

UP BikeShare Web Server Analysis Model

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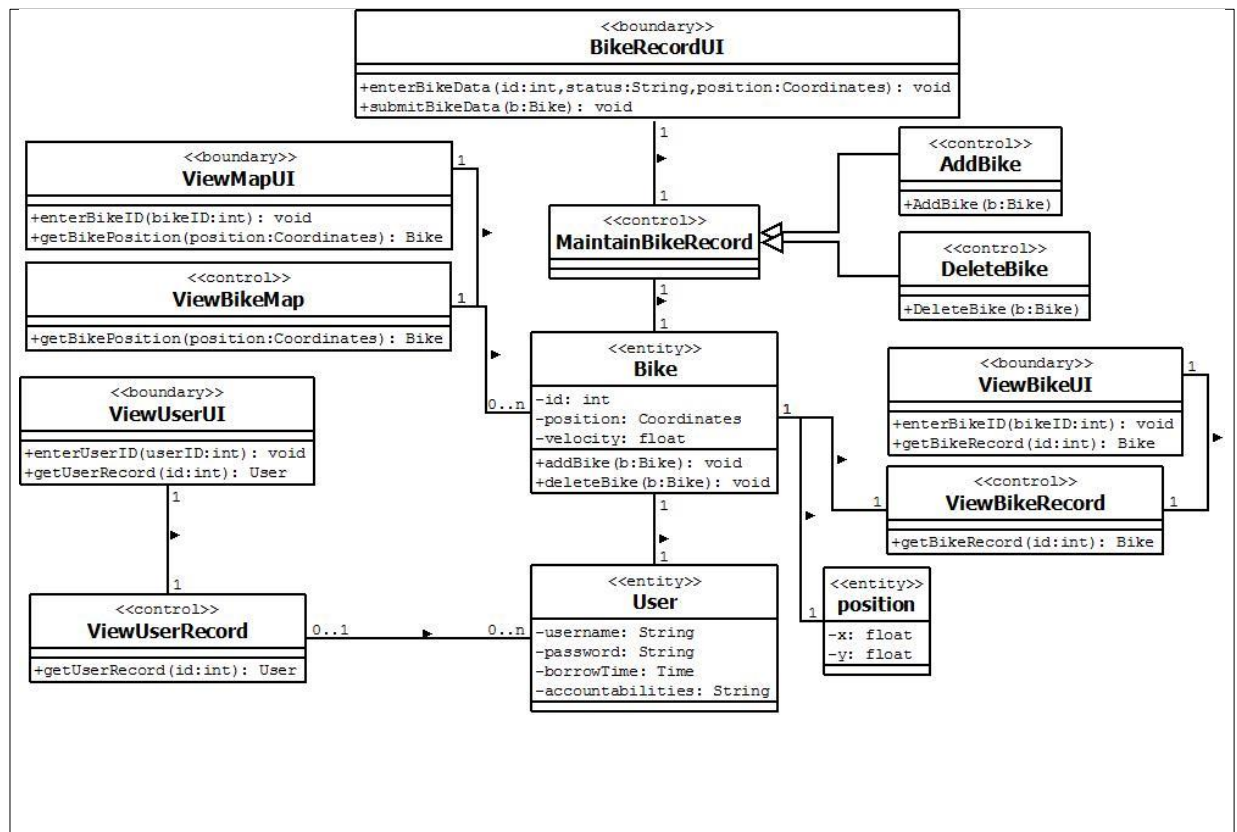
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In partial fulfillment of Academic Requirements
for the course
CS 191 Software Engineering I
of the
1st Semester, AY 2015-2016

Revision Control

History Revision:

<i>Revision Date</i>	<i>Person Responsible</i>	<i>Version Number</i>	<i>Modification</i>
10/29/15	Kirzten Marquez	1.0	Initial Document. Added analysis model and classes with corresponding descriptions.



System Name: UP BikeShare Web Server

Description: This project focuses on the back end of the UP BikeShare web application. It includes the majority of the main database interactions, administrative processes and commands, and overall analytics. It will have a simple interface prioritizing accessibility to functionalities and content over user aesthetics and the like.

Class Diagram:

Boundary Classes:

Class Name	Description
BikeRecordUI	Acts as an interface for the admin to add or delete a bike record.
ViewMapUI	Shows the location of the individual bikes in a map. The admin are able to track the bikes through here. Clicking on a bike's location shows more information about the bike.
ViewBikeUI	Shows information about a bike. Inputting a bike's ID would show its location and velocity.
ViewUserUI	Shows the users' profiles. From a list of users, an admin may choose one to see an individual profile that contains the user's basic info, borrow/rental times, and accountabilities.

Control Classes:

Class Name	Description
MaintainBikeRecord	Gives the admin access to the bikes' records and gives him the ability to add or remove them.
AddBike	Additional bike records can be added by the admin depending on user demands or after a bike has been fixed. Bike data would be collected from the bike modules.
DeleteBike	The admin can delete a bike record once a bike is no longer functional or is being repaired.
ViewBikeMap	Allows the admin to track where individual bikes are located. This is used to check when a bike is reported to be lost or to determine the demand of bikes in a certain place.
ViewBikeRecord	An admin may view a bike's specifications and be able to see any problems with concerning a bike.
ViewUserRecord	An admin may view any of the users' records including their profiles and all of their transactions made.

Entity Classes:

Class Name	Description
Bike	The center of the project. Most system functions would operate on the bikes.
Position	Contains the x- and y-coordinates of a bike that would be used to plot a bike's location onto the map.
User	Can borrow bikes and would interact with the admin when transactions are made or reports are made.