UP Bike Share – Android App
Use Case Diagram

Submitted to:

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Unique Reference:

The documents are stored in:
 https://github.com/devsofup/UPBike-Share-Android/tree/master/01-Project-Documents

Document Purpose:

This document serves to explain the basic entities and functionalities that will be present in the project. It will guide the developers for the rest of the design process in making sure that a certain structure is kept. It also serves as an explanation for the nature and environment of the application.

Target Audience:

This document is mainly for the viewing of the client and the development team. It will also be viewed by the guiding faculty. Possible users may also view this document for an idea of how the application will work.
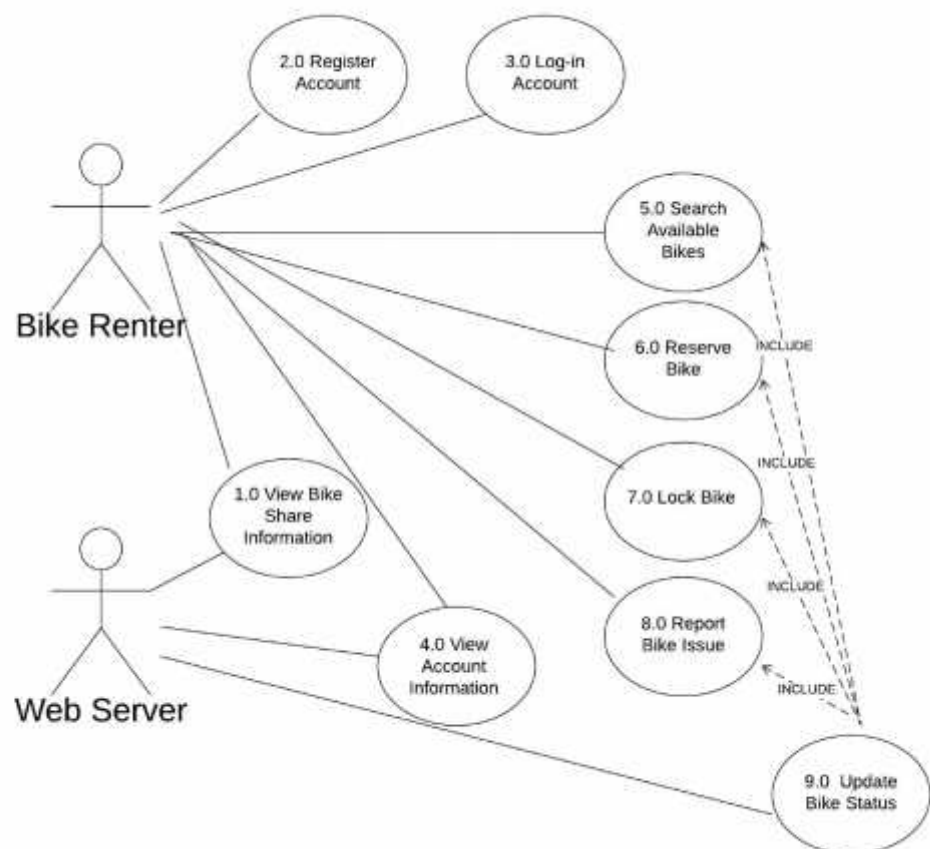
Revision Control

History Revision:

Revision Date	Person Responsible	Version Number	Modification
09/16/15	Jaypee San Gabriel	0.5	Placed descriptions of the actors and use cases.
09/18/15	Steven Barrozo	1.0	Complete rough draft. Created use-case diagram.

System Name: Bike Sharing System

Description: This system encompasses the general procedure that the user would take in order to achieve the objective of borrowing a bike for travel within UP. As users are registered, there is first of all a log-in system. Once a user is logged in, he can locate a bike, rent it for use, and lock it in a safe location when he is not using it. There are also other functionalities such as being able to view account details, change a forgotten PIN, and report issues with bikes.

Use-Case Diagram:

List of Actors:

Actors	Description
Bike Renter	The bike renters are the core users of the Bike Share module. They are composed of students of UP Diliman. With a registered account, they can use the Bike Share module to input requests for bike locations, or rent bikes, and lock bikes.
Web Server	The web server is tasked with processing overall data such as input from users when they log in, try to locate nearby bikes, rent bikes and lock bikes or automatic input from bikes such as the bike's location or time left of the current user's rent. It is the web server that handles the synchronization of data so that the users of the Bike Share module will always be presented with accurate data. In general, the web server will be the source of the module's output.

List of Use-cases:

Use-Case	Description
Use-Case 1.0 View Bike Share Information	The Bike Share module can provide users with different information. This includes a Content Page featuring all information about the Bike Share Project in general. The last one is an Announcement Page, featuring recent happenings for the Bike Share Project including short term, long term and recurring news.
Use-Case 2.0 Register Account	Anyone can register for an account and become a Bike Renter. They can also register for bike lessons. They will be given instructions on how to pay for the service of Bike Share.
Use-Case 3.0 Log-In Account	A Bike Renter who has registered an account can then log in the system using their username and password. Most other functionalities of the Bike Share module would require users to be logged in.
Use-Case 4.0 View Information in Account	While logged in, a user can view his/her current account details so that he/she can take note of the current status of his/her account. This includes a Bike Use History, which shows the previous bikes used, when they were used, and all relevant transactions. There is also a dynamic Newsfeed showing which bikes have been reported as having issues.
Use-Case 5.0 Search Available Bikes	Using data from the Web Server, the system can produce a list of nearby bikes and their location should a user request it. The number of available bikes per station will be shown.
Use-Case 6.0 Reserve Bike	If a user of the Bike Share module has chosen a bike it can use, it can send data to the Web Server telling it that it is renting the said bike for use. The bike is to be claimed within 30 minutes. The designated bike number will be shown.
Use-Case 7.0 Lock Bike	After a user has rented a bike and reached a destination, he/she can lock the bike at a safe location. This will be done through the Bike Share module, allowing the Web Server to update its data.

Use-Case	Description
Use-Case 8.0 Report Bike Issue	While logged in, a user can report any issues encountered with a reserved bike. Bikes reported such will be automatically locked once returned to a station. These bikes will be marked 'Under Investigation' while not yet checked, then be labeled 'Invalid' if a problem is confirmed.
Use-Case 9.0 Update Bike Status	The Web Server is tasked with updating the statuses of bikes such as their location, whether they are locked or not, the user that is renting it (if applicable), their ID and more. The Web Server updates the statuses of bikes whenever it processes a request from a bike renter such as locating bikes, renting bikes and locking bikes.