



Campus Go Elaboration Document

Campus Go Shuttle Portal

Team Members:

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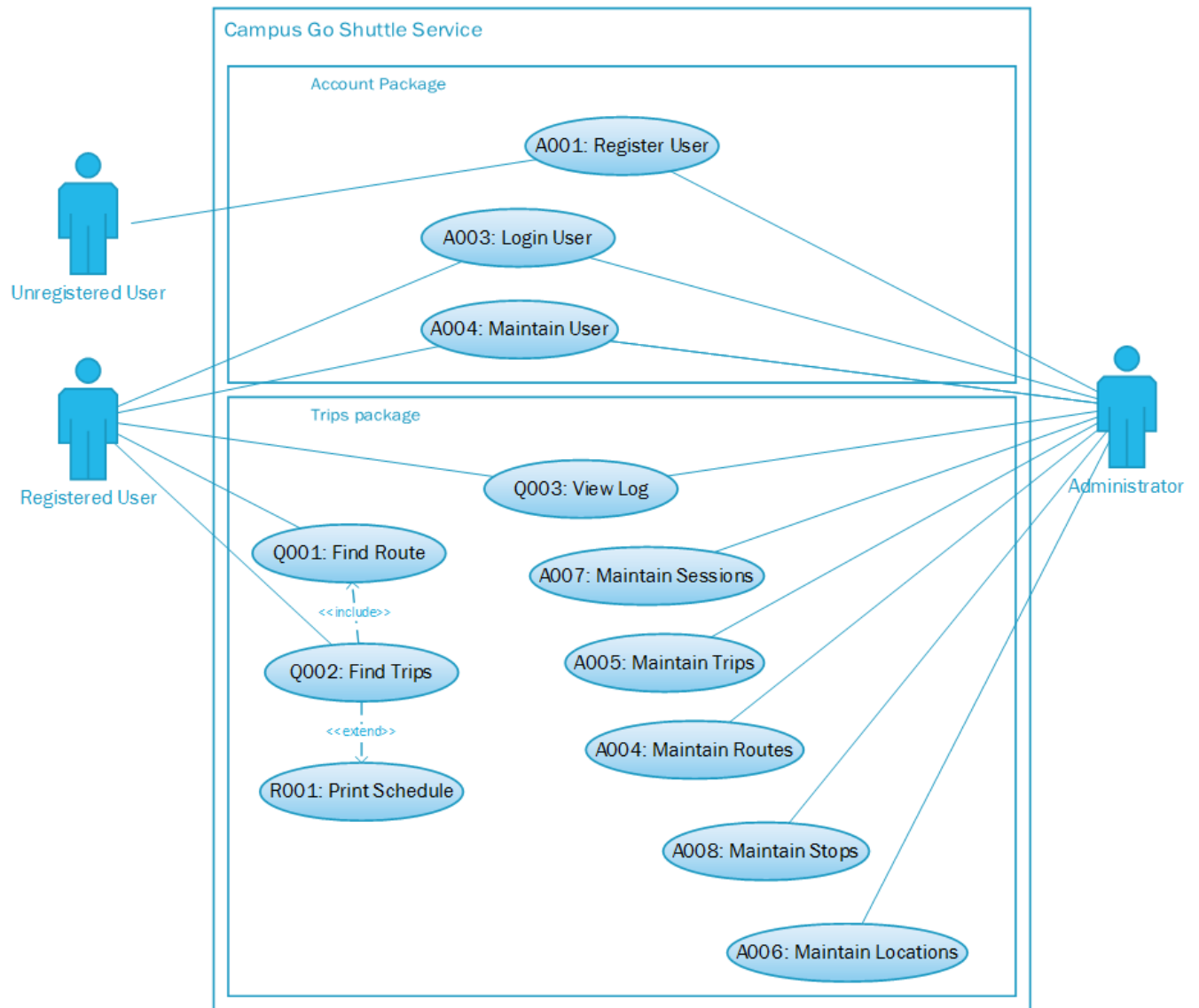
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1 FUNCTIONAL REQUIREMENTS

1.1 Analysis Use Case Model



1.2 Use Case Glossary and Responsibilities

Team Member Responsible: Sithembile Ncube		
Use Case Id	Use Case Name	Notes
A001	Register User	Unregistered User is given access to the system
A002	Maintain User	Managing account details of registered user by registered user or administrator. (ie. Password changing, username changing and removing account)
A003	Log In	Provides access to registered users
Queries/Reports		
Q001	Find Route	Registered user searches for routes by start and end location. Result displayed on map
Q002	Find Trips	Registered user searches for trips at given times for specific routes. Results show in table.

Team Member Responsible: Ndumiso Ndika		
Use Case Id	Use Case Name	Notes
A004	Maintain Routes	Administrator adds, edits or deletes routes from the database.
A005	Maintain Trips	Administrator adds, edits or deletes trips from the database
Queries/Reports		
Q003	View Log	Allows viewing of a user's previously selected trips by registered user or viewing of all trips by administrator

Team Member Responsible: Siphato Krwempe		
Use Case Id	Use Case Name	Notes
A006	Maintain Locations	Administrator adds, edits or deletes locations from the database.
A007	Maintain Sessions	Administrator adds, edits or deletes sessions from the database
A008	Maintain Stops	Administrator adds, edits or deletes stops from the database
Queries/Reports		
R001	Print Schedule	For a queried route or trip, a schedule of all trips can be printed by a registered user.

2 UI Prototypes

2.1 Team UI Guidelines

2.1.1 UI style

Designmodo Flat UI style <http://designmodo.github.io/Flat-UI/>

Buttons



Input



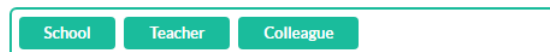
Dropdown



Select



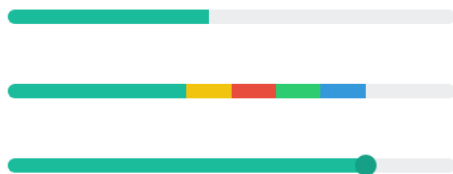
Tags input



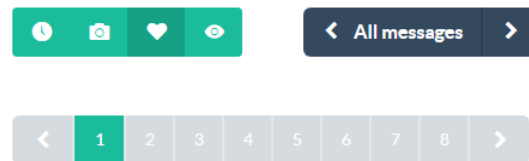
Navbar



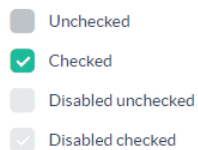
Progress bars & Sliders



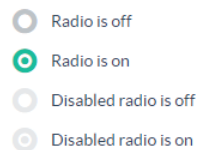
Navigation



Checkboxes



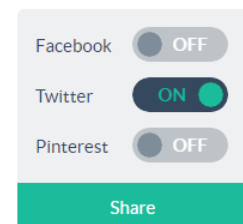
Radio Buttons



Switches



Share



2.1.2 Fonts

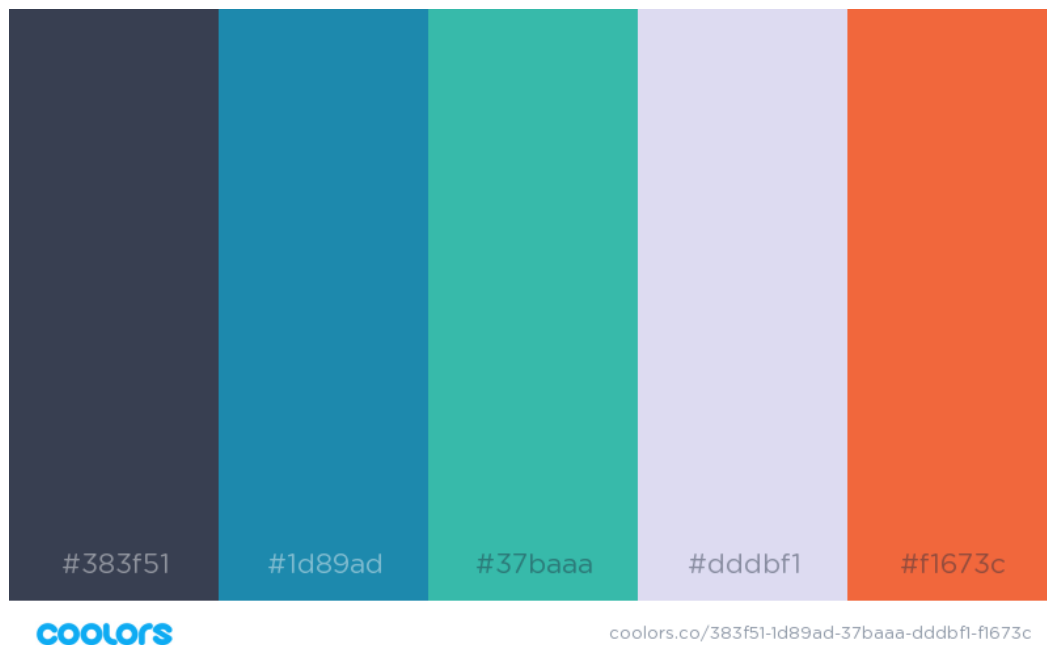
- Raleway Medium for headings
- Open Sans for body and elements

The spectacle before us was indeed sublime.

Apparently we had reached a great height in the atmosphere, for the sky was a dead black, and the stars had ceased to twinkle. By the same illusion which lifts the horizon of the sea to the level of the spectator on a hillside, the sable cloud beneath was dished out, and the car seemed to float in the middle of an immense dark sphere, whose upper half was strewn with silver. Looking down into the dark gulf below, I could see a ruddy light streaming through a rift in the clouds.

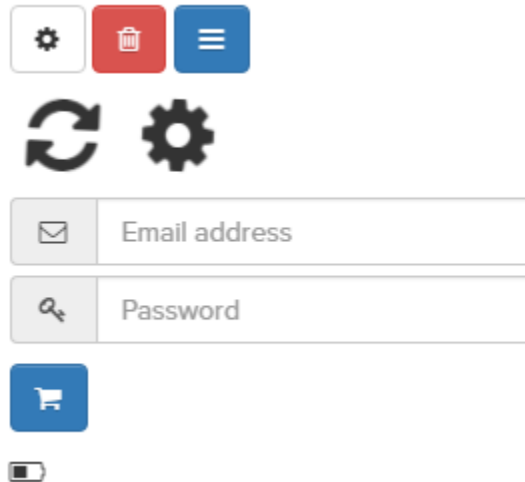
2.1.3 Color scheme

- Navy Blue background and text
- Pelorous Blue and Sea Green elements
- Light Gray font
- Orange-Red accents



2.1.4 Icons

Font awesome glyphs contains a library of 675 free to use icons that can be used as buttons, icons and animations on the web.



2.1.5 Notes

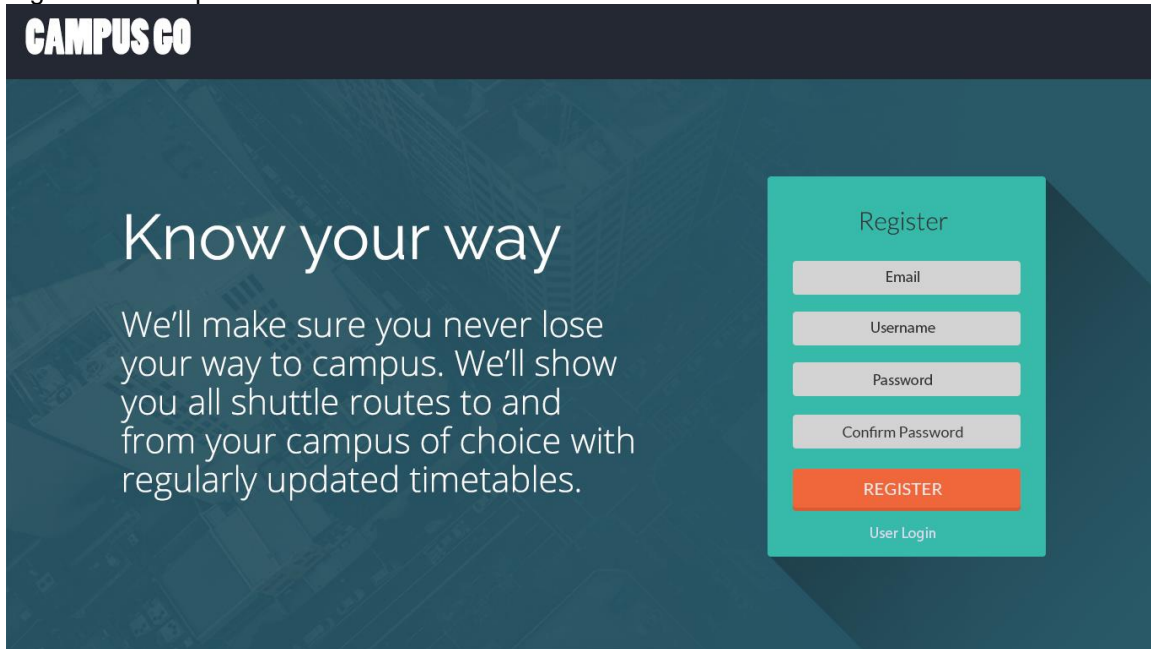
- Maintain a minimum number of screens containing all interactions. Recommended 3 or 4 screens overall.
- Use pop up messages and expanding interfaces where minimal changes will be made.
- Errors displayed with noticeable red highlight with error number contained.
- Accent color used on buttons, map pins and clickable elements.

2.2 UI Designs

2.2.1 Sithembile Ncube

2.2.1.1 A001: Register User

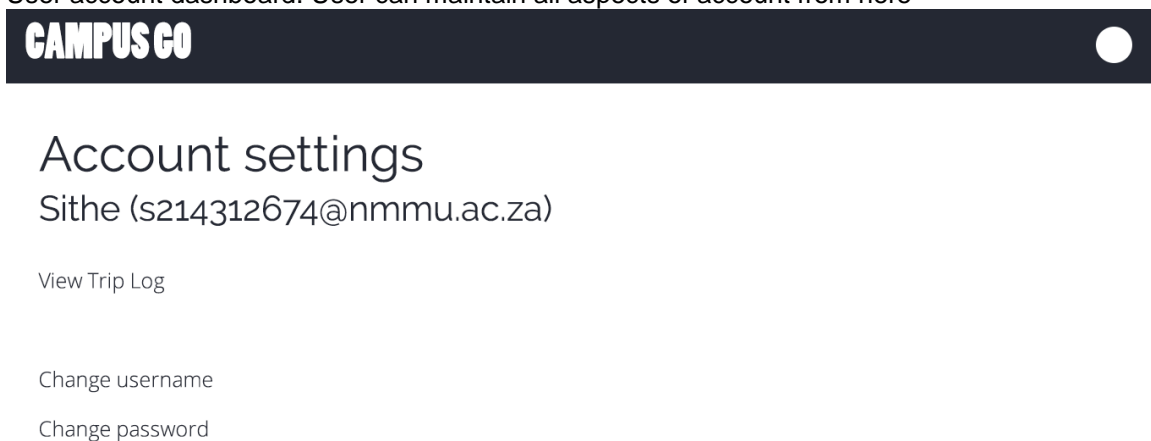
Home page contains registration/log in box on the right. No access to other screens until registration completed.



The image shows a UI design for the 'CAMPUS GO' home page. At the top is a dark blue header with the 'CAMPUS GO' logo in white. The main background is a dark teal color with a faint, light-colored map of a campus. On the left, the text 'Know your way' is displayed in a large, white, sans-serif font. Below it, a paragraph of white text reads: 'We'll make sure you never lose your way to campus. We'll show you all shuttle routes to and from your campus of choice with regularly updated timetables.' On the right side, there is a white rectangular box with a teal border and a drop shadow. The box is titled 'Register' in teal. It contains four white input fields with teal borders, labeled 'Email', 'Username', 'Password', and 'Confirm Password'. Below these fields is a large orange button with the text 'REGISTER' in white. At the bottom of the box is a link that says 'User Login' in teal.

2.2.1.2 A002: Maintain User

User account dashboard. User can maintain all aspects of account from here



The image shows a UI design for the 'CAMPUS GO' account settings page. At the top is a dark blue header with the 'CAMPUS GO' logo in white on the left and a white circular profile picture placeholder on the right. Below the header, the text 'Account settings' is displayed in a large, dark grey, sans-serif font. Underneath it, the user's email address 'Sithe (s214312674@nmmu.ac.za)' is shown in a smaller, dark grey font. Further down, there are three links in a dark grey font: 'View Trip Log', 'Change username', and 'Change password'.

Below is an example of how the user interface will limit the number of screens by allowing UI elements or spaces to expand where only few elements require changing.

CAMPUS GO



Account settings

Sithe (s214312674@nmmu.ac.za)

[View Trip Log](#)

[Change username](#)

Sithembile

CONFIRM

[Change password](#)

An example of using red to highlight errors in the user interface. Also usually clickable elements have been muted as the element will not provide a result when clicked since the password does not meet the required standards.

CAMPUS GO



Account settings

Sithe (s214312674@nmmu.ac.za)

[View Trip Log](#)

[Change username](#)

[Change password](#)

CONFIRM

PASSWORD MUST BE AT LEAST 6 CHARACTERS

2.2.1.3 A003: Log In

Same as Home page and registration page

The screenshot shows the 'CAMPUS GO' logo in the top left corner. The main heading is 'Know your way' in a large, white, sans-serif font. Below it, a paragraph of white text reads: 'We'll make sure you never lose your way to campus. We'll show you all shuttle routes to and from your campus of choice with regularly updated timetables.' To the right of this text is a teal-colored login box. Inside the box, the title 'User Login' is at the top. Below it are two input fields: the first is labeled 'Username' and the second is filled with asterisks. A red 'LOGIN' button is positioned below the password field. At the bottom of the box are two links: 'Register' and 'Forgot Password?'.

2.2.1.4 Password recovery pop-up

Pop up messages will appear in this manner. With the rest of the screen muted and the pop up displayed in the center with a bright call to action button.

This screenshot shows the same 'CAMPUS GO' login page as before, but with a white pop-up window centered over it. The pop-up is titled 'Reset password'. It contains a text input field with the placeholder 'you@youremail.com' and a red 'SUBMIT' button. The background of the login page is dimmed to a dark teal color. The 'User Login' box is still visible in the background, showing the 'Username', password field, 'LOGIN' button, and 'Register'/'Forgot Password?' links.

2.2.1.5 Admin Dashboard

Maintenance of trip data and users will be accessed from the administrators dashboard



Administrator Dashboard
Janine

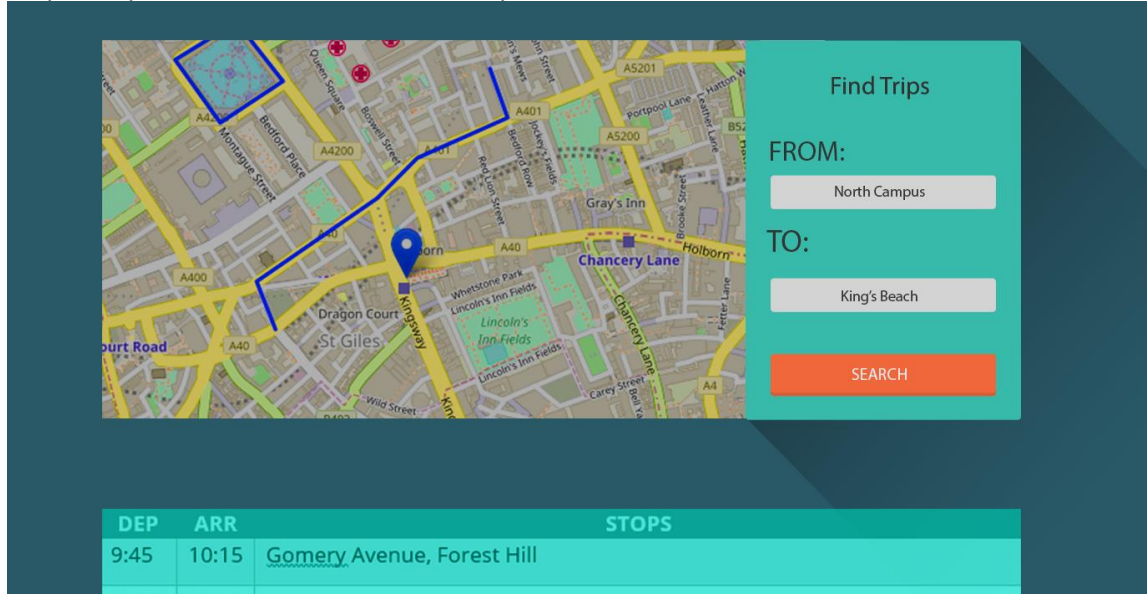
Add/Edit User

View Trip Logs

Manage Trips and Scheduling

2.2.1.6 Q001: Find Routes

Simple drop down selections to choose departure and arrival slots.



2.2.1.7 Q002: Find Trips

[illegible]

2.2.2 Ndumiso Ndika

2.2.2.1 A004: Maintain Routes

All maintenance of routes, stops, sessions, trips and locations will be done from a single screen. Upon selection of field to edit/add, the screen below the selection will change to show the necessary elements to the user.

The screenshot shows the 'SELECT FIELD TO MAINTAIN' interface for Route maintenance. It features a dark blue header with the 'CAMPUS GO' logo and a white circular button. The main area has a teal background with the title 'SELECT FIELD TO MAINTAIN'. Below the title are several input fields: 'ADD' (with a dropdown arrow), 'ROUTE' (with a dropdown arrow), 'START LOCATION' (with a dropdown arrow), and 'END LOCATION' (with a dropdown arrow). There are two 'ADD STOP' buttons, one with a '+' icon to its left. A red 'SUBMIT' button is positioned below the 'ADD STOP' buttons. At the bottom, there is a map of Bloomsbury, London, with a blue route line and several red location pins. The map includes street names like 'Russell Square', 'Portico Lane', and 'A400'.

2.2.2.2 A005: Maintain Trips

Trip data displayed in table and highlighted trip is selected for editing.

The screenshot shows the 'SELECT FIELD TO MAINTAIN' interface for Trip maintenance. It features a dark blue header with the 'CAMPUS GO' logo and a white circular button. The main area has a teal background with the title 'SELECT FIELD TO MAINTAIN'. Below the title are several input fields: 'EDIT' (with a dropdown arrow), 'TRIP' (with a dropdown arrow), 'ROUTE001' (with a dropdown arrow), and 'SESSION013' (with a dropdown arrow). A red 'SUBMIT' button is positioned below the 'SESSION013' field. To the right of the input fields is a map of Bloomsbury, London, with a blue route line and several red location pins. Below the map is a table displaying trip data. The table has six columns: Route, Location, Session, and two time columns. The first three rows are highlighted in grey, and the fourth row is highlighted in white.

ROUTE000	NORTH CAMPUS	SECOND AV	SESSION011	09:00	09:30
ROUTE001	NORTH CAMPUS	HUMEWOOD	SESSION011	09:00	09:30
ROUTE001	NORTH CAMPUS	HUMEWOOD	SESSION013	17:30	18:00

2.2.2.3 Q003: View Trip Log

A trip log is displayed for a single user. Administrators will be able to view all trips if user is not specified.

The screenshot shows the CAMPUSGO application interface for the 'TRIP LOG' section. At the top, there is a dark header with the 'CAMPUSGO' logo and a circular profile icon. Below the header, the title 'TRIP LOG' is centered. A search bar labeled 'SEARCH USER' with a dropdown arrow is positioned above a table. The table contains three rows of trip data. The first two rows have a light gray background, and the third row has a darker gray background. The table columns are: ROUTE, CAMPUS, LOCATION, SESSION, and two time columns. Below the table is a large, empty light gray rectangular area.

ROUTE000	NORTH CAMPUS	SECOND AV	SESSION011	09:00	09:30
ROUTE001	NORTH CAMPUS	HUMEWOOD	SESSION011	09:00	09:30
ROUTE001	NORTH CAMPUS	HUMEWOOD	SESSION013	17:30	18:00

2.2.3 Siphato Kwrempe

2.2.3.1 A006: Maintain Location

Allows for adding and editing a location. When 'Edit' is selected a list of existing locations is displayed a location can be selected from this list for editing.

The screenshot shows the CAMPUSGO application interface for the 'SELECT FIELD TO MAINTAIN' section. At the top, there is a dark header with the 'CAMPUSGO' logo and a circular profile icon. Below the header, the title 'SELECT FIELD TO MAINTAIN' is centered. There are two input fields: one labeled 'ADD' with a dropdown arrow, and another labeled 'LOCATION'. Below these fields, there is a text input field labeled 'ENTER LOCATION NAME' with a clear icon (X) and an orange 'ADD' button.

CAMPUSGO

SELECT FIELD TO MAINTAIN

EDIT

LOCATION

SUMMERSTRAND

SUBMIT

LIST OF LOCATIONS SHOWN HERE. HIGHLIGHTED OPTION TO BE EDITED

CENTRAL
NORTH END
WALMER
SUMMERSTRAND

2.2.3.2
A007: Maintain Session

CAMPUSGO

SELECT FIELD TO MAINTAIN

EDIT

SESSION

DATE

START TIME

END TIME

SUBMIT

LIST OF SESSIONS SHOWN HERE. HIGHLIGHTED OPTION TO BE EDITED

05/09/2017	09:00	09:30
05/09/2017	14:00	14:30
05/09/2017	17:00	17:30
05/10/2017	07:45	08:15

2.2.3.3 A008: Maintain Stop

CAMPUSGO

SELECT FIELD TO MAINTAIN

EDIT

STOP


SELECT LOCATION

ROUTE ID

LATITUDE

LONGITUDE

SUBMIT



2.2.3.4 R001: Print Schedule

Step1: Below trip table, user clicks 'Export as PDF'

[illegible]

EXPORT AS PDF

Step 1: Click on the file in the list below. The file will be downloaded and can be downloaded and printed.

Campus GO King's Beach Schedule.pdf - Foxit Reader

File Home Comment View Form Protect Connect Share Help Extras Find

Hand Select Snapshot Clipboard Actual Size Fit Page Fit Width Rotate Left Rotate Right Fit Visible Typewriter Highlight From File PDF Sign Links Insert

Tools View Comment Create Protect Links Insert

6 St. George's to St. David's
Via Clearwater Beach

7 Hamilton to Dockyard
Via South Shore Beaches, Lighthouse and Somerset

8 Hamilton to Barnes Corner
Via Middle Road and Waterloo Inn

8 Hamilton to Dockyard
Via Middle Road, Waterloo Inn and National of Bermuda

MONDAY TO FRIDAY

LEAVES HAMILTON	LEAVES BARNES CORNER	LEAVES DOCKYARD	LEAVES DOCKYARD
7:05 AM	10:05 AM	7:05 AM	10:05 AM
10:45 AM	1:05 PM	10:45 AM	1:05 PM
1:45 PM	2:10 PM	1:45 PM	2:10 PM
2:45 PM	3:10 PM	2:45 PM	3:10 PM
3:45 PM	4:10 PM	3:45 PM	4:10 PM
4:45 PM	5:10 PM	4:45 PM	5:10 PM
5:45 PM	6:10 PM	5:45 PM	6:10 PM
6:45 PM	7:10 PM	6:45 PM	7:10 PM
7:45 PM	8:10 PM	7:45 PM	8:10 PM
8:45 PM	9:10 PM	8:45 PM	9:10 PM

AVERAGE RUNNING TIMES (IN MINUTES):

ST. GEORGE'S TO:
Southside Gate 1 15
St. David's 25

ST. DAVID'S TO:
Southside Gate 1 15
St. George's 25

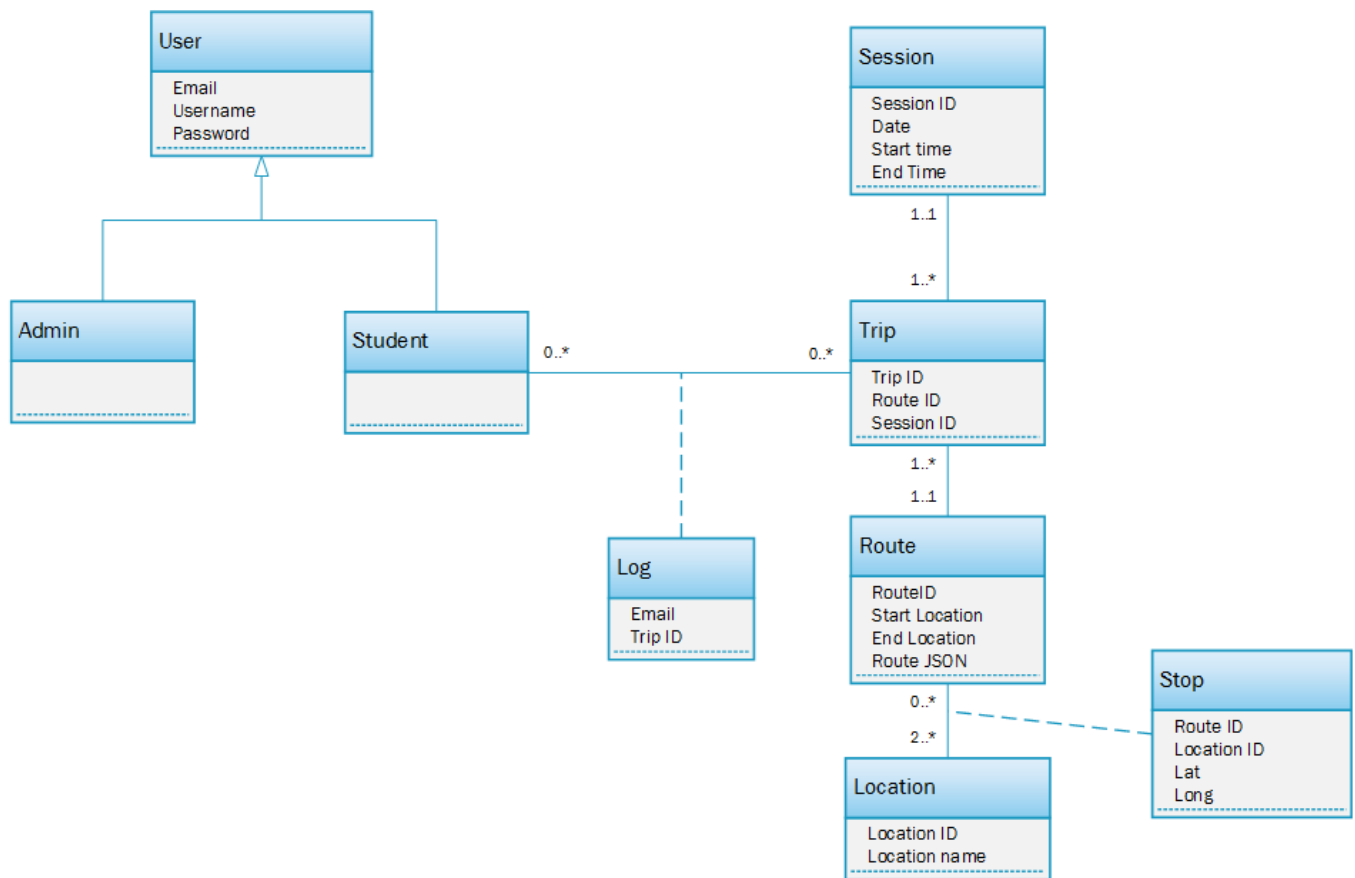
NOTES: All trips enter St. David's via Southside Road and exit via St. David's Highway, and provide service to Clearwater Beach. (M) = Southside, (W) = Main Road (St. David's).

MONDAY TO FRIDAY

LEAVES HAMILTON	LEAVES DOCKYARD	LEAVES DOCKYARD	LEAVES DOCKYARD
7:00 AM	6:55 AM	8:00 AM	7:00 AM
8:00 AM	7:55 AM	9:00 AM	8:00 AM
9:00 AM	8:50 AM	10:00 AM	9:00 AM
10:00 AM	9:50 AM	11:00 AM	10:00 AM
11:00 AM	10:50 AM	12:00 PM	11:00 AM
12:00 PM	11:50 AM	1:00 PM	12:00 PM
1:00 PM	12:50 PM	2:00 PM	1:00 PM
2:00 PM	1:50 PM	3:00 PM	2:00 PM
3:00 PM	2:50 PM	4:00 PM	3:00 PM
4:00 PM	3:50 PM	5:00 PM	4:00 PM
5:00 PM	4:50 PM	6:00 PM	5:00 PM
6:00 PM	5:50 PM	7:00 PM	6:00 PM
7:00 PM	6:50 PM	8:00 PM	7:00 PM
8:00 PM	7:50 PM	9:00 PM	8:00 PM
9:00 PM	8:50 PM	10:00 PM	9:00 PM
10:00 PM	9:50 PM	11:00 PM	10:00 PM
11:00 PM	10:50 PM	12:00 PM	11:00 PM
12:00 PM	11:50 PM	1:00 PM	12:00 PM
1:00 PM	12:50 PM	2:00 PM	1:00 PM
2:00 PM	1:50 PM	3:00 PM	2:00 PM
3:00 PM	2:50 PM	4:00 PM	3:00 PM
4:00 PM	3:50 PM	5:00 PM	4:00 PM
5:00 PM	4:50 PM	6:00 PM	5:00 PM
6:00 PM	5:50 PM	7:00 PM	6:00 PM
7:00 PM	6:50 PM	8:00 PM	7:00 PM
8:00 PM	7:50 PM	9:00 PM	8:00 PM
9:00 PM	8:50 PM	10:00 PM	9:00 PM
10:00 PM	9:50 PM	11:00 PM	10:00 PM
11:00 PM	10:50 PM	12:00 PM	11:00 PM
12:00 PM	11:50 PM	1:00 PM	12:00 PM
1:00 PM	12:50 PM	2:00 PM	1:00 PM
2:00 PM	1:50 PM	3:00 PM	2:00 PM
3:00 PM	2:50 PM	4:00 PM	3:00 PM
4:00 PM	3:50 PM	5:00 PM	4:00 PM
5:00 PM	4:50 PM	6:00 PM	5:00 PM
6:00 PM	5:50 PM	7:00 PM	6:00 PM
7:00 PM	6:50 PM	8:00 PM	7:00 PM
8:00 PM	7:50 PM	9:00 PM	8:00 PM
9:00 PM	8:50 PM	10:00 PM	9:00 PM
10:00 PM	9:50 PM	11:00 PM	10:00 PM
11:00 PM	10:50 PM	12:00 PM	11:00 PM
12:00 PM	11:50 PM	1:00 PM	12:00 PM
1:00 PM	12:50 PM	2:00 PM	1:00 PM
2:00 PM	1:50 PM	3:00 PM	2:00 PM
3:00 PM	2:50 PM	4:00 PM	3:00 PM
4:00 PM	3:50 PM	5:00 PM	4:00 PM
5:00 PM	4:50 PM	6:00 PM	5:00 PM
6:00 PM	5:50 PM	7:00 PM	6:00 PM
7:00 PM	6:50 PM	8:00 PM	7:00 PM
8:00 PM	7:50 PM	9:00 PM	8:00 PM
9:00 PM	8:50 PM	10:00 PM	9:00 PM
10:00 PM	9:50 PM	11:00 PM	10:00 PM
11:00 PM	10:50 PM	12:00 PM	11:00 PM
12:00 PM	11:50 PM	1:00 PM	12:00 PM
1:00 PM	12:50 PM	2:00 PM	1:00 PM
2:00 PM	1:50 PM	3:00 PM	2:00 PM
3:00 PM	2:50 PM	4:00 PM	3:00 PM
4:00 PM	3:50 PM	5:00 PM	4:00 PM

3 DATA REQUIREMENTS

3.1 Domain Class Diagram



3.2 Implementation Ready Class Diagram

