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Description: Go-Bike is a GPS, health and exercise statistics tool for cyclists. It is intended to be run as a mobile application with a bicycle mount for the mobile device. Go Bike can be used to plan bike routes and track progress along the routes on a map. It records relevant data (distance travelled, distance remaining, speed, RPM, time, heart-rate, BPM, calories burned etc….) so that users can have their exercise and/or bike ride visualized.

User Analysis: Age 15-50, athletic, with varying levels of health-consciousness. Moderate exposure to technology, and likely touch-screen devices. Owns a smartphone capable of running the application. Possible experience with health-statistics (e.g. heart-rate).

Task Analysis:

	User	Admin	System
Enter Start	Provides location		Searches for GPS
Enter Finish	Provides location		Searches for GPS
Generate route		Load bike map	Uses start/finish and map of bike routes to generate route
Collect Data			Uses GPS to collect necessary data

Generate Statistics		Develop and set system's statistics calculations	Uses GPS data and calculations to develop statistics
Select Statistics	Selects which statistics to include in the display, if any.		
Display Route			Use GPS to display user on route
Display Statistics			Use selection data to display appropriate statistics above route map
Cancel Route	Choose "cancel"		

Functionality and Usage Scenarios:

1) Select Stats: A user can select which statistics to include in a news-style ticker. Before planning a route, users may read through a list of statistics and their descriptions. By touching a checkbox, the user can select a particular statistic to see during their bike ride.

2) Create Route: A user will enter "Start" and "Finish" destinations. The system will use a bike map to generate a route from start to finish, and returns the route for the user to view and either follow or abandon.

3) Follow Route: After Create-Route returns a route, the user can choose to "follow" or "abandon" the route. Abandon returns the user to the main page and destroys start and finish. Choosing to follow will initiate a GPS display of the user along the route. The statistics that the user selected will appear in a news-style ticker above the GPS map. The user can choose to abandon the route at any by touching a small button on the screen.

Conceptual Model:

Objects:	"Start"	"Finish"	"Route"	"Statistic"	"Stat-List"
Object Attributes:	Name, GPS Location	Name, GPS Location	Start, Finish, instructions	Name, description, function, Is-selected	Number of selected Statistics
Object Relationships:	Start belongs to a "Route"	Finish belongs to a "Route"	A route has a "Start" and "Finish". The instructions go from the Start to Finish	A Statistic may or may not belong to "Stat-List"	A Stat-List is a collection of "Statistics"
Actions on Objects:	Create, destroy	Create, destroy	Create, Follow, Abandon	Select to include in list	None

Actions on Object Attributes:	Set Name, Set GPS Location	Set Name, Set GPS Location	Set start, Set finish	Set is-selected	None
Actions on Object Relationships:	None	None	None	Add a Statistic to "Stat-List"	Remove a Statistic from "Stat-List"