Use Cases

for

CyclingSG

Version 1.1 approved

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Team A

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Revision History

Name	Date	Reason For Changes	Version
Clarissa	17th Sept 2020	Revision for change in specification dated 11th Sept 2020	v1.1

Use Case ID:	1		
Use Case Name:	Plan Route		
Created By:	Bryan Ng	Last Updated By:	Clarissa
Date Created:	03/09/20	Date Last Updated:	17/9/20

Actor:	User, Google Maps API, HTML5 Geolocation API
Description:	Allow users to plan a custom route according to the user's specified starting and ending point. Any point of interest they might want to go for during their trip are optional and can be added. Point of interest along the route will be recommended to users according to their specified category.
Preconditions:	1. User has navigated to the 'Plan Route' page.
Postconditions:	1. A route consisting of user's defined start and end point along with every point of interests (if any) must be generated and displayed in map view.
Flow of Events:	1. User selects a start and end point for their route. 2. System generates a route in the map view accordingly. 3. User selects to add a point of interest. 4. System display all point of interest filtered by user selected category. 5. User selects a point of interest and adds it to their route. 6. System generates a new path from the start to the end point through the selected point of interest.
Alternative Flows:	1.AC.1. At step 3, if user did not select to add a point of interest, this use case ends there. 1.AC.2. At the end of step 6, if user choose to add an additional point of interest, the use case will continue from step 3.
Exceptions:	1.EX.1. At step 4, if the system could not find any point of interest along the user-defined route, it would prompt the user and the use case ends there. 1.EX.2. If the use case execution fails for some unanticipated reason, the user will be prompted and navigated to the home page.
Includes:	Display Map View

Use Case ID:	2		
Use Case Name:	Select Preset Route		
Created By:	Bryan Ng	Last Updated By:	-
Date Created:	03/09/20	Date Last Updated:	-

Actor:	User, HTML5 Geolocation API
Description:	Allow users to choose from a list of pre-defined route based on user's GPS determined/ user entered location.
Preconditions:	1. User has navigated to the 'Select Preset Route' page.
Postconditions:	1. Route consisting of pre-defined start and end point along with every point of interests (if any) must be displayed in map view.

Flow of Events:	1. System tries to get user's geolocation through the HTML5 Geolocation API. 2. Based on user's geolocation, the system will display a list of preset routes that are around the vicinity. 3. User selects a preset route. 4. System displays the route from the start to the end point through the selected point of interest based on the selected preset route.
Alternative Flows:	2.AC.1. At step 3, users can choose to manually input their location or a location of their liking to view the available preset route. The use case will continue from step 4.
Exceptions:	2.EX.1. At step 1, if the system fails to obtain user's geolocation, the user will have to manually input their location and continue from step 3. 2.EX.2. If the use case execution fails for some unanticipated reason, the user will be prompted and navigated to the home page.
Includes:	Display Map View

Use Case ID:	3		
Use Case Name:	Display Map View		
Created By:	Bryan Ng	Last Updated By:	-
Date Created:	03/09/20	Date Last Updated:	-

Actor:	Google Maps API, openrouteservice API
Description:	Present an interactive map showing user-defined route and allows filtering of point of interests through a series of selections.
Preconditions:	1. User has navigated to the map view after selecting a preset route, or from the 'Plan Route' page.
Postconditions:	1. A route from the start to the end point linking every point of interest (if any) must be displayed in the map view.
Flow of Events:	1. System generates a map using Google Maps API. 2. System checks for user-defined route. 3. System checks for users filter option for point of interest. 4. Using users filter option, system finds every point of interests along the route and displays it. 5. System generates a path from the start to the end point linking every point of interest (if any) using the openrouteservice API.
Alternative Flows:	3.AC.1. At step 2, if no user-defined route is found, the use case ends there. 3.AC.2. At step 3, if no filter option selected, system will use the default filter option and the use case continues.
Exceptions:	3.EX.1. If the use case execution fails at step 5, the user will be prompted and the use case ends there. Generated map will be displayed without the user-defined route. 3.EX.2. If the use case execution fails at step 1, or for some unanticipated reason, the user will be prompted. No map will be displayed.
Includes:	-

Use Case ID:	4		
Use Case Name:	Run Tutorial		
Created By:	Clarissa	Last Updated By:	-
Date Created:	17/9/20	Date Last Updated:	-

Actor:	User
Description:	Run the user through a step-by-step tutorial which teaches them how to use the web application.
Preconditions:	1. It is the first time a user launches the web application from that device or, the user selected the option to run the tutorial.
Postconditions:	-
Flow of Events:	1. System prompts user through a series of actions. 2. User follows the prompts through a series of actions.
Alternative Flows:	4.AC.1. At step 2, users can choose to skip the tutorial. The use case ends there.
Exceptions:	4.EX.1. If the use case execution fails for some unanticipated reason, the user will be prompted and navigated to the home page.
Includes:	-