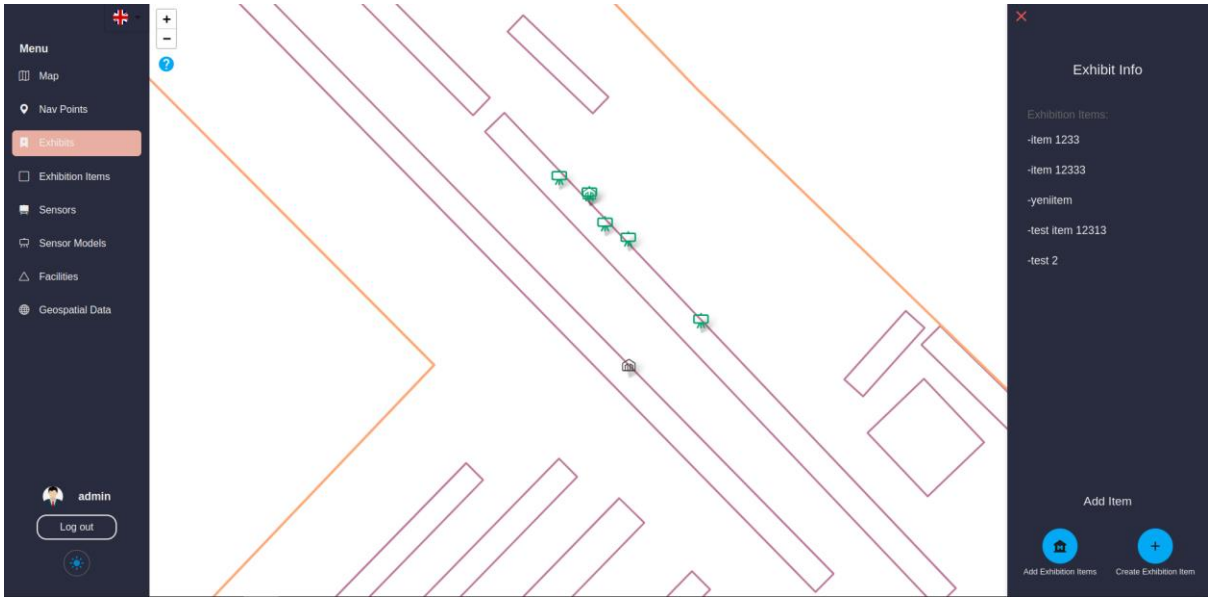
- **Creating the exhibit**

The user can click this button, and the system will display a dialog box to the user, as shown below. The user can enter the details and click the confirm button. The Cancel button will cancel the action and close the dialog.



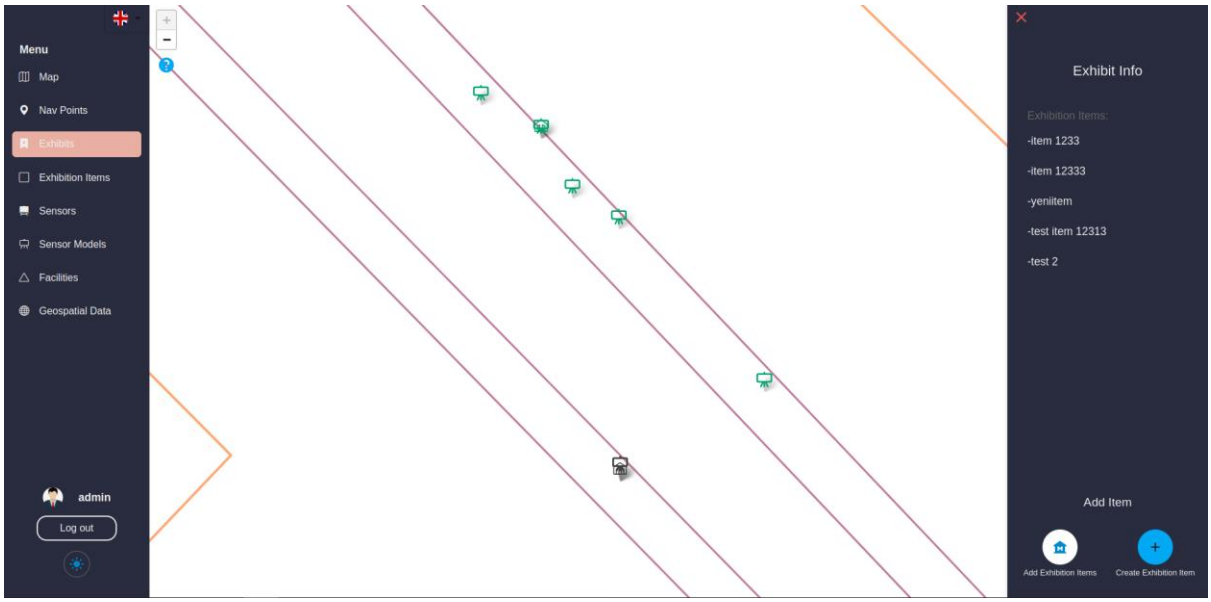
5.3.2 Displaying the details of an exhibit

When clicking on an exhibit, the system will display a view on the right containing the exhibit details.



5.3.3 Adding an exhibition item to an exhibit

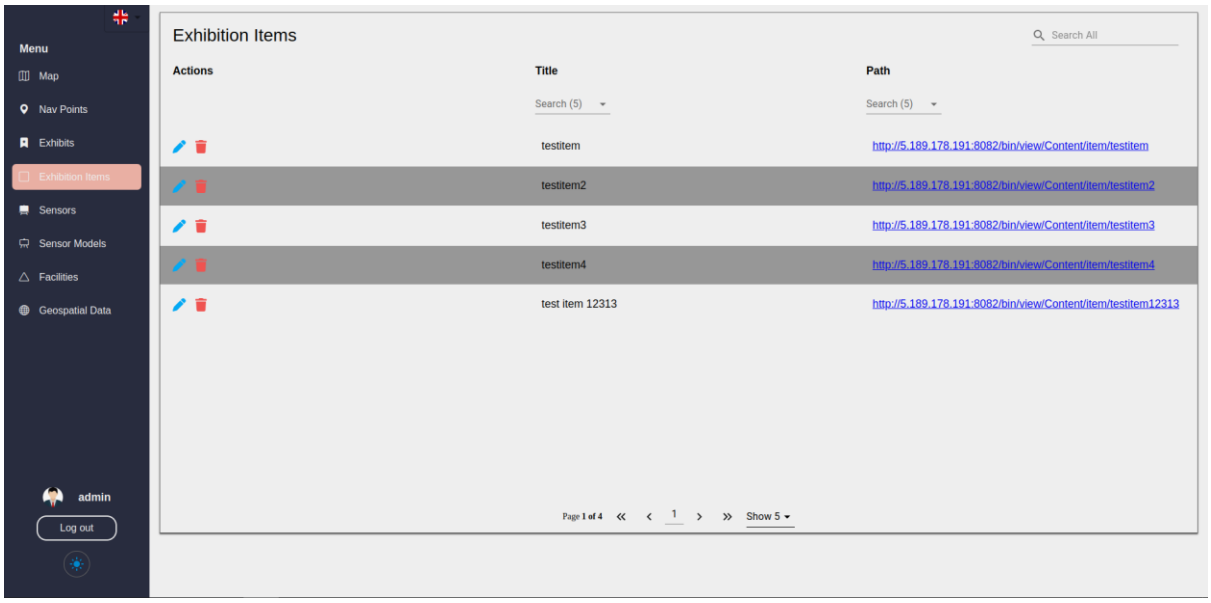
When the user clicks "Add Exhibition Items," all the exhibition items will be displayed on the map. The ones already linked to the selected navigation points are green, and the rest are black. The user can click on an exhibition item to link to the exhibit.



The color changes to green after linking a new entity with the navigation point.

5.4. Exhibition Items

The user can view the existing exhibition items in a table using this view.



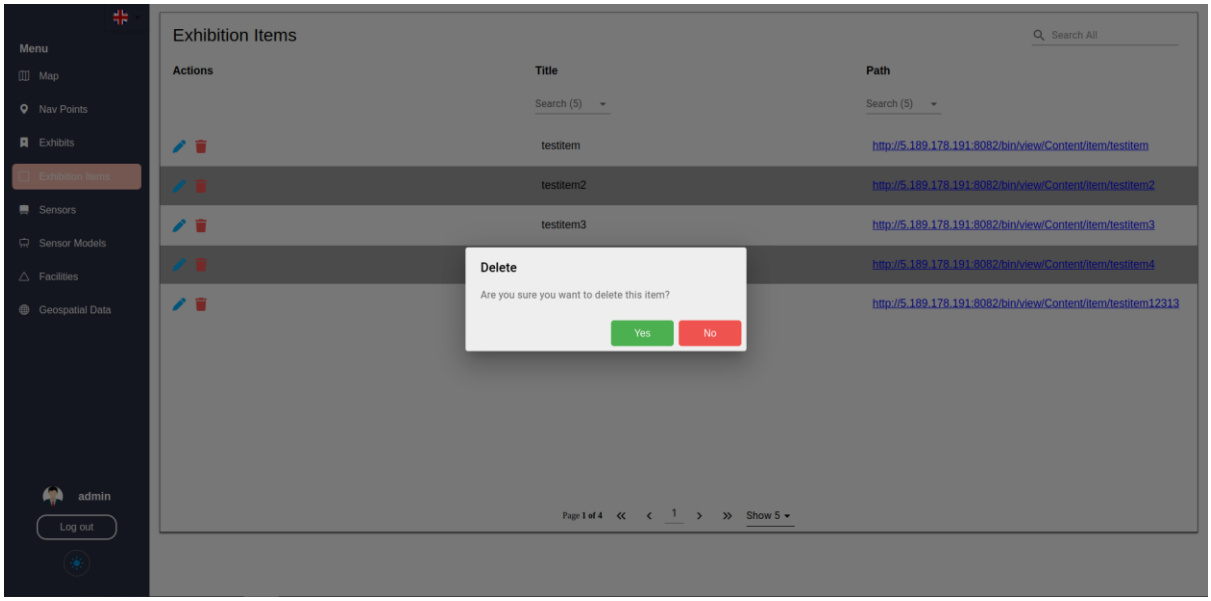
The table contains the titles of the exhibition items and the link to the Wikiitem's Wiki page for the content details.

5.4.1 Searching for an Item

The user can search for a specific item using the search boxes in the columns.

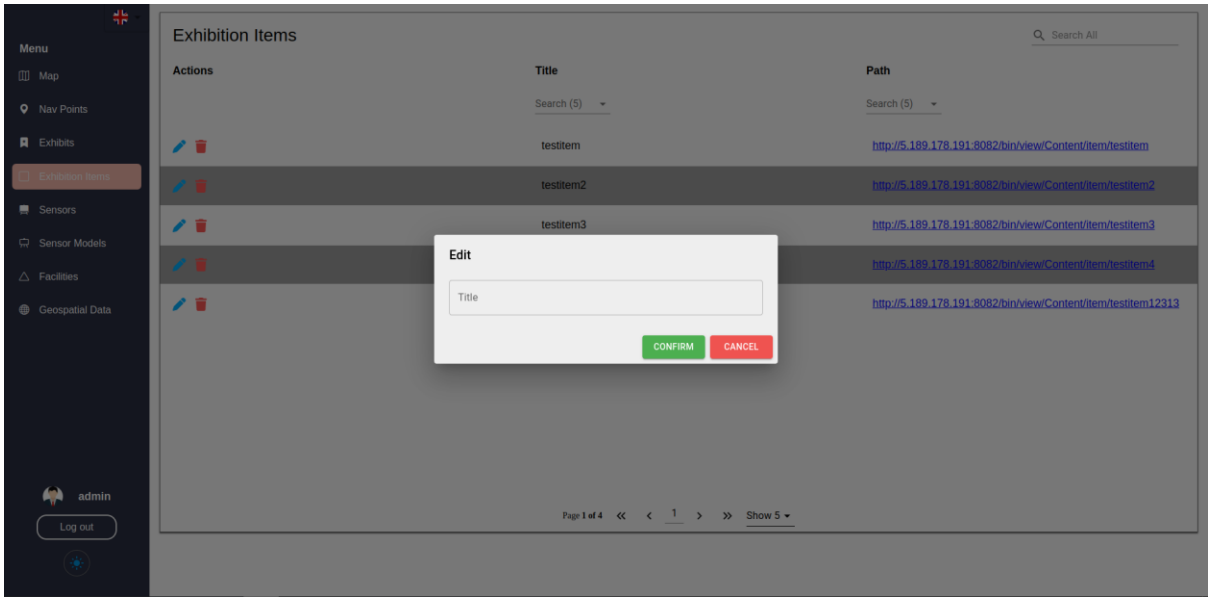
5.4.2 Deleting an Exhibition Item

To delete an exhibition item, the user clicks the delete button on the leftmost side of the corresponding row. When this button is clicked, a confirmation message appears, and if the user confirms the action, the items are deleted:



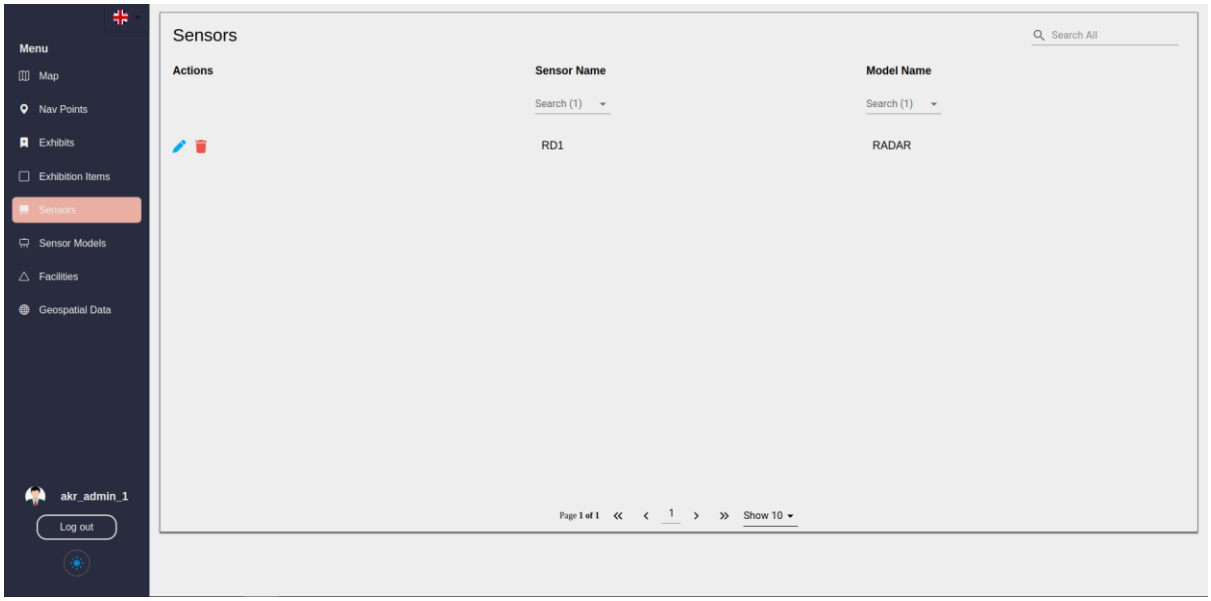
5.4.3 Editing an Exhibition Item

To edit an exhibition item, the user clicks on the edit button on the leftmost side of the corresponding row. A dialogue box appears when this button is clicked, and the user can edit the item's properties.



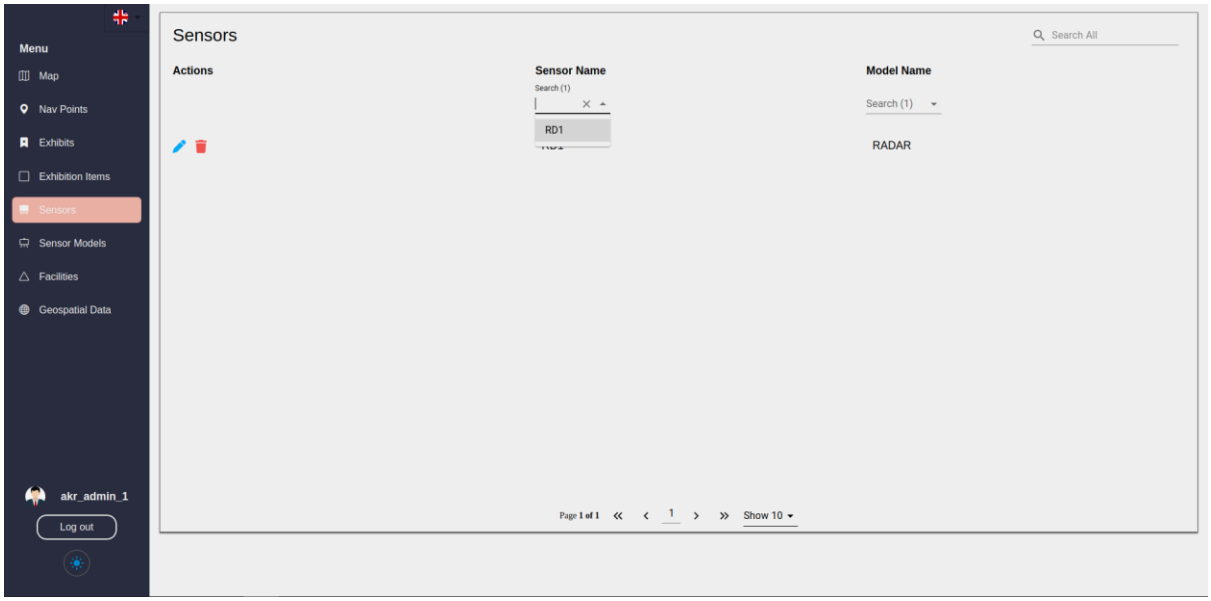
5.5 Sensors

The user can view the existing sensors in a table using this view. The table contains the names and models of the sensors.



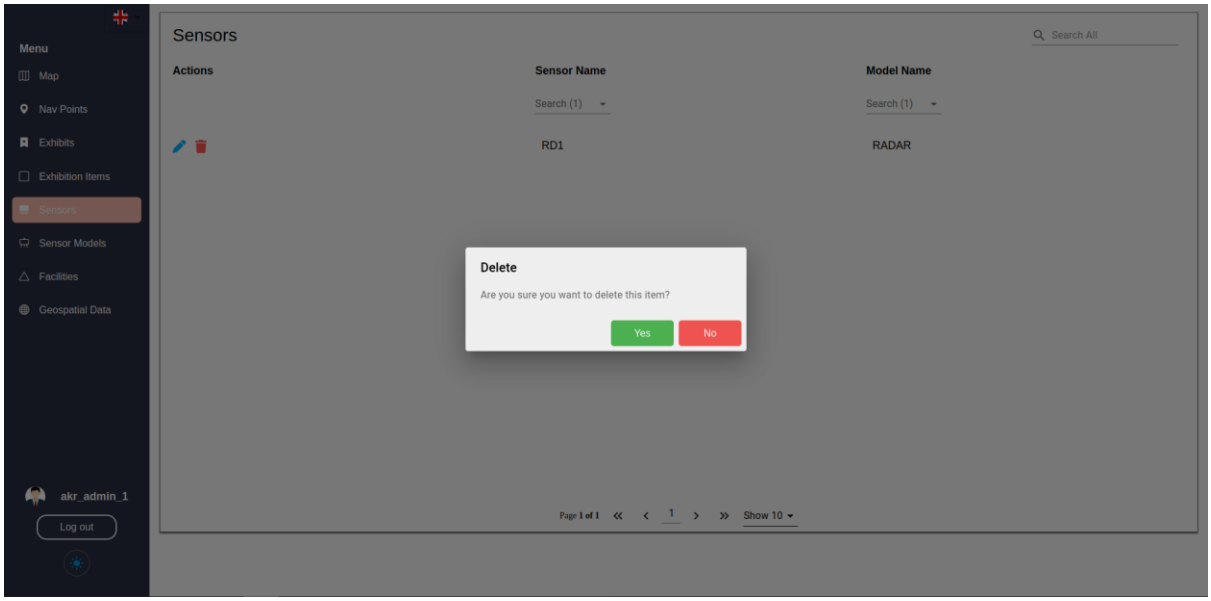
5.5.1 Searching a Sensor

The user can search for specific sensors using the search boxes in the columns.



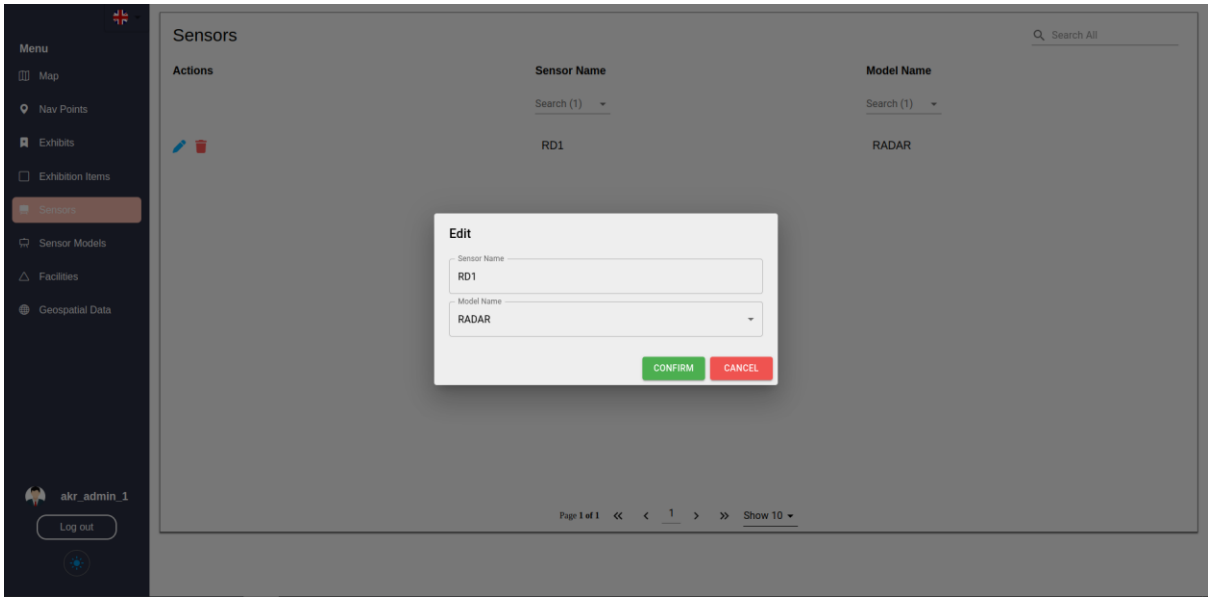
5.5.2 Deleting a Sensor

To delete a sensor, the user clicks the delete button on the leftmost side of the corresponding row. When this button is clicked, a confirmation message appears, and if the user confirms the action, the items are deleted:



5.5.3 Editing a Sensor

To edit a sensor, the user clicks on the edit button on the leftmost side of the corresponding row. When this button is clicked, a dialog appears, and the user can edit the properties of the sensor.



5.5.4 Sensor Models

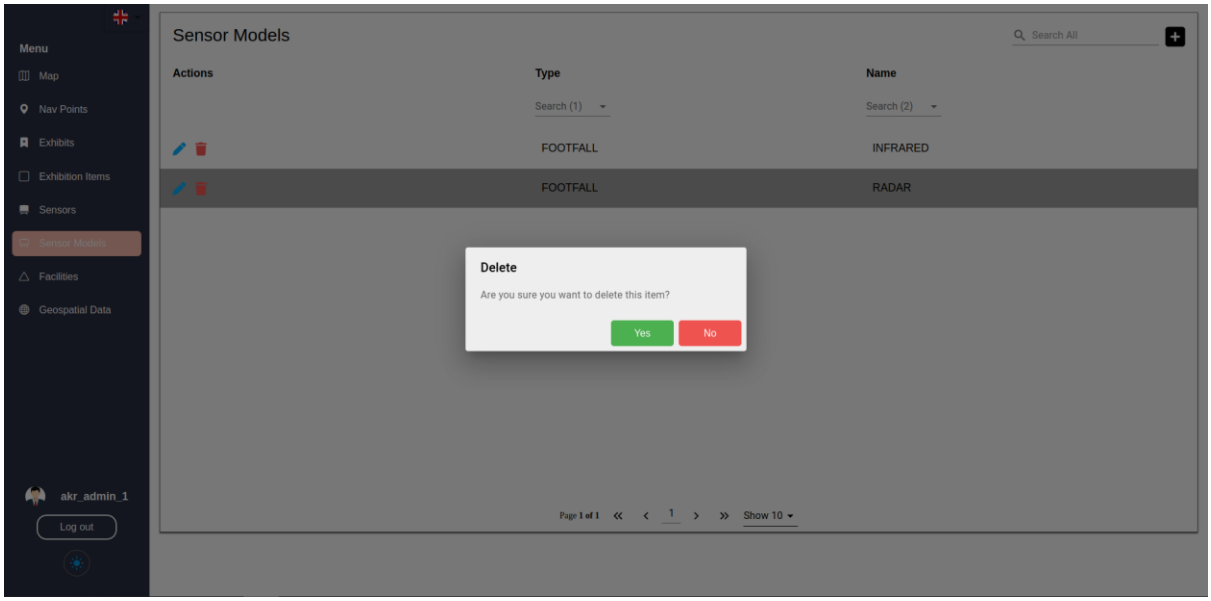
The user can view the existing sensor models in a table using this view. These sensor models are used while creating the sensors. The table contains the names and types of the sensor models.

5.5.5 Searching a Sensor Model

The user can search for specific models using the search boxes in the columns.

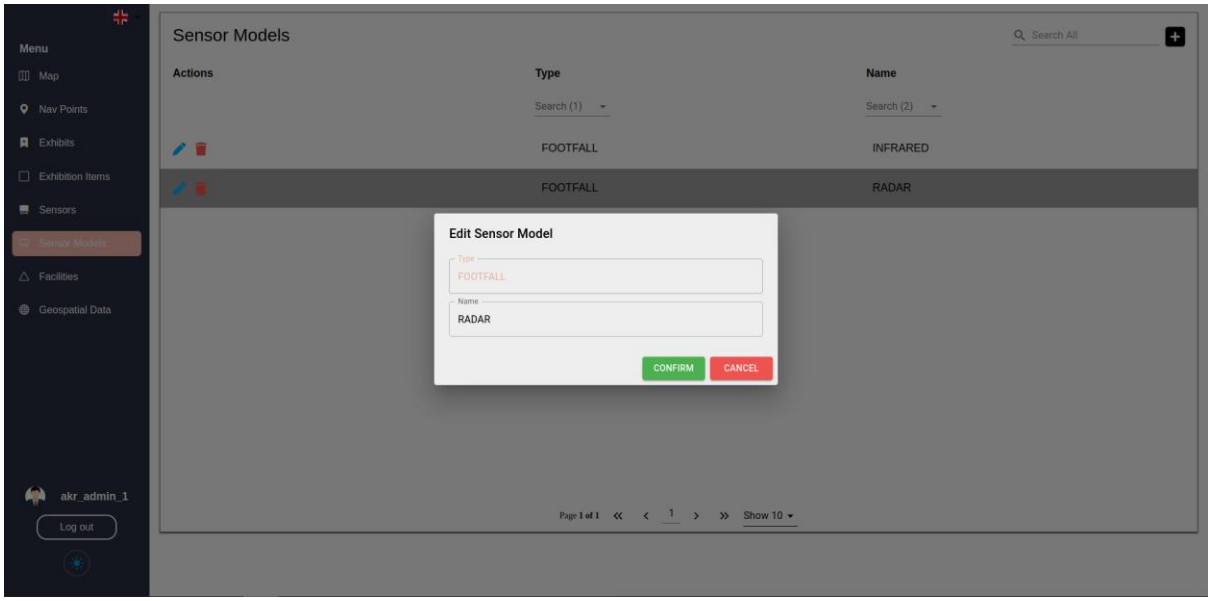
5.5.6 Deleting a Sensor Model

To delete a sensor model, the user clicks the delete button on the leftmost side of the corresponding row. When this button is clicked, a confirmation message appears, and if the user confirms the action, the items are deleted:



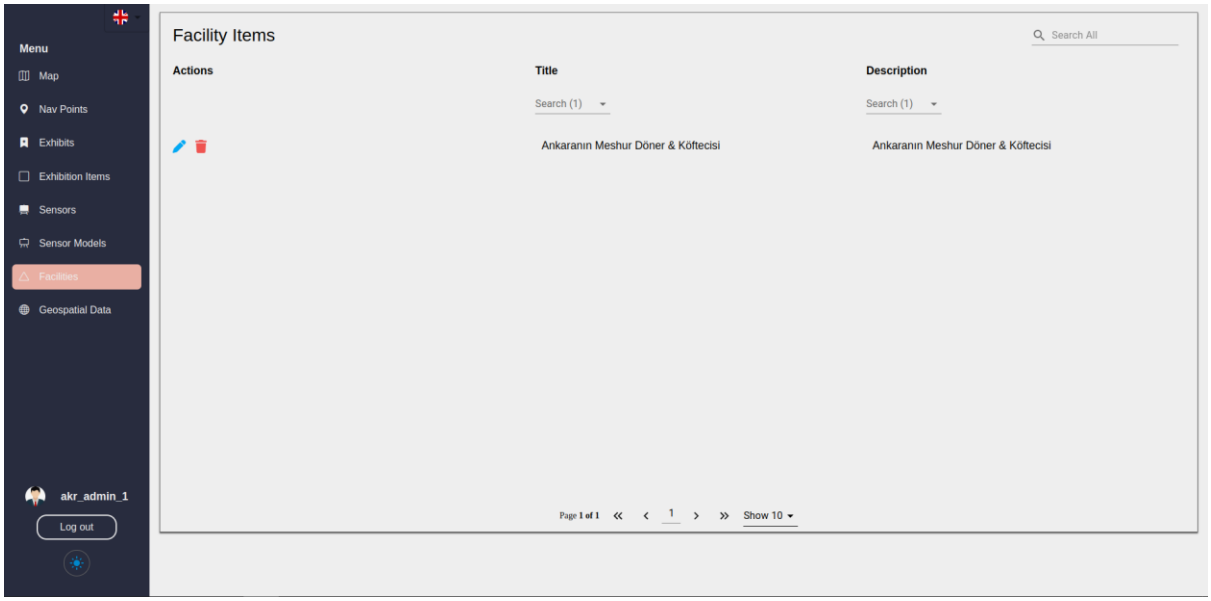
5.5.7 Editing a Sensor Model

To edit a sensor model, the user clicks on the edit button on the leftmost side of the corresponding row. When this button is clicked, a dialog box will appear, and the user can edit the properties of the sensor model.



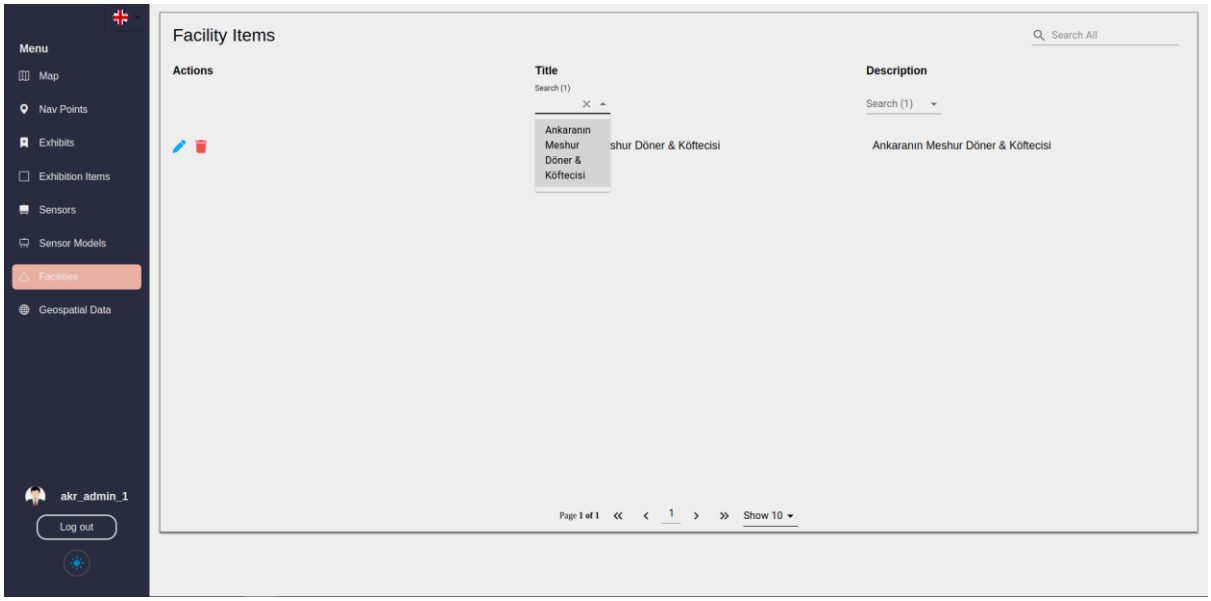
5.6 Facilities

The user can view the existing facilities, like restrooms, restaurants, shops, etc., on a table using this view. The table contains the names and descriptions of the facilities.



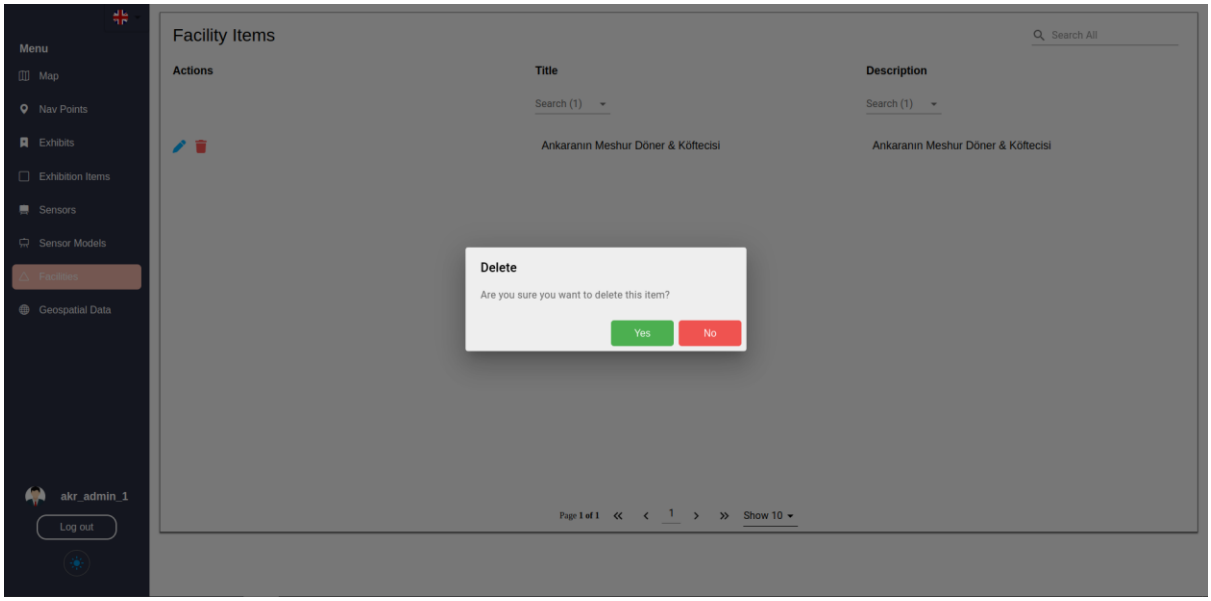
5.6.1 Searching a Facility

The user can search for facilities using the search boxes in the columns.



5.6.2 Deleting a Facility

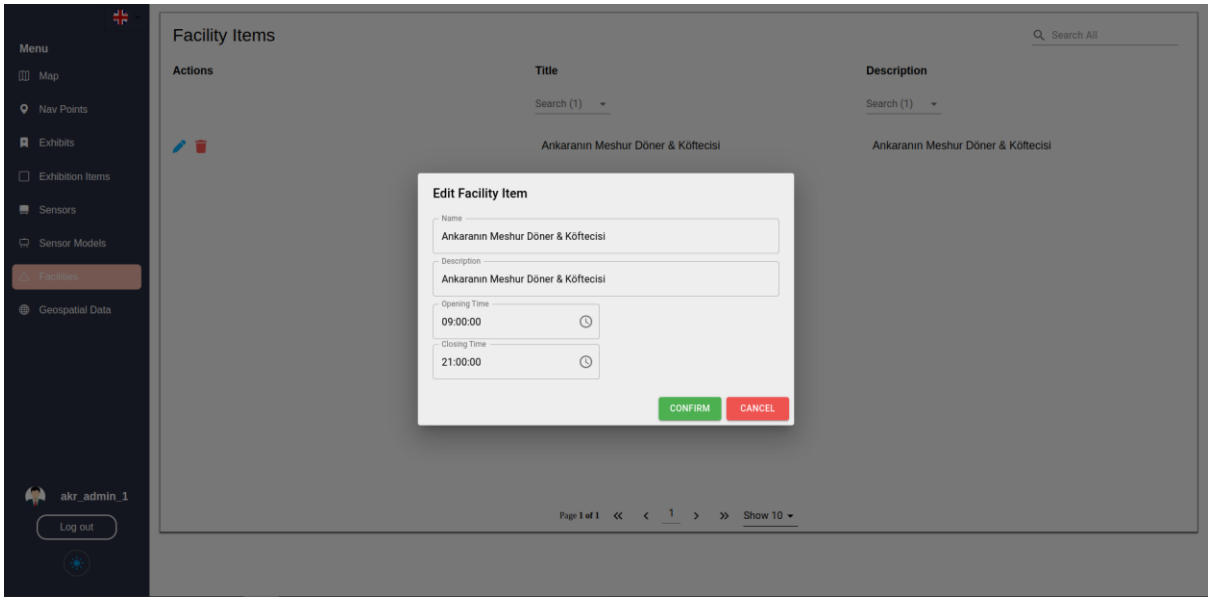
To delete a Facility, the user clicks the delete button on the leftmost side of the corresponding row. When this button is clicked, a confirmation message appears, and if the user confirms the action, the Facility is deleted:



5.6.3 Editing a Facility

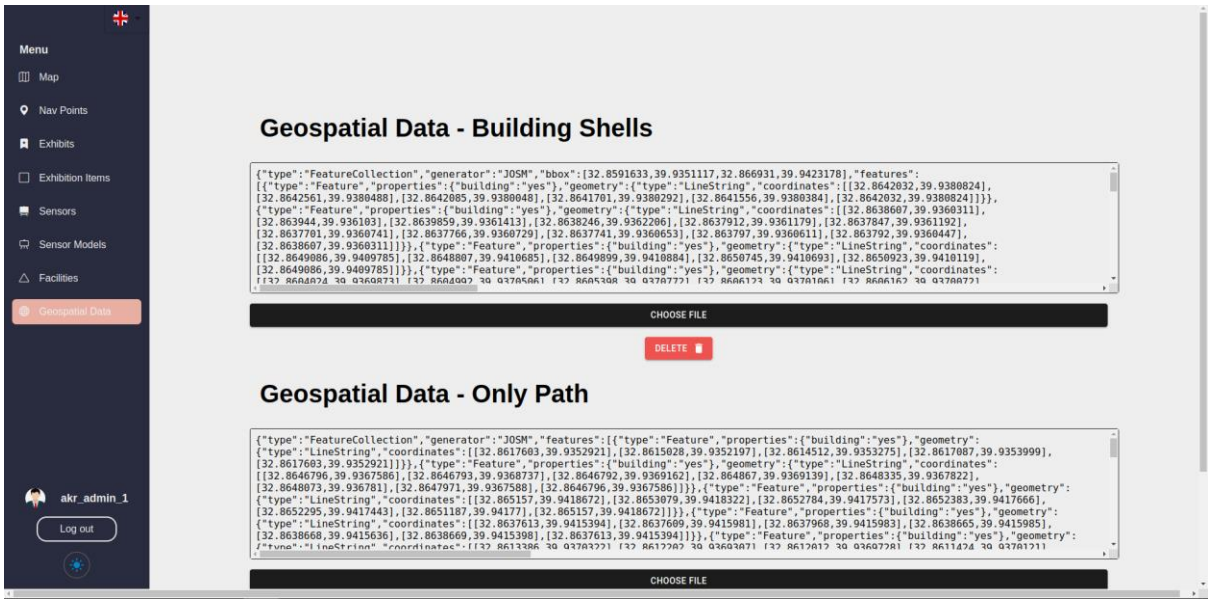
To edit a facility, the user clicks on the edit button on the leftmost side of the corresponding row.

When this button is clicked, a dialogue box appears, and the user can edit the Facility's properties.



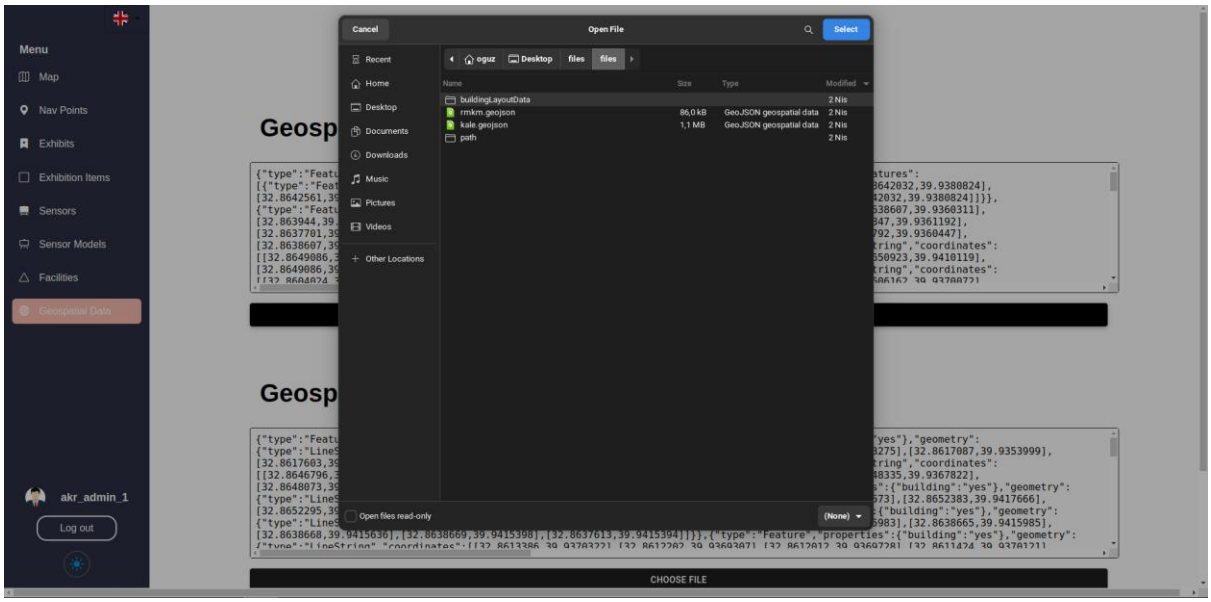
5.7 Geospatial Data

The user can upload or delete the site's geospatial data using this view.



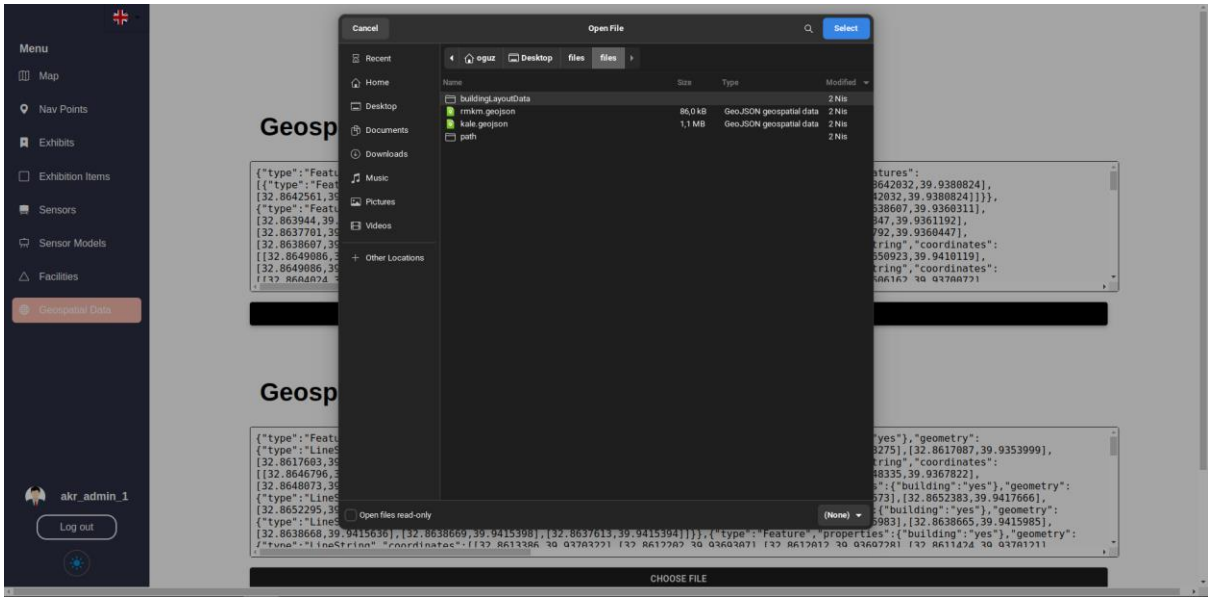
5.7.1 Geospatial Data - Building Shells

The user can upload a Geospatial Data - Building Shells file. This is the file containing the items desired to be shown on the map (like building details, special areas, etc.).



5.7.2 Geospatial Data - Only Path

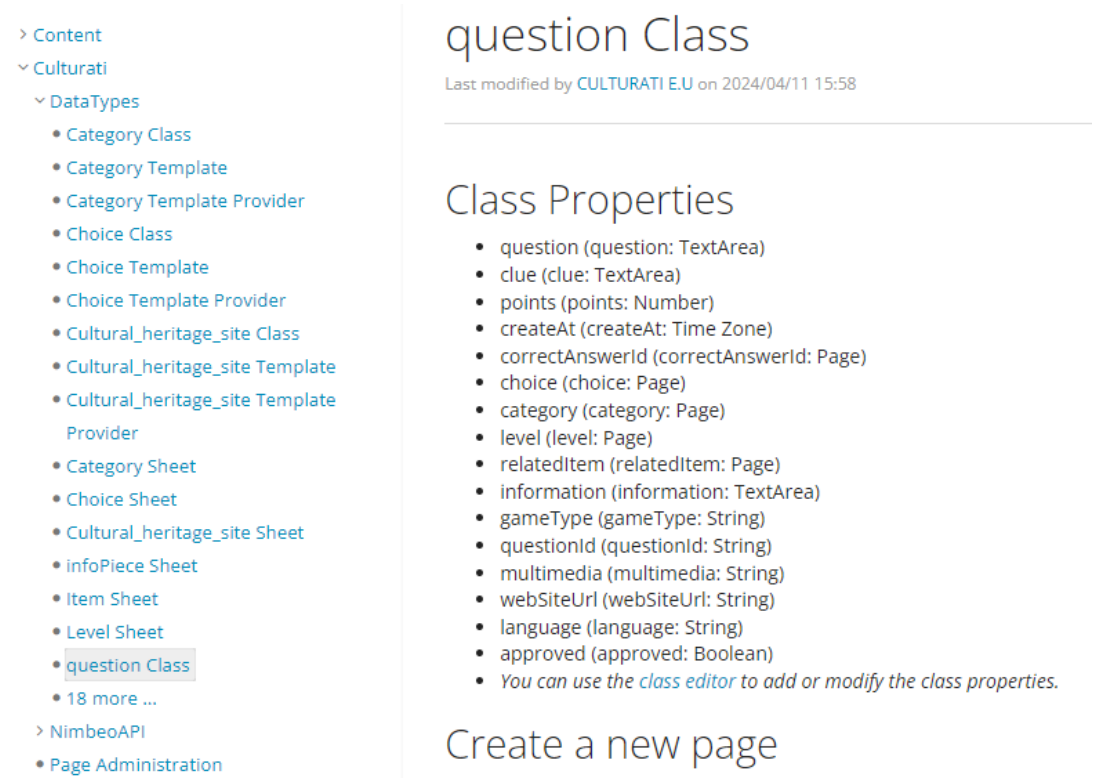
The user can upload a Geospatial Data - Path file. This is the file containing the entities to be used for the navigation. (like roads, steps, ramps, etc.). This is uploaded separately from the map's other parts for technical performance reasons.



6. Implementation Phases

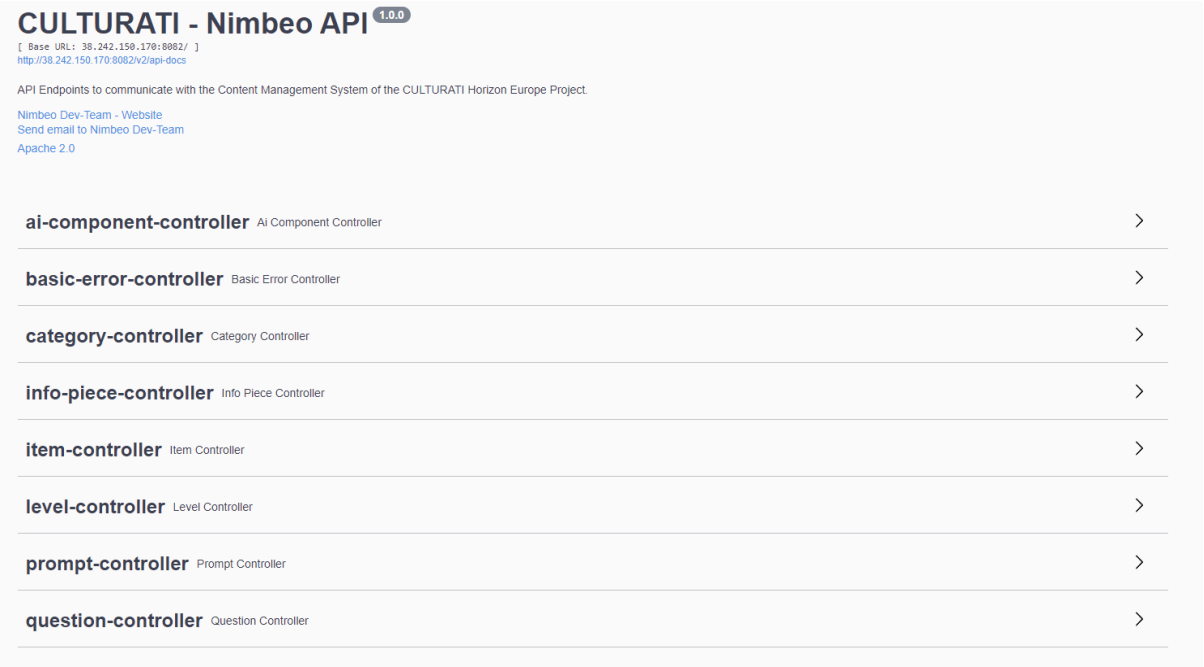
The implementation began with an in-depth understanding of the XWiki application's functionalities. This foundational step was crucial as it provided insight into the existing features and capabilities, allowing for informed customization and extension of the platform.

The design phase involved creating specific classes within the XWiki application to personalize how users would interact and create content. These classes, equipped with tailored attributes, were designed to structure content creation effectively. Utilizing HTML, JavaScript, and Velocity code, our team customized the Wiki's functionalities to meet the project's unique requirements.



This included the implementation of HQL queries to display specific values in designated parts of the Wiki, enhancing the user experience by presenting relevant information where needed.

Further customization was achieved by developing Macros, which streamlined repetitive tasks and added dynamic elements to the Wiki pages. Additionally, to extend the platform's capabilities, we developed a Java Spring Boot API application.



This API allowed content creation via programmatic access, providing flexibility beyond the custom UI we developed. The roles within the Wiki were carefully defined, including Administrators, Data Entry Operators, Content Creators, and Editors, each with distinct permissions to optimize productivity and maintain high content quality as described above.

The deployment phase was geared towards ensuring a smooth transition from development to production. Using Docker-Compose, we generated a Docker image of the personalized Wiki, facilitating a consistent and reproducible deployment process. This image was deployed on a Contabo server, providing a reliable hosting environment. To secure the platform, Nginx was configured with Let's Encrypt to enable HTTPS, ensuring secure communication and data protection. The backend of the Wiki was supported by a PostgreSQL database, chosen for its robustness and reliability in handling complex queries and large datasets.

7. Security and Data Protection

Ensuring the security and data protection of the CULTURATI Wiki was a paramount consideration throughout the implementation process. The platform leverages Nginx in conjunction with Let's Encrypt to establish HTTPS, providing encrypted communication channels and safeguarding data integrity during transmission. This encryption prevents unauthorized access and eavesdropping, ensuring that all interactions between users and the Wiki remain confidential and secure.

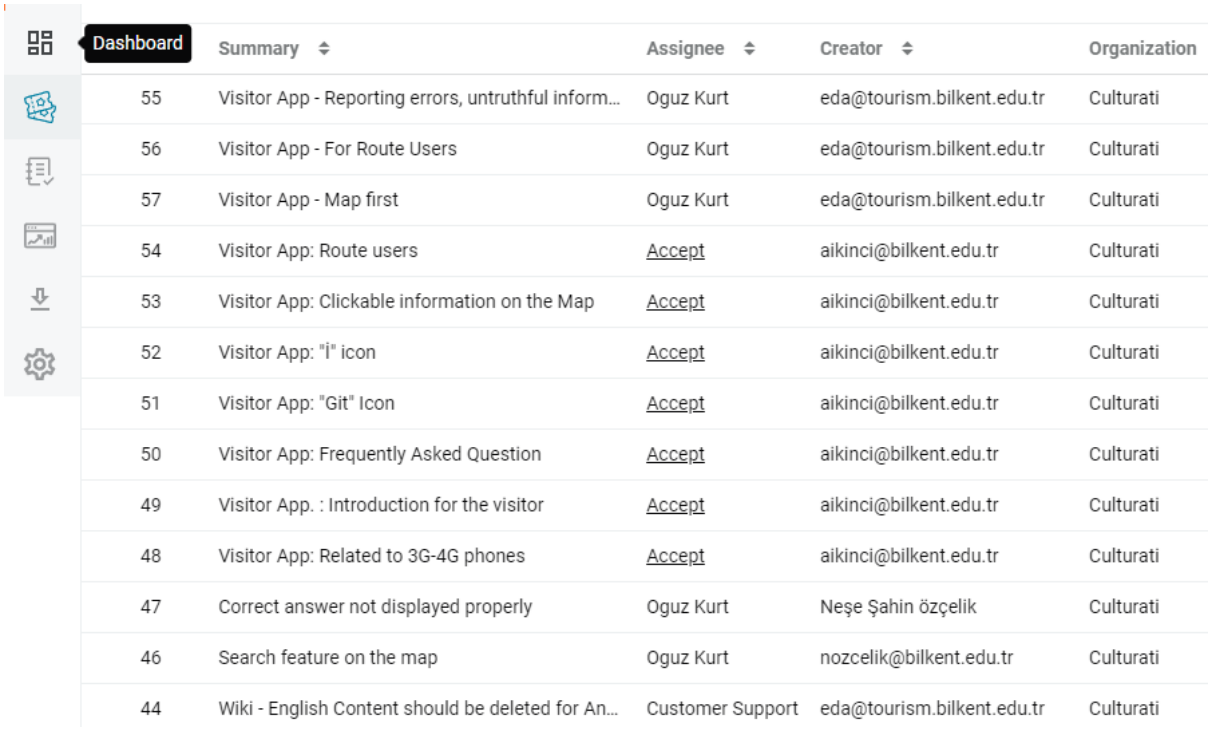
Furthermore, role-based access control was meticulously configured within the Wiki, assigning specific capabilities to Administrators, Data Entry Operators, Content Creators, and Editors. This granular control mechanism ensures that users have appropriate permissions, minimizing the risk of unauthorized data modifications.

Additionally, the PostgreSQL database, known for its robust security features, serves as the backend, incorporating advanced authentication and encryption techniques to protect stored data. Collectively, these measures create a fortified environment that prioritizes the security and protection of user data of the CULTURATI Content Management System.

8. Validation Process and Communication

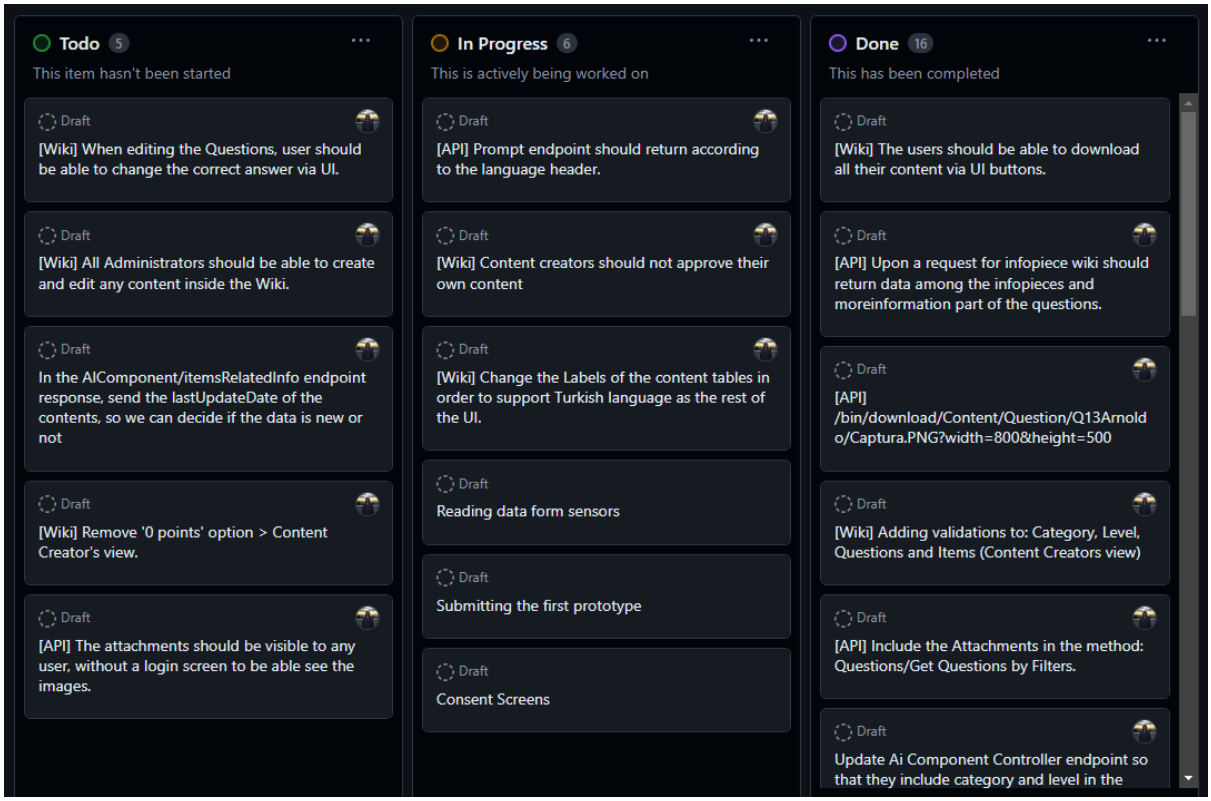
The CULTURATI Wiki places significant emphasis on thorough testing and validation to ensure the reliability and performance of new features. We employ manual testing strategies for the user interface, examining each newly implemented feature to confirm its functionality and effectiveness. This rigorous testing process includes not only verifying the correctness of features but also assessing their response times, particularly in the API. We always prioritize the optimization of the code so that the response of the API and the Wiki is given in the shortest possible time, with an average response time of no more than 3 seconds.

In addition to our internal testing efforts, we have deployed the Wiki in real-world scenarios, where it is currently being used by two pilot sites (Ankara Citadel and Istanbul Rahmi M. Koç Museum). These institutions actively input data and utilize the platform, providing invaluable feedback on its performance. When real users encounter issues, they can create support tickets using SpiceWorks, an external ticketing platform. This system allows users to report problems directly to the development team, ensuring that issues are promptly identified and addressed.



	Summary	Assignee	Creator	Organization
55	Visitor App - Reporting errors, untruthful inform...	Oguz Kurt	eda@tourism.bilkent.edu.tr	Culturati
56	Visitor App - For Route Users	Oguz Kurt	eda@tourism.bilkent.edu.tr	Culturati
57	Visitor App - Map first	Oguz Kurt	eda@tourism.bilkent.edu.tr	Culturati
54	Visitor App: Route users	Accept	aikinci@bilkent.edu.tr	Culturati
53	Visitor App: Clickable information on the Map	Accept	aikinci@bilkent.edu.tr	Culturati
52	Visitor App: "İ" icon	Accept	aikinci@bilkent.edu.tr	Culturati
51	Visitor App: "Git" Icon	Accept	aikinci@bilkent.edu.tr	Culturati
50	Visitor App: Frequently Asked Question	Accept	aikinci@bilkent.edu.tr	Culturati
49	Visitor App. : Introduction for the visitor	Accept	aikinci@bilkent.edu.tr	Culturati
48	Visitor App: Related to 3G-4G phones	Accept	aikinci@bilkent.edu.tr	Culturati
47	Correct answer not displayed properly	Oguz Kurt	Neşe Şahin özçelik	Culturati
46	Search feature on the map	Oguz Kurt	nozcelik@bilkent.edu.tr	Culturati
44	Wiki - English Content should be deleted for An...	Customer Support	eda@tourism.bilkent.edu.tr	Culturati

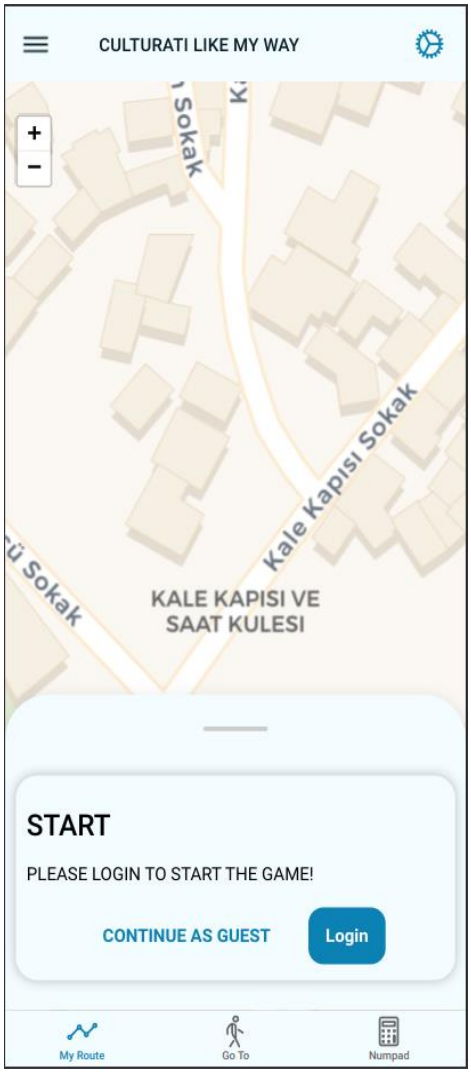
SpiceWorks offers a user-friendly interface that allows the users at the pilot sites to easily report issues and track the progress of their support requests regarding both the Wiki and the Visitor Application as can be seen in the figure above. Users can log detailed descriptions of their problems, attach relevant screenshots or files, and prioritize their tickets based on the severity of the issue. This structured approach ensures that all reported problems are documented comprehensively, facilitating efficient resolution by the development team. The integration of SpiceWorks into our support framework not only enhances our ability to respond to user needs but also fosters a collaborative environment where user feedback drives continuous improvement.



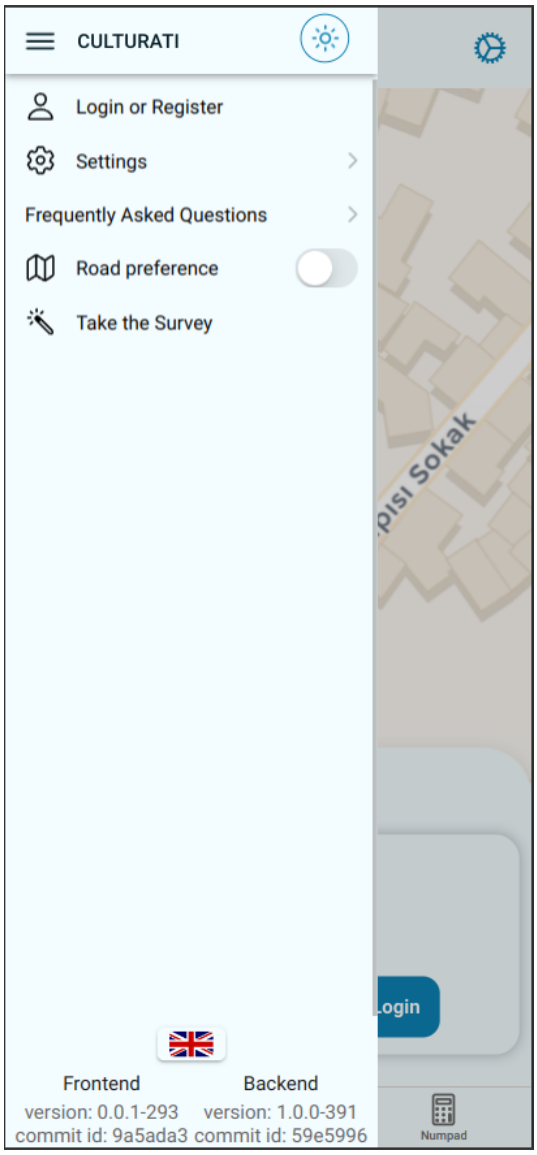
Internally, our development team utilizes a GitHub dashboard following the Kanban methodology to manage and track tasks. This dashboard includes columns for "To Do" "In Progress" and "Done" providing a clear and structured overview of the development process. This methodology enhances our workflow by allowing us to prioritize tasks, monitor progress, and ensure timely completion of each development phase, maintaining an organized and transparent task management system, and facilitating an effective communication and collaboration within the rest of the team, contributing to the successful implementation and continuous improvement of the CULTURATI Wiki and API.

9. CULTURATI Visitor Application

CULTURATI Visitor Application starts with the following screen:

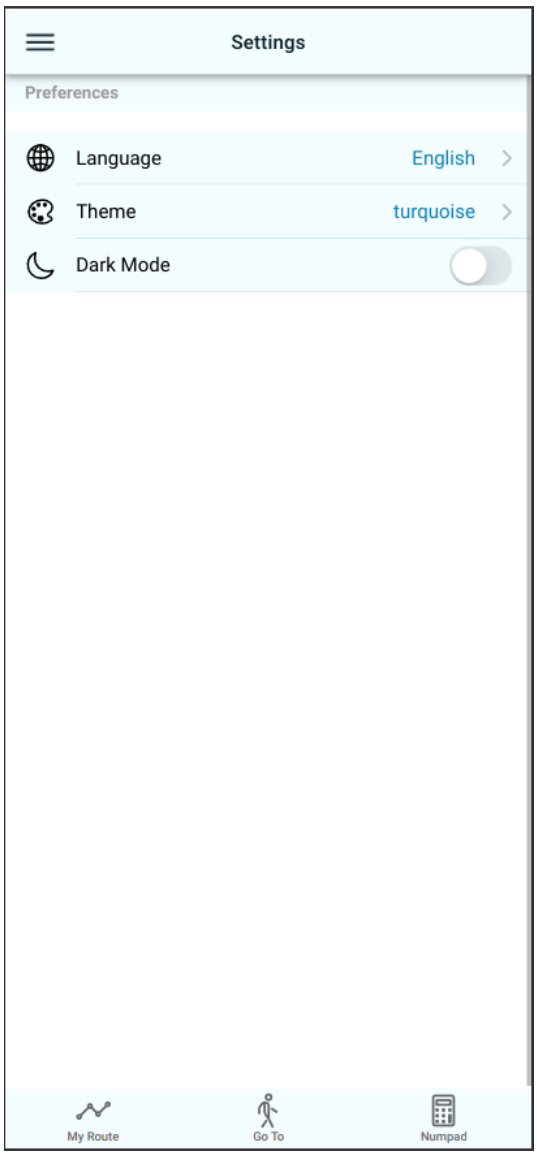


9.1 Side Menu

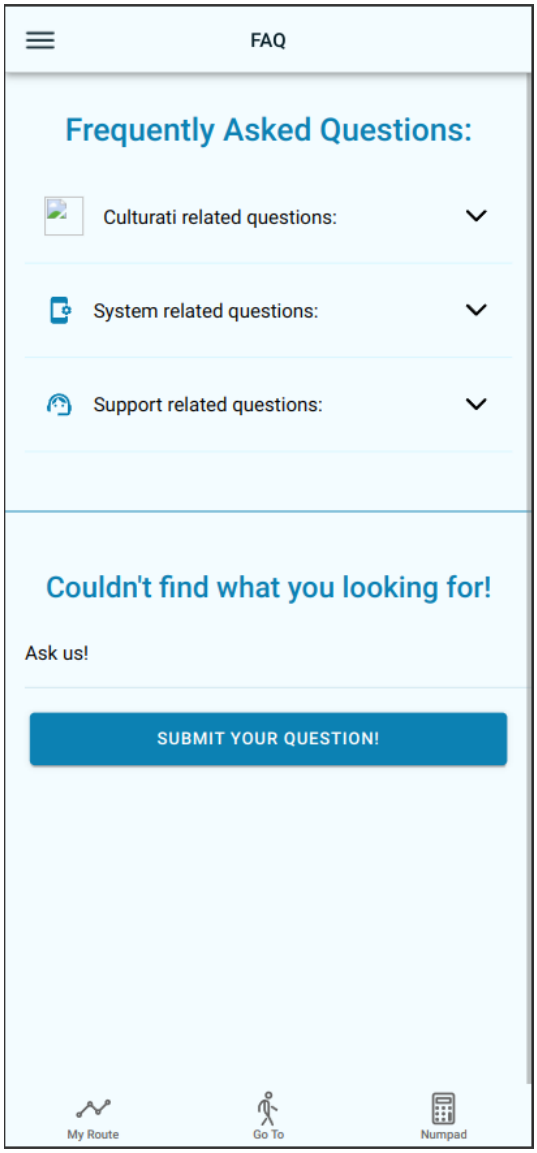


Side Menu has these buttons:

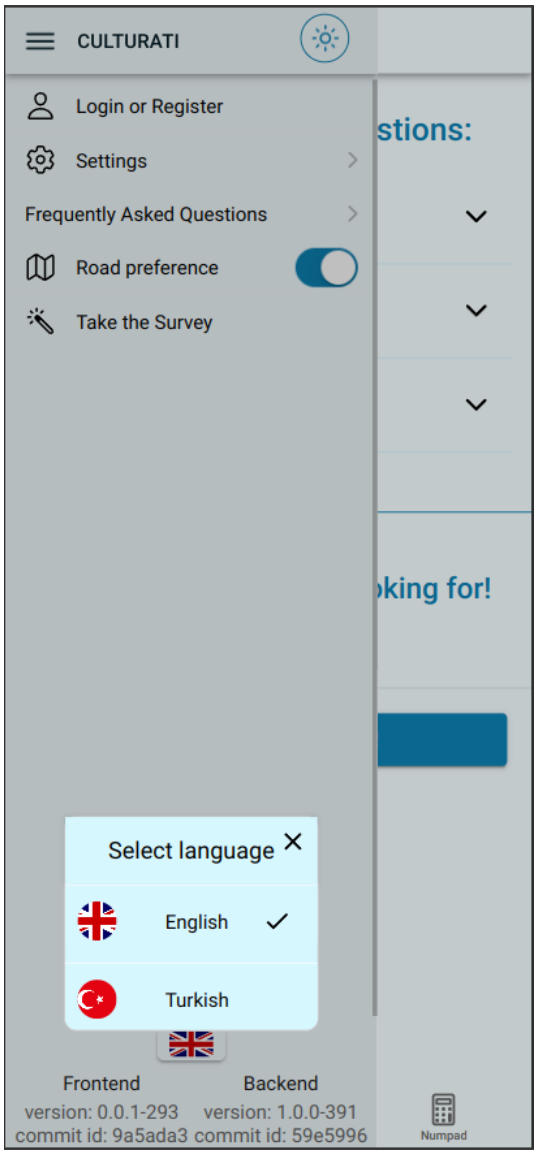
- **Login or Register:** To login with your credentials or register for a new account.
- **Settings:** You can set the language, theme or dark mode in this view.


Settings
Preferences
Language
English
Theme
turquoise
Dark Mode
My Route
Go To
Numpad

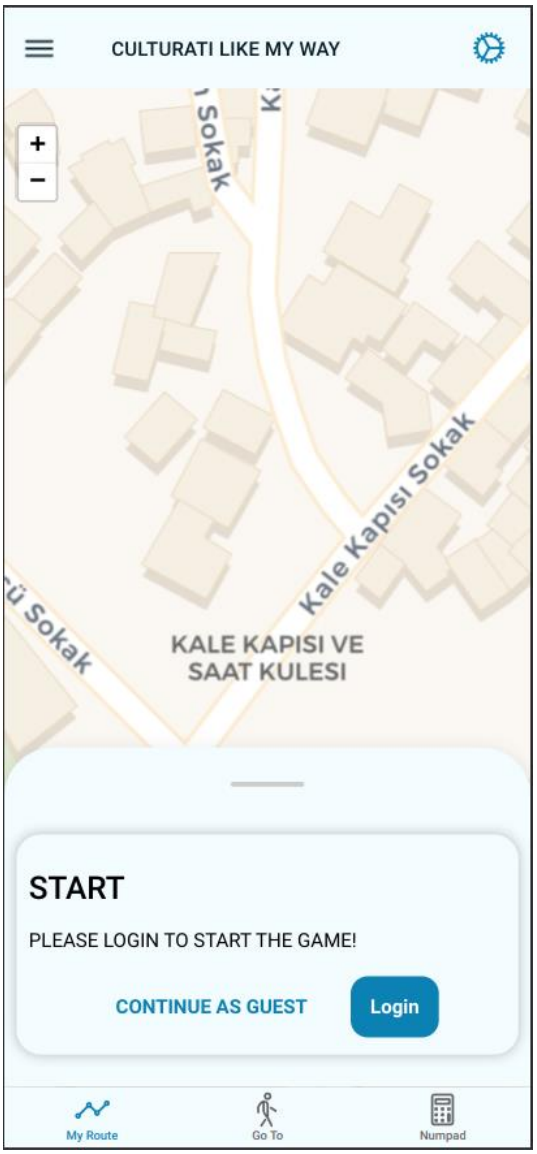
- **FAQ** (Frequently Asked Questions)



- Road Preference: To set if the user need special road preferences
- Link to CULTURATI Survey.
- Change display language



9.2 Map (My Route)

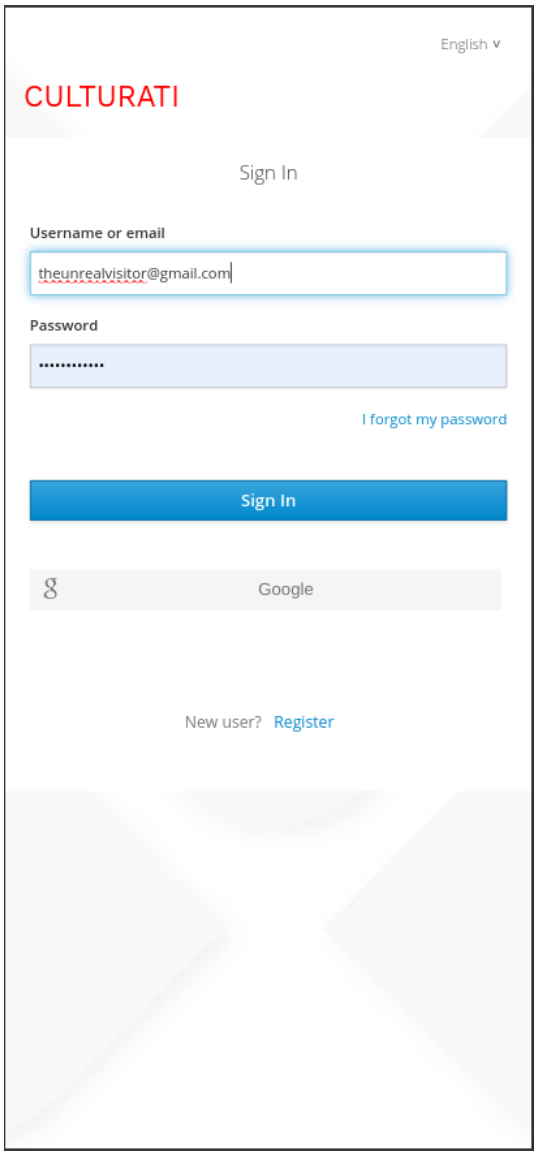


The primary view of the visitor application is the "My Route" view. This view contains a bottom drawer view, in which the questions and information pieces will be displayed and a map, which will be used to navigate the user.

9.2.1 Login / Register / Guest Mode

- **Login**

The user can use the following credentials to log in to the system.

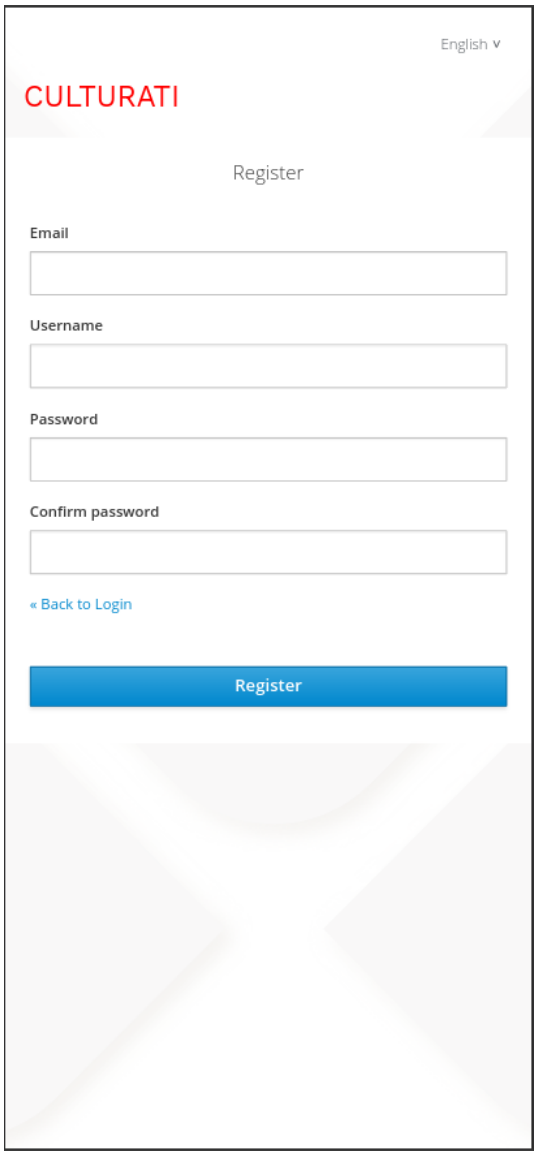


- **Google Login**

The user can choose a Google account to log in to the system.

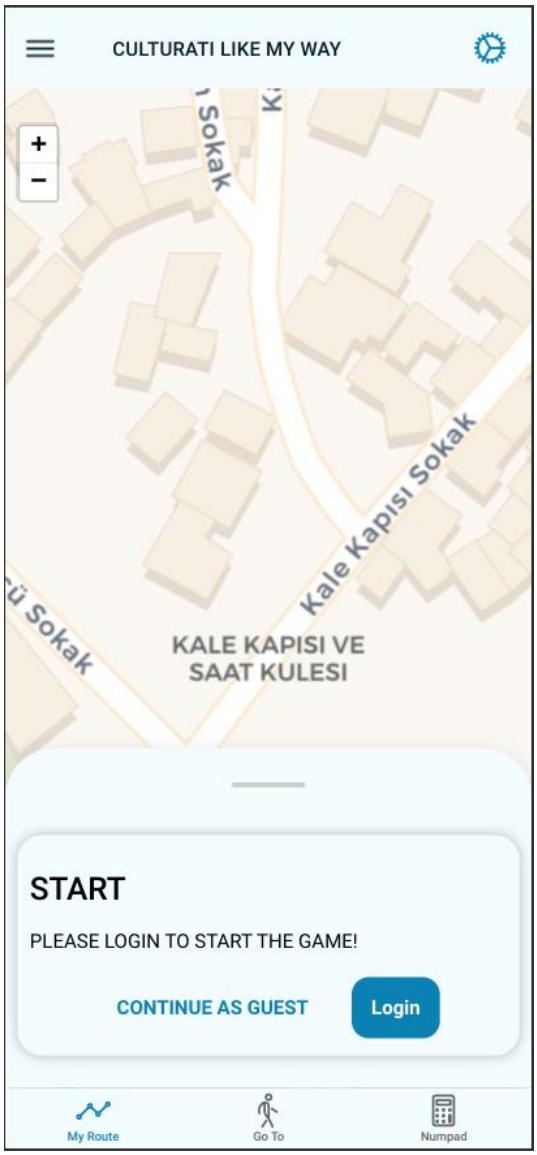
- **Register**

The user can create a CULTURATI account to login to the system.

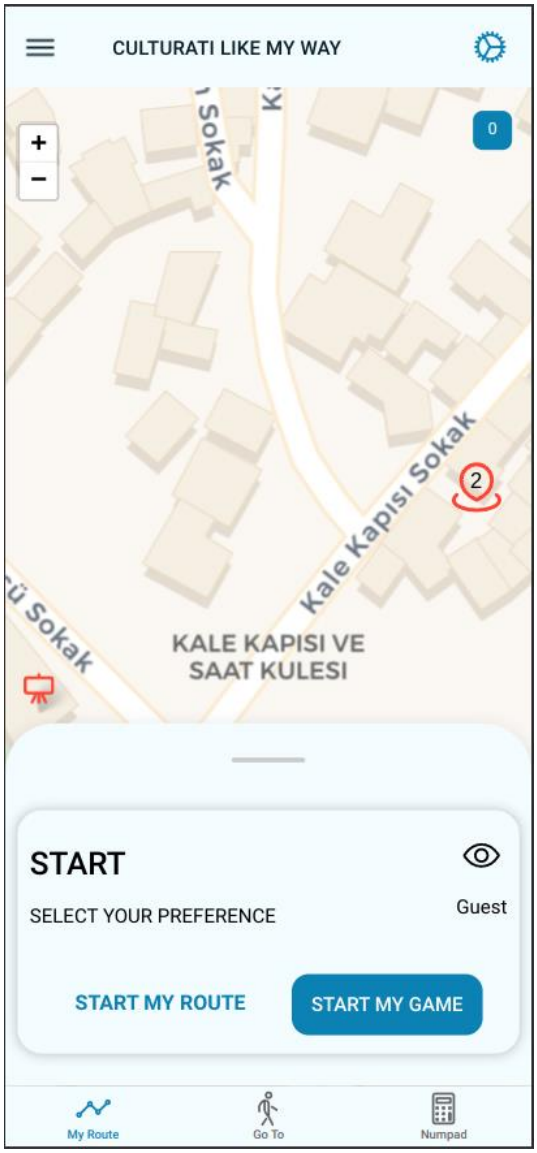


- **Continue as a guest**

The user can continue to use the system as a guest. By doing this, when the user's current experience is finished, the data related to this experience cannot be accessed later.



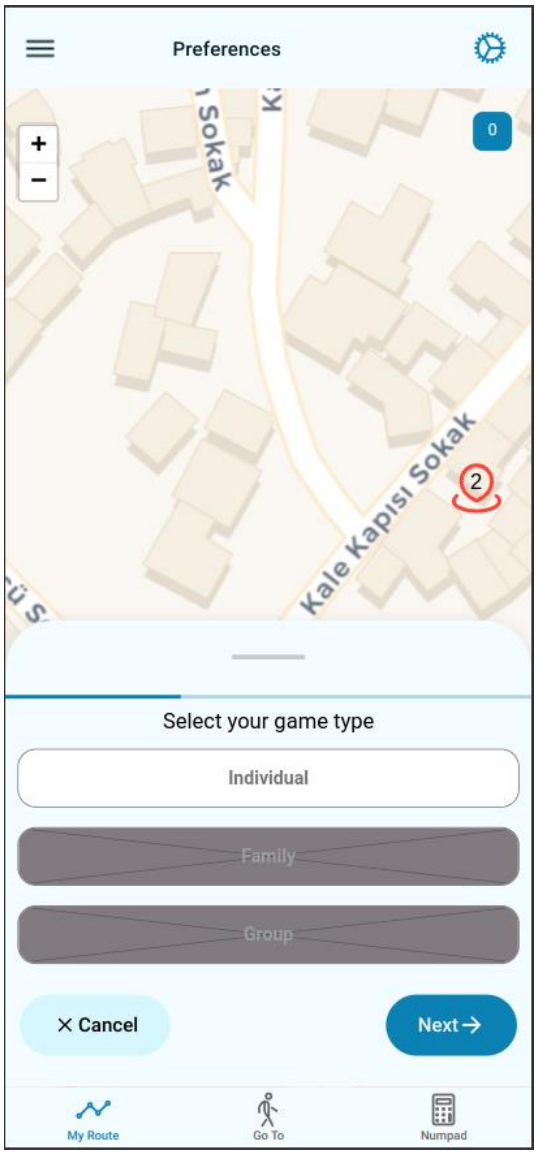
When the user selects to continue as a guest, the system will display it is in the guest mode:



9.2.2 Starting A Game

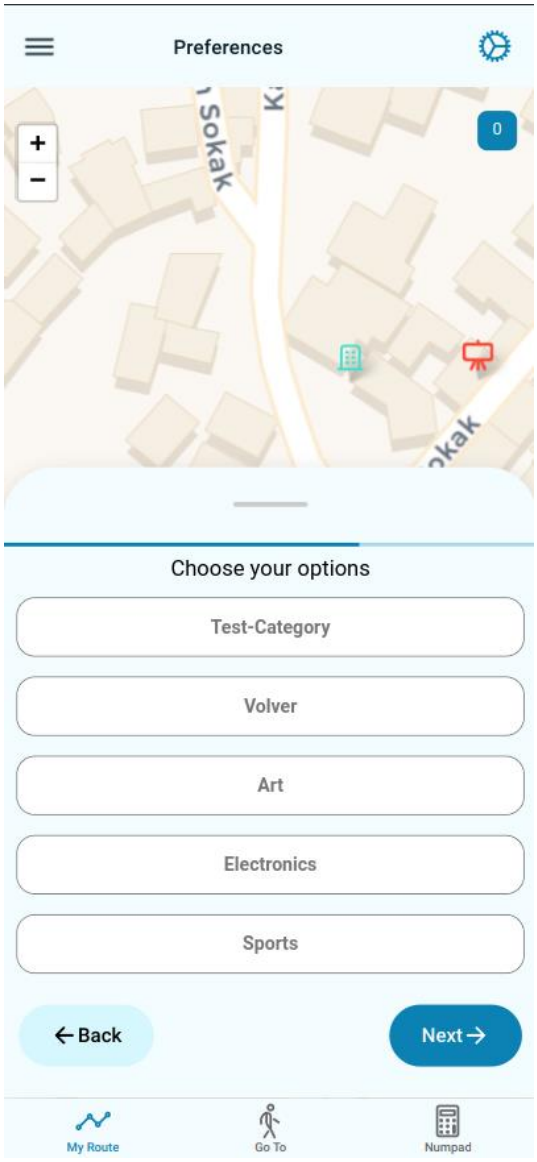
- **Selecting the game type**

The user will first select the game type. This can only be individual at the moment.



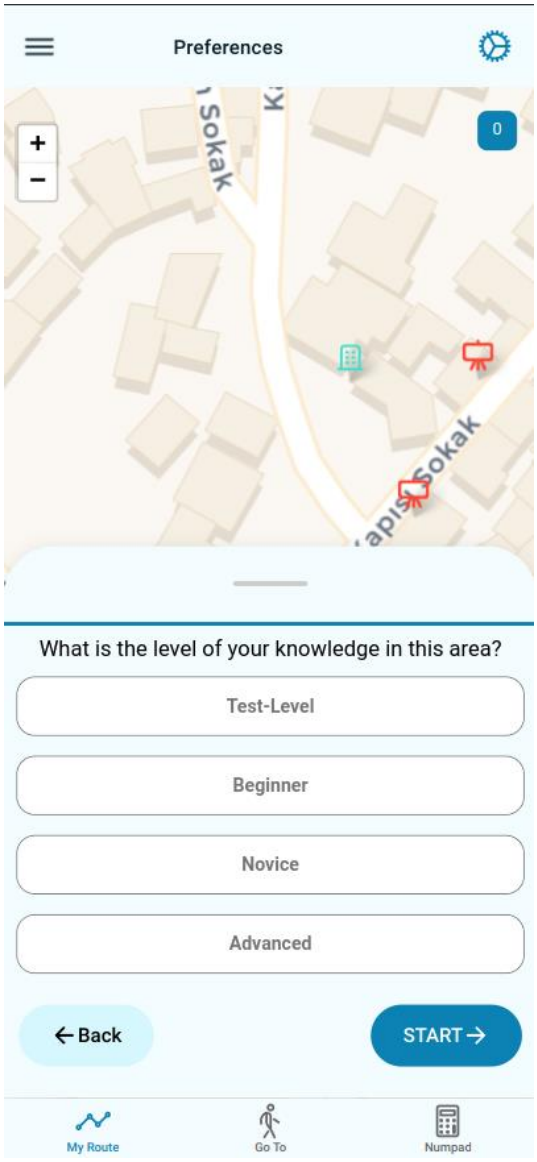
- **Selecting the category**

The user then will select the category.



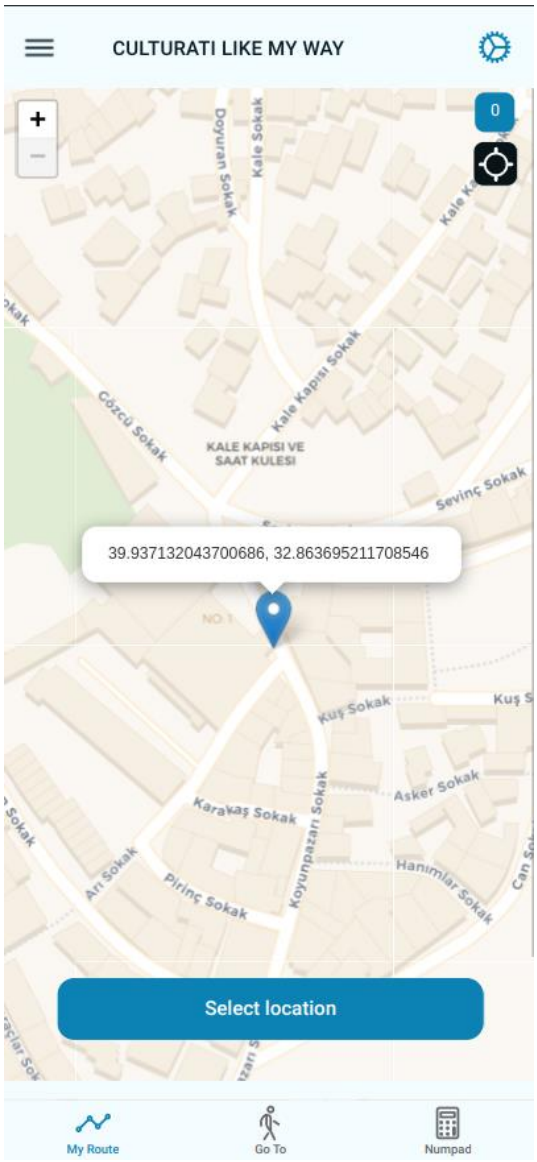
- **Selecting the knowledge level**

The user will then select the knowledge level about this category.



- **Selecting the location**

The user then will select the current location or can use the phone's GPS receiver by tapping the GPS button at the top right corner.

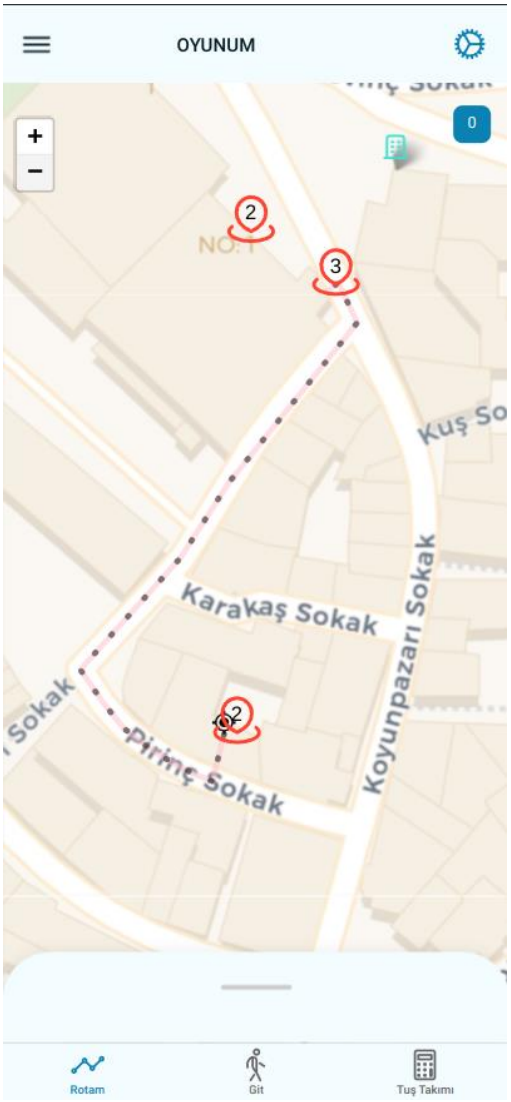


- **Displaying the question**

The user will then be displayed the first question. The user can select one of the choices and continue to the next question.

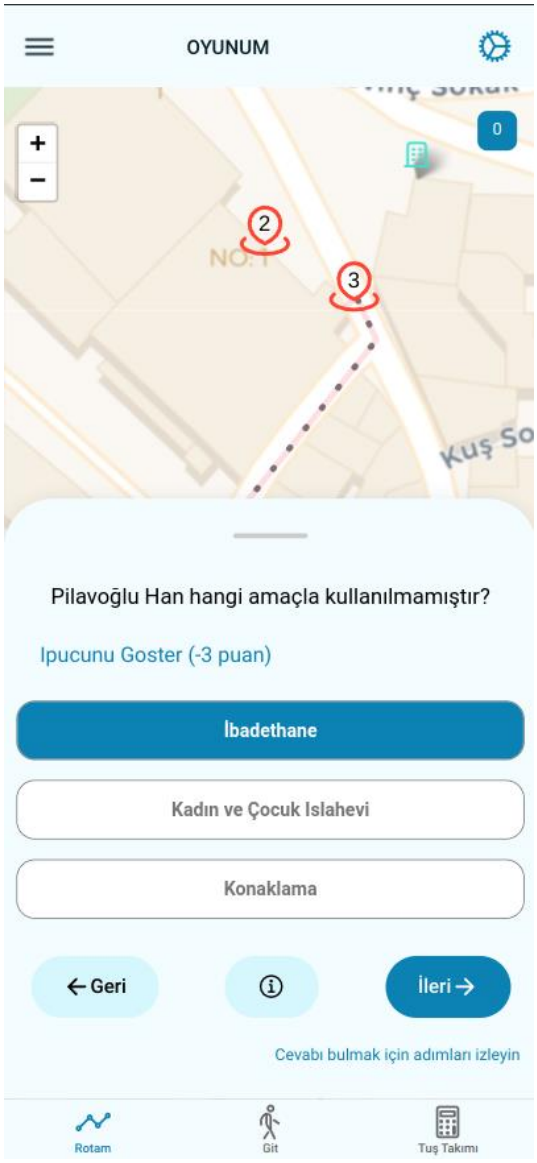
- **Navigating to the related exhibition item**

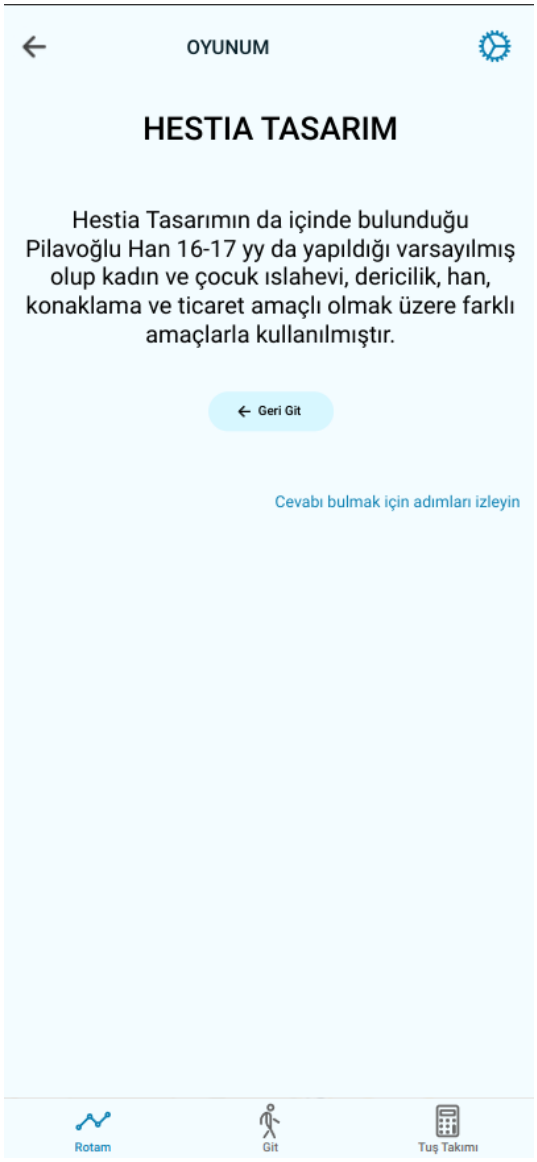
After the question is displayed, the user can close the bottom drawer (by dragging the top of the drawer downwards) and track the route calculated to the related item:



- **Displaying more information about the question**

After the question is answered, the user can tap the More Information button at the bottom and display the information about this question.




OYUNUM
HESTIA TASARIM
Hestia Tasarımın da içinde bulunduğu Pilavoğlu Han 16-17 yy da yapıldığı varsayılmış olup kadın ve çocuk ıslahevi, dericilik, han, konaklama ve ticaret amaçlı olmak üzere farklı amaçlarla kullanılmıştır.
Geri Git
Cevabı bulmak için adımları izleyin
Rotam
Git
Tuş Takımı

- **Ending a game**

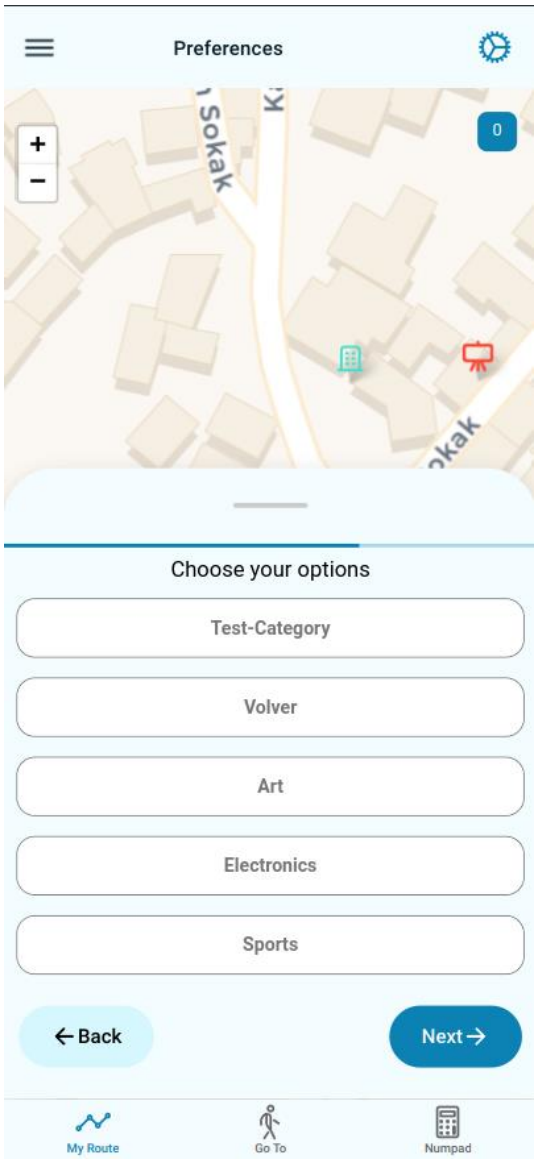
The user can end a game by clicking the settings button at the top right and then the "End Game" button in the opened dialog box.


CULTURATI BENİM YOLUM GİBİ
OYUNU BAŞARIYLA TAMAMLADINIZ.
Tebrikler!
Skor
Geçen süre
Doğru Cevap
Anasayfaya Dön
Ankete Katıl
ROTAMI BAŞLAT
OYUNUMU BAŞLAT
Rotam
Git
Tuş Takımı

9.2.3 Starting A Route

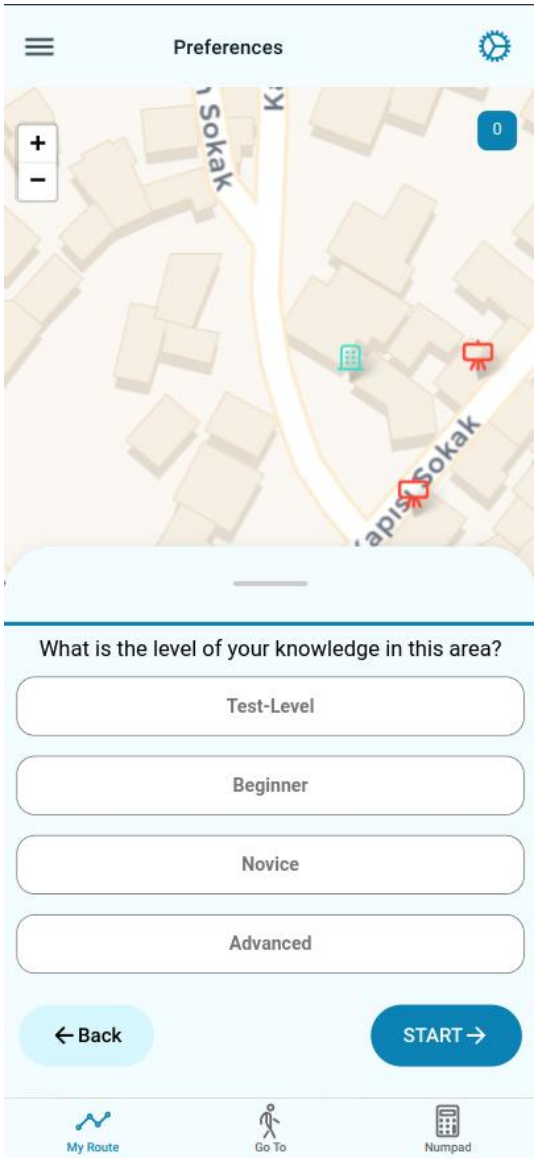
- **Selecting the category**

The user will select the category.



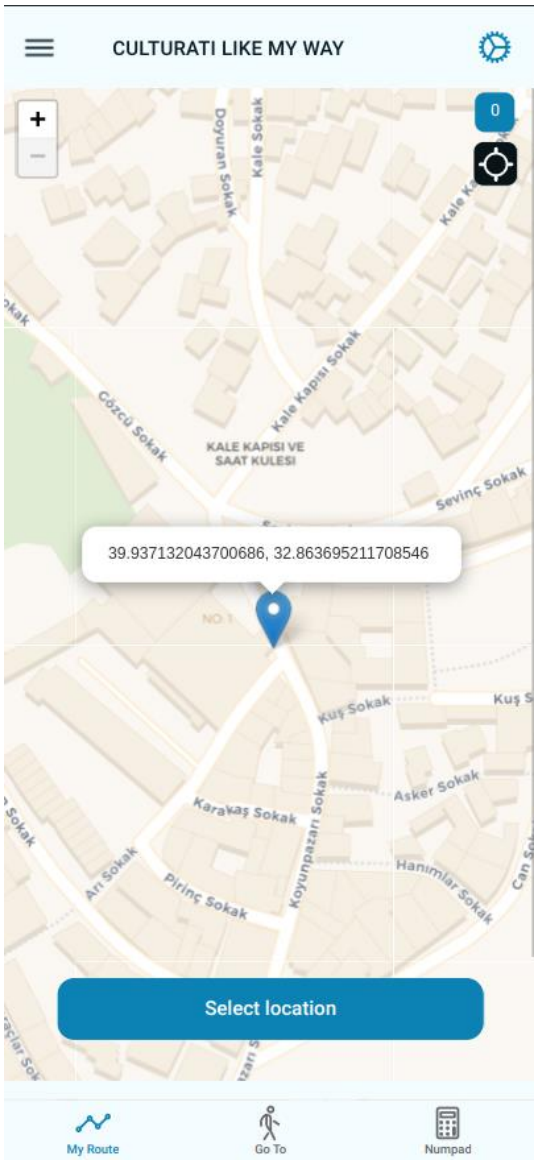
- **Selecting the knowledge level**

The user will then select the knowledge level for this category.



- **Selecting the location**

The user will then select the current location or use the phone's GPS receiver by tapping the GPS button at the top right corner.



- **Displaying the Content**

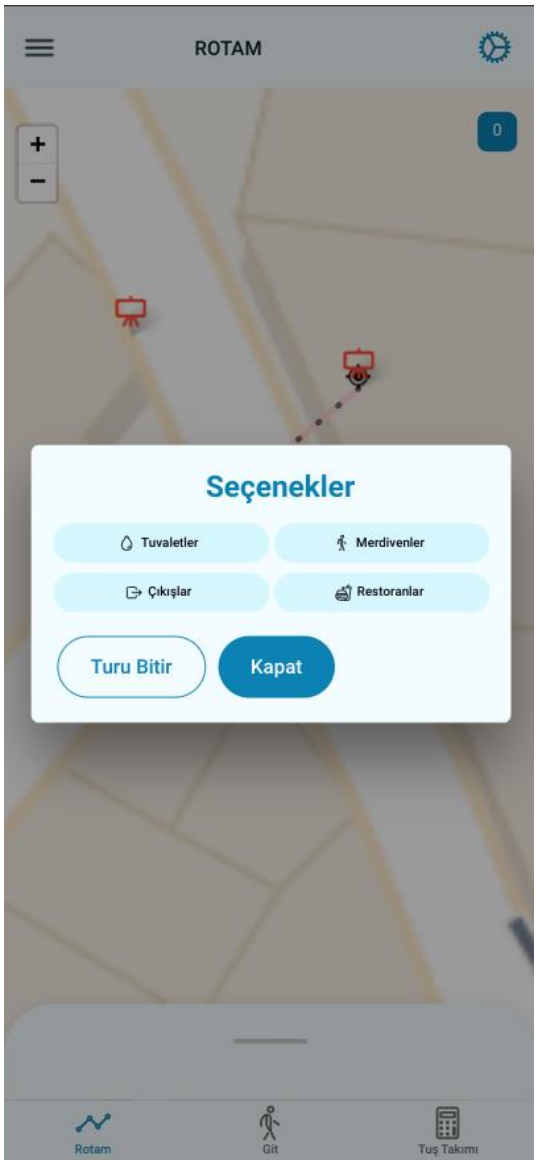
The user then will be displayed the first Content.

- **Navigating to the related exhibition item**

After the question is displayed, the user can close the bottom drawer (by dragging the top of the drawer downwards) and track the route calculated to the related item:

- **Ending a route**

The user can end a route by clicking the settings button at the top right and then the "End route" button in the opened dialog.



10. Environments and Tests

There are three distinct environments where all applications run in an integrated manner: development, staging, and production environments.

10.1 Development Environment

This environment hosts the most up-to-date versions of the applications. It is primarily used for development phase tests, apart from those conducted in the local environments of individual

developers. The development environment allows for continuous integration and testing, ensuring that any new code or features are thoroughly vetted before moving to the next stage.

10.2 Staging Environment

The staging environment serves as a mirror of the production environment. It is used to test the applications in a setting that closely resembles the live environment. This stage is critical for identifying any potential issues that could arise in production. Tests conducted here include performance testing and end-to-end testing. The goal is to ensure that the application behaves as expected under conditions like real-world usage.

10.3 Production Environment

This is the live environment where the application is accessible to end-users. It is the final stage of deployment where the applications are fully functional and operational. Any updates or changes that pass through the development and staging environments are deployed here. The production environment is maintained with high availability and reliability standards, ensuring minimal downtime and optimal performance for users.

11. Testing Efforts

Testing is a crucial component of the software development lifecycle, ensuring that each application functions correctly, meets specified requirements, and provides a smooth user experience. Different types of testing are performed at various stages of development to catch and rectify issues early, thus reducing the risk of defects reaching the production environment.

11.1 Unit Testing

Unit testing involves testing individual components or units of code to verify that each part functions as intended. These tests are usually automated and are written and executed by developers during the development phase. By isolating each unit, developers can quickly identify and fix bugs, ensuring that the smallest parts of the application are working correctly.

11.2 Integration Testing

Once individual units are verified, integration testing is performed to ensure that different modules or services within the application work together. This type of testing helps identify issues that may arise when components interact, such as data flow problems or interface mismatches. Integration

tests are typically conducted in the development environment and help ensure smooth interactions between various parts of the application.

Currently, there are over one hundred automated unit and integration tests, and this number is expected to grow as development continues.

11.3 Functional Testing

Functional testing focuses on verifying that the application operates according to specified requirements. Testers perform this type of testing by simulating user actions and validating the output against expected results. Functional tests are conducted in both the development and staging environments to ensure that all features work as intended before deployment to production.

11.4 Performance Testing

Performance testing assesses how well the application performs under various conditions, including peak loads and stress scenarios. This testing is crucial for understanding the application's behavior in terms of responsiveness, stability, and scalability. Performance tests are primarily conducted in the staging environment to mimic production conditions and identify potential bottlenecks or performance issues.

12. User Acceptance Testing (UAT)

User Acceptance Testing (UAT) is the final phase of testing before the application moves to production. During UAT, real users test the application to ensure it meets their needs and expectations. This testing is conducted in the staging environment and focuses on validating the user experience, functionality, and overall satisfaction. Successful UAT signifies that the application is ready for deployment to the production environment.

Conclusion

The User Guidelines Specification Report is an essential document for all users of the CULTURATI system, ensuring they can navigate and utilize the platform's features effectively. By providing detailed instructions and best practices, the report facilitates a seamless and productive user experience, enhancing overall interaction with the system and supporting the continued growth and evolution of the CULTURATI project.

The CULTURATI ecosystem offers administrators, content creators, and visitors a comprehensive and dynamic experience. The **Content Management System (CMS)** enhances user experiences through role-specific functionalities. Administrators create and manage categories, levels, and prompts to personalize visitor interactions, while Data Entry Operators ensure data accuracy and consistency by setting up sensor locations, navigation points, and capacities. Content Creators produce engaging questions and multimedia content, enriching the visitor experience, and Editors review and refine content to maintain high-quality standards. Meanwhile, the **Core Main Application** empowers administrators to efficiently manage exhibition items, exhibits, sensors, and facilities through intuitive listing and editing functionalities. Through the **CULTURATI Visitor Application**, users embark on a gamified journey, selecting their interests and knowledge levels to explore exhibits interactively and engagingly. With personalized questions, navigation assistance, and rewards for correct answers, users enjoy a tailored experience that enhances their understanding and enjoyment of the site. Together, these applications create a symbiotic relationship, ensuring personalized site exploration and management within the CULTURATI ecosystem.