EECS 448 – Team 14

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Design Paradigm of our Project

We chose function-oriented design with a small component of object-oriented design to create the prototype of MapKU. Function-oriented design was an appropriate approach because a function-oriented design has a centralized system state and is shared among different functions, the map on our web app is the centralized system state. This centralized system state (the map) calls functions whenever the user interacts with the map. We used Google Maps API and the resources it had allowed us to interact on a map. The map has defined functions at the high level and whenever there is interaction then it proceeds to the lower level of the function hierarchy.  The functionality of the web app is to allow users to find buildings and route to it from building to building. The structure of our program is then broken down into steps. The Google Maps API has functions to call on the map that allow us to add markers, search for buildings, and add a direction service on the map class that can route between multiple points on the map which allows us to implement the functionality of the web app. Regarding the small component of object-oriented design, we utilized classes such as the map, and a route class to store multiple routes. The map class was able to render the map itself and was able to call a direction service. It could also place markers and provide an information panel. The route class was created to store routes in a list if the user wanted multiple destinations.