

UP Bike Share – Android App

Use Case Specification

Submitted to:

Prof. Ma. Rowena C. Solamo
Faculty Member
Department of Computer Science
College of Engineering
University of the Philippines, Diliman

Submitted by:
Barrozo, Steven
Mamac, Mark Anton
San Gabriel, Jaypee Renz

In partial fulfillment of Academic Requirements
for the course
CS 191 Software Engineering I
of the
1st Semester, AY 2015-2016

Unique Reference:

The documents are stored in:

<https://github.com/devsofup/UPBike-Share-Android/tree/master/02-Requirements-Engineering>

Document Purpose:

This document serves to detail the structure of the Bike Share project's main functionalities or use cases and how they work, without too much detail on the software implementation. This will serve as the agreement between the client and the developers as to how each of the functionalities will work. This will also guide the developers as to what are the most important aspects 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.

Revision Control*History Revision:*

Revision Date	Person Responsible	Version Number	Modification
09/17/15	Jaypee San Gabriel	0.5	Placed description, preconditions, postconditions, relationships and special requirements for each use case.
09/18/15	Jaypee San Gabriel Steven Barrozo	1.0	Complete rough draft. Created activity flow and activity diagrams for each use case.

Use-Case Name: Use-Case 5.0 Reserve Bike

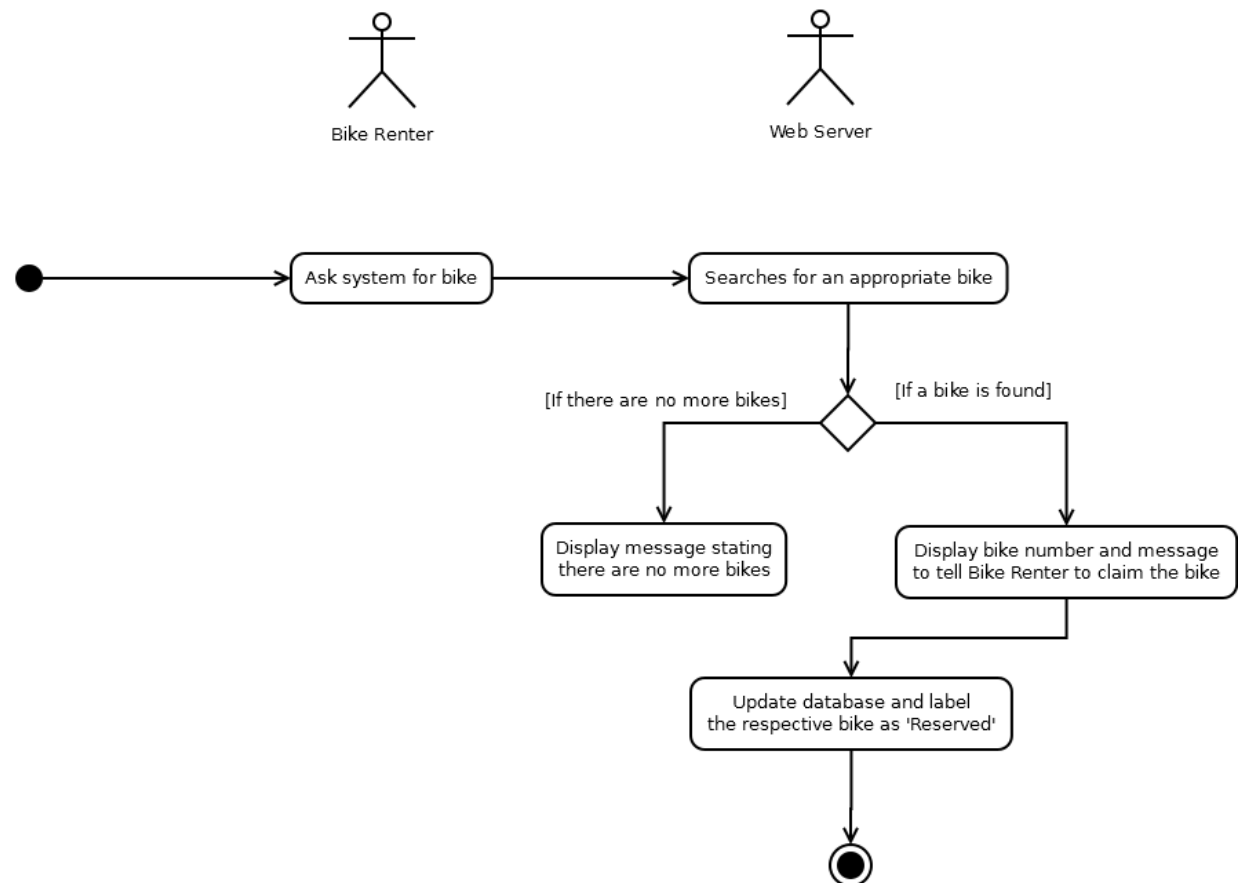
Description: If the Bike Renter has chosen a bike it can use, it can send data to the Web Server telling it that it is renting the said bike for use. The bike is to be claimed within 30 minutes. The designated bike number will be shown.

Preconditions: The Bike Renter is 'Logged In.'
There is a working connection with the Web Server.

Flow of Events:

Scenario Name	Description
Scenario 1 (Basic Flow) The Bike Renter reserves a bike.	<ol style="list-style-type: none">1. The Bike Renter asks the system for a bike.2. The Web Server chooses an appropriate bike based on location.3. The system displays the bike number and a message telling the Bike Renter to claim the said bike within 30 minutes.4. The Web Server updates the database, placing the respective bike as 'Reserved.'
Scenario 2 (No Bikes Available) The Bike Renter reserves a bike, but there are no more nearby bikes available.	<ol style="list-style-type: none">1. The Bike Renter asks the system for a bike.2. The Web Server chooses an appropriate bike based on location.3. If there are no longer any bikes available, the system displays a message stating that there are no more bikes.
Scenario 3 (Connection Error)	<ol style="list-style-type: none">1. If at any time in the basic flow, the connection with the Web Server is lost, the system will display a Connection Error, and log out the current user.

Activity Diagram of the Flow of Events:



Postcondition: The reserved bike will be marked as 'Reserved.'

Relationships: Upon using this use case, the Sync Data with Server use case will also be used in order for the bike data to still be accurate.

Special Requirements:

Physical devices for tracking associated with the bikes function properly.