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USE CASES

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Title: User Login
Description: The User shall input their username and password to login to the system. The User shall also be able to recover their password using the “Forgot password?” button.
Desired Outcome: The User shall be logged into their account.
User Goals: The User shall be logged into their account so that they may access login-restricted areas. (ex. Bookmarks, rating and commenting on routes).
Primary Actor: User of the application
Requirements:
Details:

Priority Level: Must have
Status: Unimplemented

Preconditions:

1. The User is registered.
2. The User has their own username and password.

Postconditions:

1. The System shall log the user in.

Trigger: The User has pressed the login button or has selected an option that requires the User to be logged in.
Workflow:

1. User is at application’s home screen.
2. User shall select “Login here!” option.
3. System shall display the login screen.
4. User shall input their login information and click on “Login”.
5. System shall send the information to the database to check whether the login information is valid.
6. If the login was successful, the System shall:
    a. Lead the User into their account.
    b. Display the user account screen.
7. If the login was not successful, the System shall:
    a. Show “Wrong Password! Please try again.”
    b. Go back to the login screen.

Title: Update User Information
Description: The User shall be able to update user information. The System shall save the update information into the database.
Desired Outcome: The System shall save the user update information.
User Goals: The User shall update his/her information.
Primary Actor: User of application
Requirements:
Details:
Priority Level: Could have
Status: Unimplemented
Preconditions:
1. User has been logged in.

Postconditions:
1. The system shall save the update information.

Trigger: User shall select “Update Info” from the profile menu
Workflow
1. User is at application’s profile screen.
2. User shall select “Update Info” from the menu.
3. System shall direct user to the screen update the information.
4. User shall make change on the information.
5. User shall click “Save” button.
6. System shall verify all updated information.
7. If System has any invalid information:
    a. System shall spawn text-box prompting “There have invalid information”, box shall close after two second.
    b. System shall highlight the invalid information.
    c. User shall repeat step 4.
8. If System has no invalid information:
    a. System shall save updated information into database.
    b. System shall spawn text-box prompting “Account successfully updated”, box shall close after two second.

Title: Upload User Picture
Description: The User shall be able to upload user picture. The System shall save the user picture into the database.
Desired Outcome: The System shall save the user picture
User Goals: The User shall see his/her picture on his/her account.
Primary Actor: User of application
Requirements:
Details:
Priority Level: Could have
Status: Unimplemented
Preconditions:
1. User has been logged in.

Postconditions:
1. The system shall save the user picture.

Trigger: User shall select “Upload Picture” from profile menu
Workflow
1. User is at application’s profile screen.
2. User shall select “Upload Picture” from the menu.
3. System shall spawn icon option for “Picture” and “Camera”
4. If User select “Picture”:
    a. System shall display user’s photos.
    b. User shall select one picture.
    c. User shall click “Select” button.
    d. System shall save the selected picture into database.
    e. System shall spawn text-box prompting “Picture successfully uploaded”, box shall close after two second.
5. If User select “Camera”:
    a. System shall direct user to device’s camera feature.
    b. User shall take a picture.
    c. System shall save the new picture into database.
    d. System shall spawn text-box prompting “Picture successfully uploaded”, box shall close after two second.
6. If User taps anywhere outside the options:
    a. System shall close option.

Title: User Registration
Description: The User shall be able to register a username and password. The System shall
Desired Outcome: The User shall have an account.
User Goals: The User shall have an account so that they can access functions that require logging in.
Primary Actor: User of the application
Requirements:
Details:

Priority Level: Must have
Status: Unimplemented

Preconditions:

1. The User is not logged in.

Postconditions:

2. The User shall have an account.

Trigger: The User has pressed the register button.
Workflow:

1. User is at application's home screen.
2. User shall select the Register button.
3. System shall display the registration window.
4. User shall fill out the require fields of the registration window.
5. System shall create an account for the user as per the information inputted by the user.

Title: Retrieve Password
Description: If the user has forgot their password, they can retrieve their password simply by tap the "Forgot Password?" button.
Desired Outcome: User can get their preset password by Email.
User Goals: The user shall retrieve the password of his/her account.
Primary Actor: User of the Application.
Requirements: The user should be previously registered, also they should have their registration email to retrieve their password.
Details:

Priority Level: Must have.
Status: Unimplemented.

Preconditions:

1. The user shall has an account previously.
2. The user has forgot his/her password.

Postconditions:

1. The user shall get their password back by email.

Trigger: The user has tap the "Forgot Password" button.
Workflow:

1. The user is at application's login screen.
2. The user shall tap "Forgot Password?" button.
3. The system shall ask the user for their registration email address.
4. The user shall input their email address.
5. The system shall check whether the email has already registered.
    a. If it is registered:
        i. The system shall display "Your password has been sent to you by email."
        ii. The system shall send the corresponding password to the user
    b. If it is not registered:
        i. The system shall display "This email has not been registered, please try again."
        ii. The system shall take the user back to the screen which ask the user for their email.

Title: Route Recommendations
Description: The User shall input a start and end point. The System shall generate suggested routes between those two points.
Desired Result: The User shall see the best routes between the points.
User Goals: The User shall see the best routes between the points so that they can choose which path they want to take.
Primary Actor: User of application
Requirements:
Details:

Priority Level: Must have
Status: Unimplemented

Preconditions:

1. User has selected start point.
2. User has selected end point.
3. User has indicated mode of transportation or type of route they want to take.
4. If User has not indicated mode of transportation, walking will be selected as the default.

Postconditions:

1. The User shall see multiple routes from the start point to the end point, if they exist.
2. The User shall see the fastest route, which will be emphasized by highlighting.

Trigger: The User has inputted start and end points, and has clicked on the “See Directions” button.
Workflow:

1. User is at application’s home screen.
2. User shall select text-field at the top and search for destination.
3. User shall input an end point.
4. User shall input a start point or select their current location by default.
5. User shall select a mode of transportation.
6. User shall select “See Directions.”
7. System shall show multiple routes between the start point and the end point.

Title: Route Rating
Description: The User shall be able to rate a route on a 5-star scale. The system shall save the rating inputted by the user and display rating information to the user.
Desired Outcome: The User shall be able to rate specific routes and save these ratings.
User Goals: The User shall be able to rate specific routes so that they can give a rating to a specific route.
Primary Actor: User of Application
Requirements:
Details:

Priority Level: Should Have
Status: Unimplemented

Preconditions:

1. This route has been recommend to the User.
2. The User has followed the route they want to rate.
3. The User has completed the route and has arrived at the rating screen.

Postconditions:

1. That System shall save the rating.

Trigger: The user has clicked on the “Rate the Route!” button.
Workflow:

1. System shall ask the user if they want to rate the route they took.
2. If they do, the System shall show the rating screen and let them choose a score.
3. User shall input their rating for the route and press the submit button.
4. System shall show a “Thank You” screen.

Title: Add a Route - GPS
Description: The User shall walk with the device to track the route. The System shall save the route into database.
Desired Result: The System shall save the route into database.
User Goals: The User shall add a new route by walking with the device.
Primary Actor: User of application
Requirements:
Details:
Priority Level: Must have
Status: Unimplemented
Preconditions:
1. The user has enabled GPS.

Postconditions:
1. The system shall save the route.

Trigger: The user has selected to input a route using GPS.
Workflow:
1. User is at application's home screen.
2. User selects option to input route with GPS.
3. System shall prompt the user to activate their GPS if it is not on.
4. System shall direct user to the screen for inputting route.
5. User shall click "Begin" button.
6. User shall walk to the destination.
7. System shall record the path traveled.
8. User shall click "End" button upon arrival at the destination.
9. User shall select a mode of transportation for the new route.
10. System shall provide similar route and ask user if two routes are the same.
11. If the two routes are the same, the System shall do nothing further.
12. If the two routes are not the same, the System shall prompt the User for a description of the route.
13. User shall write description for the route.
14. User shall click "Save" button to save the new route into database.
15. System shall save the route.

Title: Bookmarking Routes
Description: The User shall select routes to save. The System shall save the saved routes into the database.
Desired Outcome: The System shall save the saved path.
User Goals: The User shall save selected route to a bookmarks list that can be accessed in the future.
Primary Actor: User of application
Requirements:
Details:

Priority Level: Could have
Status: Unimplemented

Preconditions:

2. User has been logged in.
3. User has selected a route.

Postconditions:

2. The system shall save the route.

Trigger: User shall tap and hold onto a selected route.
Workflow

9. User is at application's home screen.
10. User shall select desired route.
11. User shall tap and hold onto route.
12. After one second of holding, System shall spawn dialogue box prompting "Bookmark this Route?"
13. If User selects "Yes":
    a. System shall spawn window prompting user to optionally enter name and description of route. Default name shall be "[Start Location Name] to [End Location Name]", and default description shall be blank.
        i. If User selects "Cancel":
            1. System shall close dialogue box.
        ii. If User selects "Save":
            1. System shall save route.
            2. System shall add saved route to a main-menu-accessible list of "Bookmark Routes."
            3. System shall spawn text-box prompting "Bookmark successfully saved!", box shall close after two seconds.
14. If User selects "No":
    a. System shall close dialogue box.

Title: Remove Route from Bookmark
Description: The User shall remove saved route from bookmark. The System shall delete saved routes from the database for user.
Desired Outcome: The System shall delete the saved path.
User Goals: The User shall remove saved route from bookmark.
Primary Actor: User of application
Requirements:
Details:
Priority Level: Could have
Status: Unimplemented
Preconditions:
1. User has been logged in.
2. User has selected a route.

Postconditions:
1. The system shall delete the route.

Trigger: User shall tap and hold onto a selected route
Workflow
1. User is at application's bookmark screen
2. User shall select desired route.
3. User shall tap and hold onto route.
4. After one second of holding, System shall spawn option "Remove Route".
5. If User selects "Remove Route":
    a. System shall spawn dialogue box prompting "Are you confirm to remove this path from bookmark?"
        i. If User selects "Yes"
            1. System shall delete the saved routes from the database for user.
            2. System shall spawn text-box prompting "Route successfully removed!", box shall close after two seconds.
        ii. If User selects "No"
            1. System shall close dialogue box.
15. If User taps anywhere outside the option:
    a. System shall close option.

Title: Parking Recommendations
Description: User enters final destination and/or permit-specifications. System presents closest parking options based on input parameters.
Desired Outcome: The User is presented the closest accessible parking location for their final destination.
User Goals: User shall find closest parking lots to their destination.
Primary Actor: User of application
Requirements: Route Recommendations
Details:

Priority Level: Could have
Status: Unimplemented

Preconditions:

1. User has selected a route.

Postconditions:

1. The system shall save the route.

Trigger: User shall select "Parking Recommendations" option from main menu.
Workflow

1. User is at application's main menu.
2. User shall select "Parking Recommendations" option.
3. System shall load parking recommendations interface.
4. System shall prompt User to enter destination location and parking permit specification.
    a. If User enters both destination and parking permit specification:
        i. System shall highlight nearest parking lots within a to-be determined radius based on permit specification. If no lots appear in radius, gives 3 nearest parking lots.
    b. If User enters only destination:
        i. System shall load all parking lots.
    c. If User enters only parking permit specification:
        i. System shall load all parking lots of parking permit specification.
5. If destination was entered:
    a. User shall select desired parking lot.
    b. System shall load route recommendations.User shall select desired route.

Title: Classroom Schedule
Description: The User shall pick a building on the map. The System shall display the occupancy times of the building for each weekday.
Desired Result: The User shall see the occupancy schedule of the building they selected.
User Goals: The User shall see see information about the building they selected so that they can find times when the classroom is available. The user shall also be able to make educated choices about traveling in the area of the classroom.
Primary Actor: User of application
Requirements:
Details:
Priority Level: Could have
Status: Unimplemented
Preconditions: None.
Postconditions:
1. The User shall see the occupancy schedule of the building they selected.

Trigger: The User clicks on the building on the map.
Workflow:
1. User is at application's home screen.
2. User clicks on a building on the map.
3. System shall retrieve and display the occupancy information

Title: Route History
Description: The User shall be able to review the taken route. The System shall has a record of taken route for each user.
Desired Outcome: The System shall display the record of taken route for each user
User Goals: The User shall be able to review the taken route.
Primary Actor: User of application
Requirements:
Details:
Priority Level: Should have
Status: Unimplemented
Preconditions:
1. User has been logged in.
2. User has taken route(s).

Postconditions:
1. The system shall display the record of taken route.

Trigger: The user has clicked on the “History” button.
Workflow
1. User is at application’s home screen.
2. User shall click on the “History” button.
3. System shall direct user to the screen for history record.
4. User shall see a list of taken routes.

Title: Retake Previously Taken Routes
Description: The User shall be able to retake a past route. The System shall display the selected route in home screen
Desired Outcome: The System shall display the selected route in home screen.
User Goals: The User shall be able to retake the route.
Primary Actor: User of application
Requirements:
Details:
Priority Level: Should have
Status: Unimplemented
Preconditions:
1. User has been logged in.
2. User has previously taken route(s).

Postconditions:
1. The system shall display the selected route on the main map.

Trigger: The user shall tap and hold onto a selected route.
Workflow
1. User is at application's history screen.
2. User shall select desired route.
3. User shall tap and hold onto route.
4. System shall show option "Take Route".
5. If User selects "Cancel":
    a. System shall close option.
    b. System shall do nothing further.
6. If User selects "Take Route":
    a. System shall direct user to main-map home screen.
    b. System shall implement the selected route on the map.
    c. User shall retake the selected route.

Title: Destination Recommendations
Description: If the user is just a visitor and they do not want to register for an account, or some registered user are in a hurry, they can choose “Popular Sights” option in the home screen, and get a list of popular destination recommendations.
Desired Outcome: Omit the process of register and login for visitors.
User Goals: Find the route they want quickly w/o login.
Primary Actor: User of Application
Requirements:
Details:

Priority Level: Could have
Status: Unimplemented

Preconditions:

1. User is only a one-time visitor or for some reason they do not want to register.
2. User chose the “Popular Sights” option in the home screen.

Postconditions:

1. After user chose to be a “Popular Sights”, the system shall present them the destination recommendation screen.
2. User can choose between popular destination.
3. User shall get the route from their current location to the destination they select.

Trigger: The user shall select “Popular Sights” in the home screen.
Workflow:

1. User is at application’s home screen.
2. User tap the “Popular Sights” button.
3. System shall present the user a list of popular destinations.
    a. Including a list of famous sculpture or building on campus.
4. User shall select any destination they want.
5. System shall determine the location of the user.
6. System shall run the “Route Recommendation” feature and give user the best route.
7. User shall tap “Start!”.
8. System shall start the navigation.

Title: Estimated Route Times
Description: After the User searches for a route, the System shall present two estimated times. The first shall be based on distance of the route, average selected transportation speed, and other transportation-specific nuances (eg. estimated shuttle arrival time). The second shall integrate the factor of speed changes due to predicted traffic with the other factors.
Desired Outcome: The System shall present the estimated time it takes to traverse a route.
User Goals: The User shall see the estimated time it takes to traverse a route.
Primary Actor: User of application
Requirements:
Details:

Priority Level: Must have
Status: Unimplemented

Preconditions:

1. User has searched for a route.
2. The System has presented route recommendations.

Postconditions:

1. The System shall display the estimated time it takes to traverse the particular path.

Trigger: The User shall tap and hold onto a recommended route.
Workflow

1. System has presented route recommendation options.
2. The User selects a particular route by tapping.
3. The System spawns a textbox listing estimated time and estimated time with traffic.
    a. Based on User's personal settings, one of the two time will be presented with more emphasis.

Title: Shuttle Stop Schedule
Description: The User shall be able to locate shuttle stops on the map and access the stop's specific time schedule. The System shall display the live shuttle schedule to the user.
Desired Outcome: The System shall display the shuttle schedule to the user.
User Goals: The User shall be able to find shuttle stops on the map and see their respective schedule.
Primary Actor: User of application
Requirements:
Details:
Priority Level: Could have
Status: Unimplemented
Preconditions:
1. User is at the application's main map screen.

Postconditions:
1. The System shall display the live estimated times of arrival for each line that stops there.

Trigger: The User shall tap and hold onto a recommended route.
Workflow
1. The User is at the application's main map screen.
2. The User either locates a shuttle stop on the map.
3. The User taps on the shuttle stop.
4. The System spawns a box with the shuttle schedule.

Title: Route Sharing
Description: For registered users, they shall be able to share routes with their friends or share it through social media (facebook)
Desired Outcome: The user shall share shorter path they discovered or paths that they really like
User Goals: The user shall be able to share route with their friends/social media
Primary Actor: User of application
Requirements:
Details:
Priority Level: Should have
Status: Unimplemented
Preconditions:
1. User has been logged in.
2. User has given permission to share it on their social media site.

Postconditions:
1. The System shall allow the user to connect to other social media website.

Trigger: The User shall select “Share Route” from the options and connect to the social media website.
Workflow
1. The route has been saved in the system.
2. The User selected this route.
3. The User select “Share Route” button from the profile menu.
4. The User gives the system permission to connect this app with other social media.
5. The route should be share to facebook.

Title: Inputting a Route –Drawing
Description: The user shall be able to input a route by drawing a path on a map.
Desired Outcome: The system shall save the image into the database.
User Goals: The user shall be able to draw a route given the drawing tool provided by the system.
Primary Actor: User of application
Requirements:
Details:
Priority Level: Could have
Status: Unimplemented
Preconditions:
1. User has been logged into the account.
Postconditions:
1. System shall save the image.
Trigger: The user has selected "Draw Your Own Path" to input a route by drawing.
Workflow:
1. User is at application's home screen.
2. User selects "Draw Your Own Path" by clicking on the menu bar on the left
3. System shall direct the user to a new screen.
4. System shall ask the user to choose a canvas either to upload a picture of a map or to use the system provided UCSD map.
5. System shall provide a drawing tool bar that allows user to draw the path.
6. System shall provide an option to reset the canvas to allow users to redraw the path.
7. User shall click "Save" button to save the image into database.
8. System shall prompt the user to enter the starting location, the destination and the method of transportation.
9. System shall save the image.