

# USE CASE DESCRIPTIONS

## Use case : Locate Nearest Charging Port

Use Case ID:	1		
Use Case Name:	Locate Nearest Charging Location		
Created By:	Adrian Chua	Last Updated By:	Adrian Chua
Date Created:	2nd September 2023	Date Last Updated:	2nd September 2023

Actor:	Initiating Actor - App User
Description:	Users of the application are able to locate the nearest location.
Preconditions:	Users must open the app with GPS permissions enabled and activate scanning for the charging port.
Postconditions:	The onscreen map shows pop-ups of the nearest charging ports to the user's location
Priority:	High
Frequency of Use:	High
Flow of Events:	<ol style="list-style-type: none"><li>1. User turns on location services and gives the application permission for use.</li><li>2. User opens the Application to the home page.</li><li>3. Application shows charging locations near the user and its details, including the distance from the user's current location.</li><li>4. Users are able to further filter for different charging types</li><li>5. Users are able to set any particular charging location as their favourite</li><li>6. Users are able to determine the popularity of any particular charging location, given by an indicator on each charging location that shows the number of concurrent users that has this charging location near to them as well</li></ol>
Alternative Flows:	<ol style="list-style-type: none"><li>1. User does not provide the application with location services permission</li><li>2. A prompt will show up on the user's screen to on location services and give the application permission to access</li><li>3. If user refuse to give access to location services, the application will exit</li><li>4. If the user turns on location services and gives permission for the application to use, the flow will continue with the original flow of events.</li></ol>

Exceptions:	-
Includes:	Location Services (GPS)
Special Requirements:	-
Assumptions:	User has data access or is connected to Wi-Fi
Notes and Issues:	-

#### Use case : Review Charging locations

Use Case ID:	2		
Use Case Name:	Review Charging locations		
Created By:	Adrian Chua	Last Updated By:	Adrian Chua
Date Created:	2nd September 2023	Date Last Updated:	2nd September 2023

Actor:	Initiating Actor - App User
Description:	Users are able to review charging locations on the application that they deemed to be useful and reliable for other users to use.
Preconditions:	Users have a charging location to review
Postconditions:	The charging location shows the rating by the user
Priority:	Low
Frequency of Use:	Medium
Flow of Events:	<ol style="list-style-type: none"> <li>1. User selects the particular charging location he wants to review from the map</li> <li>2. User swipes up the location and selects the "Submit Reviews" option</li> <li>3. Users can review the charging location</li> <li>4. User would give the charging location a rating out of 5 stars</li> <li>5. User is also able to add optional remarks about the charging location</li> </ol>
Alternative Flows:	-
Exceptions:	-
Includes:	-
Special Requirements:	-
Assumptions:	-
Notes and Issues:	When users were to give comments on the location, their language might not be appropriate, moderators have to keep a look out and delete inappropriate comments.

#### Use case : Send new undiscovered charging location

Use Case ID:	3
Use Case Name:	Send new undiscovered charging location

Created By:	Adrian Chua	Last Updated By:	Adrian Chua
Date Created:	2nd September 2023	Date Last Updated:	2nd September 2023

Actor:	Initiating Actor - App User
Description:	Users are able to send and notify about new undiscovered charging port locations that are not currently available on the map of the application.
Preconditions:	Charging port location is not yet discovered and is not present on the application
Postconditions:	After verification with the admins, the new charging location can be added to the database containing all the charging locations and it will be shown on the map for other users.
Priority:	Medium
Frequency of Use:	Medium
Flow of Events:	<ol style="list-style-type: none"> <li>1. User navigates to the "activity" page in the application.</li> <li>2. User selects the option to submit an undiscovered charging port location.</li> <li>3. A pop-up form will appear for the user to fill up the information for the undiscovered charging port.</li> <li>4. The user takes a picture using the phone camera or uploads an image from the gallery of the location of the charging location as well as the exact location.</li> <li>5. In the form, in addition to the photo and the exact location, it will also require the user to input the charging location type , whether it is lockable, the capacity of the charging location as well as whether it is a paid/public area.</li> <li>6. The form will contain checkboxes for all the possible information for a charging location and the user should tick wherever appropriate.</li> <li>7. Once the form is submitted, it will undergo a review by admins to verify the authenticity of the new charging location.</li> <li>8. Once it is verified and approved, the admins will add the new charging location along with all its information into the database containing all the charging locations and other users will be able to view it on their maps when they open the application.</li> <li>9. A notification will be sent to the user to notify the user that his new charging location is approved.</li> <li>10. The user will be given points and it will be credited under his account, which the user can see under the "rewards" tab.</li> </ol>
Alternative Flows:	<ol style="list-style-type: none"> <li>1. User sends a submission of an invalid undiscovered charging location</li> <li>2. The case will rejected by the admin</li> </ol>

	3. A notification is sent to the user to inform them that the case is rejected 4. The submission of the new location will be moved into the User's profile tab under history
Exceptions:	-
Includes:	-
Special Requirements:	Clear image and precise location of the charging location
Assumptions:	-
Notes and Issues:	-

#### Use case : Report damaged or incorrectly described ports

Use Case ID:	4		
Use Case Name:	Damaged or Incorrectly described ports reporting		
Created By:	Winfred Cheok	Last Updated By:	Winfred Cheok
Date Created:	2nd September 2023	Date Last Updated:	2nd September 2023

Actor:	Initiating Actor - App User
Description:	User is able to report damaged or incorrectly described ports through the app. This allows the app to remain as updated as possible and also allows users to earn points through their good will.
Preconditions:	-
Postconditions:	The review will be processed by the management team and would result in either a "Approved" or "Rejected" outcome.
Priority:	Medium
Frequency of Use:	Medium
Flow of Events:	<ol style="list-style-type: none"> <li>1. User spots a damaged or incorrectly described port.</li> <li>2. User log into the app and select "activity"</li> <li>3. User selects either "damaged" or "incorrectly described" option for the port</li> <li>4. User takes a photo and upload it into the app</li> <li>5. User selects the corresponding options, depending on whether it is damaged or incorrectly described.</li> <li>6. User submits the case and gets a pop up text saying "Thank you for your contribution, the case will be reviewed shortly"</li> <li>7. The review will be reflected under history in the "Profile" tab and have the status "Pending" until the case is settled.</li> <li>8. When the case is verified, the user will get a notification stating that the case has been verified and the exact number of points will be credited into his account</li> </ol>

	9. The case status will be updated from “Pending” to “Approved” under history in the “Profile” tab.
Alternative Flows:	<ol style="list-style-type: none"> <li>1. The case is rejected because it was an invalid/incorrect submission.</li> <li>2. User will get a notification stating that the case is rejected with the reason why it was rejected.</li> <li>3. No points will be credited into his account</li> <li>4. The case status will be updated from “Pending” to “Rejected” under history in the “Profile” tab.</li> </ol>
Exceptions:	-
Includes:	-
Special Requirements:	A clear image of the port and filling in of the corresponding options would be required for the case to be approved.
Assumptions:	-
Notes and Issues:	-

**Use case : Points redeemed ( should it be split ? cause one is “admin” award points, the other is user ownself redeem whatever is available )**

Use Case ID:	5(a)		
Use Case Name:	User redeem rewards with points		
Created By:	Winfred Cheok	Last Updated By:	Winfred Cheok
Date Created:	2nd September 2023	Date Last Updated:	2nd September 2023

Actor:	Initiating Actor - App User
Description:	Users can redeem rewards they have accumulated from various activities in the app such as discovery and reporting.
Preconditions:	User must have accumulated enough points for redemption
Postconditions:	-
Priority:	Low
Frequency of Use:	Medium
Flow of Events:	<ol style="list-style-type: none"> <li>1. User login into the app and click on rewards tab</li> <li>2. Users can browse the rewards catalogue</li> <li>3. Users can click on the individual rewards to find out more information</li> <li>4. Users can redeem the reward with their points</li> <li>5. The corresponding number of points will be deducted from their total points.</li> <li>6. Their remaining points will be instantly reflected.</li> <li>7. The reward can be found under “MyRewards”</li> </ol>
Alternative Flows:	<ol style="list-style-type: none"> <li>1. User selects a reward but does not have enough points to redeem.</li> </ol>

	2. User would not be able to click on the redeem button and a small warning text stating “ Insufficient points “ will be reflected below.
Exceptions:	-
Includes:	-
Special Requirements:	-
Assumptions:	-
Notes and Issues:	-

**Use case : Points earned and redeemed ( should it be split ? cause one is “admin” award points, the other is user ownself redeem whatever is available )**

Use Case ID:	5(b)		
Use Case Name:	Points awarded to user from admin		
Created By:	Winfred Cheok	Last Updated By:	Winfred Cheok
Date Created:	2nd September 2023	Date Last Updated:	2nd September 2023

Actor:	Initiating actor - Admin
Description:	Admin would be able to award points to users by verifying their submitted cases.
Preconditions:	Users submit cases for Admin to verify
Postconditions:	Cases submitted have been fully verified
Priority:	Low
Frequency of Use:	Medium
Flow of Events:	<ol style="list-style-type: none"> <li>1. Admin accesses the database</li> <li>2. Admin selects a pending case.</li> <li>3. Admin checks if the case submission is valid.</li> <li>4. Admin approves the case and awards the points to the corresponding User.</li> <li>5. The case status will be updated from “Pending” to “Approved”.</li> <li>6. The user gets a notification that their case has been verified and the exact number of points they have been awarded</li> </ol>
Alternative Flows:	<ol style="list-style-type: none"> <li>1. Admin rejects a case as it is invalid</li> <li>2. Admin types out the exact reason why the case is rejected.</li> <li>3. The user gets a notification that their case has been rejected and the reason why it has been rejected.</li> <li>4. The case status will be updated from “Pending” to “Rejected”</li> <li>5. No points would be awarded to the user.</li> </ol>
Exceptions:	-
Includes:	-

Special Requirements:	-
Assumptions:	-
Notes and Issues:	-

#### Use case : Member (User) login verification

Use Case ID:	6		
Use Case Name:	User login verification		
Created By:	Winfred Cheok	Last Updated By:	Winfred Cheok
Date Created:	2nd September 2023	Date Last Updated:	2nd September 2023

Actor:	Initiating actor - Application user Participating actor - Database Administrator (DBA)
Description:	The DBA would check whether the account exists and whether the account login details are correct.
Preconditions:	
Postconditions:	User manages to login successfully.
Priority:	High
Frequency of Use:	High
Flow of Events:	<ol style="list-style-type: none"> <li>1. User opens app and app requests login information</li> <li>2. User enters his username and password</li> <li>3. DAS checks for the existence of this account</li> <li>4. The account exists and its corresponding password is correct</li> <li>5. User would be able to login successfully</li> </ol>

Alternative Flows:	<ol style="list-style-type: none"> <li>Account does not exists <ul style="list-style-type: none"> <li>User opens app and app requests login information</li> <li>User enters his username and password</li> <li>DAS checks for the existence of this account</li> <li>Account does not exist</li> <li>A error message "First time user please sign up"</li> <li>User selects sign up</li> <li>User inputs email address</li> <li>User inputs valid username</li> <li>User inputs valid password</li> <li>User reconfirms valid password</li> <li>DAS records user's login details</li> <li>User will have to login with new account just created</li> </ul> </li> <li>Wrong password <ul style="list-style-type: none"> <li>User opens app and app requests login information</li> <li>User enters his username and password</li> <li>DAS checks for the existence of this account</li> <li>Account exists, however password does not match username.</li> <li>Error message " Invalid password, please try again" will be displayed</li> <li>User tries again.</li> <li>After 3 tries, error message " Forget password ?" will be displayed</li> <li>User clicks on forget password link</li> <li>" Reset password link being sent to this email address, please change your password from the link"</li> <li>A reset password link would be sent to their email address</li> <li>User open up their email and search for the reset password email</li> <li>User can click on the link and change their password</li> <li>User changes their password successfully.</li> <li>User login into the app with their username and new password</li> </ul> </li> </ol>
Exceptions:	-
Includes:	-
Special Requirements:	No duplicate emails and usernames
Assumptions:	Users have an email address
Notes and Issues:	-