



# USE CASE DESCRIPTIONS

BUZAPP PROJECT SPECIFICATION

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## USE CASE DESCRIPTIONS

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### Use Case Descriptions

#### Add Favourites

Use Case Name	Add Favourites
Participating Actors	User, Transport API
Flow of Events	<p>Normal Path</p> <ol style="list-style-type: none"><li>1. Use case gets nearest list from Transport API</li><li>2. API loads 7 nearest stops to their location</li><li>3. The user selects a bus stop from the list</li><li>4. The User clicks on the add button from the bus stop information</li></ol>

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	<ol style="list-style-type: none"><li>5. This bus stop is added to the user's favourites list</li></ol> <p>Alternative Path</p> <ol style="list-style-type: none"><li>1. Use case calls the API</li><li>2. The API has run out of hits and therefore doesn't send data back</li><li>3. No data sent back to the user</li><li>4. User has to wait until the next day when the hits are reset</li></ol>
Entry Condition	<ul style="list-style-type: none"><li>• User enabled location services</li><li>• Application gets location of user</li></ul>
Exit Condition	<ul style="list-style-type: none"><li>• Favourite Bus Stop Added</li><li>• User closes app</li></ul>

### Get Favourites Information

Use Case Name	Get Favourites Information
Participating Actors	Transport API, User
Flow of Events	<p>Normal Path</p> <ol style="list-style-type: none"><li>1. The app retrieves the user's favourite stops</li><li>2. User selects one of their favourite stops</li><li>3. Transport API uses this to find all the information about the next buses</li><li>4. The Transport API will then find the next 5 buses that are arriving at that stop</li></ol> <p>Alternative Path</p> <ol style="list-style-type: none"><li>1. User selects one of their favourite stops</li></ol>

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	<ol style="list-style-type: none"><li>2. The Transport API has run out of hits and can't get the user's favourite stops information</li><li>3. The user has to wait until the next day to get this information</li></ol>
Entry Condition	<ul style="list-style-type: none"><li>• User has a favourite stop added</li></ul>
Exit Condition	<ul style="list-style-type: none"><li>• User closes app</li></ul>

### Retrieve Favourites Stops

Use Case Name	Retrieve favourite stops
Participating Actors	Transport API, User, Mapkit
Flow of Events	<p>Normal Path</p> <ol style="list-style-type: none"><li>1. The app retrieves the user's favourite stops</li><li>2. User selects one of their favourite bus stops</li><li>3. Mapkit gets the location of the bus stop and user and shows directions from the user to the stop</li><li>4. Transport API then gets the bus information and displays the next 5 buses leaving that stop</li></ol> <p>Alternative Path</p> <p>Condition 1:</p> <ol style="list-style-type: none"><li>1. User doesn't enable location services</li><li>2. Mapkit can't get the location of the user and the bus stop</li><li>3. User enables location services from settings</li></ol> <p>Condition 2:</p> <ol style="list-style-type: none"><li>1. The app retrieves the user's favourite stops</li></ol>

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	<ol style="list-style-type: none"> <li>2. User selects one of their favourite stops</li> <li>3. Mapkit gets the location of the bus stop and user</li> <li>4. The Transport API has hit its daily limit and is unable to display the next 5 buses</li> <li>5. User has to wait until the next day to make this request</li> </ol>
Entry Condition	<ul style="list-style-type: none"> <li>• User enabled location services</li> <li>• Location of user retrieved</li> <li>• User has a favourite stop added</li> </ul>
Exit Condition	<ul style="list-style-type: none"> <li>• User closes app</li> </ul>

### Adds to and from location

Use Case Name	Adds to and from location
Participating Actors	User, Mapkit, Transport API
Flow of Events	<p>Normal Path</p> <ol style="list-style-type: none"> <li>1. The user inputs the to and from location for their journey</li> <li>2. The user then presses the button to calculate the length of this journey</li> <li>3. The transport API then takes the two locations and calculates the length of the journey, detailing the route the user should take</li> </ol> <p>Alternative Path</p> <p>Condition 1:</p> <ol style="list-style-type: none"> <li>1. User enters a location that doesn't exist</li> </ol>

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	<p>2. The transport API cannot find this location so the journey duration and route isn't retrieved</p> <p>Condition 2:</p> <ol style="list-style-type: none"> <li>1. The user inputs the to and from location</li> <li>2. User selects to calculate the journey</li> <li>3. The Transport API has hit its daily limit and is unable to retrieve the duration and route of the journey</li> <li>4. User has to wait until the next day to make this request</li> </ol>
Entry Condition	<ul style="list-style-type: none"> <li>• User enabled location services</li> <li>• Location of user retrieved</li> </ul>
Exit Condition	<ul style="list-style-type: none"> <li>• User closes app</li> </ul>

### Gets bus time and journey duration

Use Case Name	Gets bus time and journey duration
Participating Actors	Transport API, User
Flow of Events	<p>Normal Path</p> <ol style="list-style-type: none"> <li>1. The user enters the to and from location and calculates the journey</li> <li>2. Transport API uses this to find the information about how to get to the destination, with the route the user can take and the expected arrival time</li> <li>3. The Transport API will then display this route to the user</li> </ol> <p>Alternative Path</p>

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	<ol style="list-style-type: none"><li>1. User enters the to and from location and calculates journey</li><li>2. The Transport API has run out of hits and can't get the user's journey information</li><li>3. The user has to wait until the next day to get this information</li></ol>
Entry Condition	<ul style="list-style-type: none"><li>• User has a favourite stop added</li></ul>
Exit Condition	<ul style="list-style-type: none"><li>• User closes app</li></ul>

### **Request Calendar Access**

Use Case Name	Request Calendar Access
Participating Actors	User, EKEEvent
Flow of Normal Events	<u>Access given to access calendar</u> <ol style="list-style-type: none"><li>1. User requests for calendar access</li><li>2. EventKit authorises calendar access to the user</li></ol>
Flow of Alternative Events	<u>User denies access to calendar</u> <ol style="list-style-type: none"><li>1. User denies access to calendar</li><li>2. EKEEvent doesn't give permission to the user to access the calendar</li><li>3. User needs to allow permission to access the calendar</li></ol>
Pre-condition	<ul style="list-style-type: none"><li>• Application idle on calendar storyboard</li></ul>
Post-condition	<ul style="list-style-type: none"><li>• Access given to the user to access the calendar</li></ul>

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### Check Calendar Access

Use Case Name	Check Calendar Access
Participating Actors	User, EKEvent
Flow of Normal Events	<u>Access authorised to access calendar</u> <ol style="list-style-type: none"><li>1. User requests for permission to access the calendar</li><li>2. EKEvent checks authorisation status</li><li>3. Extend Requests Calendar Access</li><li>4. Permission given to the user</li></ol>
Flow of Alternative Events	<u>Access denied to calendar</u> <ol style="list-style-type: none"><li>1. User denies access to calendar</li><li>2. EKEvent checks authorisation status</li><li>3. Extend Requests Calendar Access</li><li>4. User denied to access calendar</li><li>5. User requires to allow permission to access calendar</li></ol>
Pre-condition	<ul style="list-style-type: none"><li>• Application idle on calendar storyboard</li></ul>
Post-condition	<ul style="list-style-type: none"><li>• User authorised to access calendar</li></ul>



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### Get Calendar Events

Use Case Name	Get Calendar Events
Participating Actors	User, EKEvent, EKCalendar
Flow of Normal Events	<u>Gets calendar events</u> <ol style="list-style-type: none"><li>1. Include check calendar access</li><li>2. EKCalendar gets all available calendar titles from the calendar</li><li>3. Each event from the calendar is found</li><li>4. Events from the calendars are displayed to the user</li></ol>
Flow of Alternative Events	<u>Unable to get calendar events</u> <ol style="list-style-type: none"><li>1. EKCalendar gets all available calendar titles from the calendar</li><li>2. No events found from the calendar</li><li>3. No events displayed to the user</li></ol>
Pre-condition	<ul style="list-style-type: none"><li>• User authorised to access the calendar</li></ul>
Post-condition	<ul style="list-style-type: none"><li>• Events have been retrieved from the various calendars and ready to be displayed to the user</li></ul>

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### Retrieve Calendar Events

Use Case Name	Retrieve Calendar Events
Participating Actors	User, EKEvent, EKCalendar
Flow of Normal Events	<u>Retrieve calendar events</u> <ol style="list-style-type: none"><li>1. Include get calendar events</li><li>2. Calendar events are displayed to the user</li></ol>
Flow of Alternative Events	<u>Unable to retrieve calendar events</u> <ol style="list-style-type: none"><li>1. Include get calendar events</li><li>2. Calender events not displayed</li></ol>
Pre-condition	<ul style="list-style-type: none"><li>• User authorised to access the calendar</li></ul>
Post-condition	<ul style="list-style-type: none"><li>• Events displayed to the user from all available calendars</li></ul>