

# Use Cases

for

# Charge

Version 0.0

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## Use Case List

<b><i>ID</i></b>	<b><i>Primary Actor</i></b>	<b><i>Use Case Title</i></b>
1.0	Navigator	Route a distance greater than EV range
2.0	Searcher	Zoom in on map to show charge stations in given area

## Case 1.0

Use Case ID:	1.0		
Use Case Name:	Route a distance greater than EV range		
Created By:	Zachary Ganger, Bianca Annoscia, Daniel Lipovsky, Zachary Lister	Last Updated By:	Zachary Ganger, Bianca Annoscia, Daniel Lipovsky, Zachary Lister
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Actors:	Navigator
Description:	Since EV's have limited range and charging stations are relatively sparse and poorly advertised, the user should be able to enter an origin, a destination, and the range of their vehicle and receive a Google Maps-style route including stops for recharging
Trigger:	Navigator requests a route to destination
Preconditions:	<ol style="list-style-type: none"> <li>1. User has network connection</li> <li>2. User must be authenticated</li> <li>3. User must have set up profile (Car model, home city, etc)</li> <li>4. User should have EV</li> </ol>
Postconditions:	<ol style="list-style-type: none"> <li>1. If destination is unreachable within range, prompt user</li> <li>2. Else provide route on map and listed directions</li> </ol>
Normal Flow:	<ol style="list-style-type: none"> <li>1. User logs in</li> <li>2. User searches using destination, current location as default</li> <li>3. User selects from several route options</li> <li>4. User follows selected route to destination</li> </ol>

Alternative Flows:	<ol style="list-style-type: none"> <li>1. User logs in</li> <li>2. User provides both origin and destination</li> <li>3. User selects from several route options</li> <li>4. User follows selected route to destination</li> </ol>
Exceptions:	<ol style="list-style-type: none"> <li>1. Destination is not reachable by car range (provide alternatives, i.e. car rental)</li> <li>2. Invalid destination (Prompt user to re-enter field)</li> </ol>
Includes:	2.0. Mapping charge stations on map
Priority:	Top priority!! This is the whole point.
Frequency of Use:	Predictably once/week or on extended trips including business trips or vacations. Likely use during free time or long trips, due to likelihood that trips outside free time will likely be along known routes.
Business Rules:	Remind users that if charge station in use, they may need to account for this in trip duration
Special Requirements:	<ol style="list-style-type: none"> <li>1. Zoom map to maximize size of route in window</li> </ol> <p>Possibilities:</p> <ol style="list-style-type: none"> <li>2. Account for traffic if data is available</li> </ol>
Assumptions:	<ol style="list-style-type: none"> <li>1. User has EV</li> <li>2. User has connected device</li> <li>3. User has e-mail address/facebook for authentication</li> <li>4. User can verify vehicle information</li> </ol>
Notes and Issues:	<ol style="list-style-type: none"> <li>1. Performance affected by connection</li> <li>2. Keep crashes to a minimum</li> <li>3. Route should provide cushion for range to lower likelihood of depleted charge</li> </ol>

## Revision History

Name	Date	Reason For Changes	Version
Zachary Ganger, Bianca Annoscia, Daniel Lipovsky, Zachary Lister	02/22/2016	Initial commit	0.0