**System Evolution**

**Fundamental Assumptions**

* The application is an Android mobile application
* The primary goal of the application is to allow the user to search for information about organisms and to display the observations of the organisms in the user’s area.
* The application will use the EOL database, the GBIF database, and the MediaWiki API to display information about organisms.
* The application will use the BISON API to display the observations of organisms using its map feature.
* The application will use a local database to store a user’s past searches as well as store map data for offline use.
* The application can use the user’s GPS location. The application will prompt the user if they will allow the application to use their location.

**Anticipated Changes**

* Scale the application to work on Android tablets
* If meshing data from multiple databases is difficult or slow, we will only use one database to retrieve species’ information and use the BISON API for the observation data.
* May need to create an AWS database for our application database if a local database will not meet our needs. Especially if we allow users to record their own observations and upload images of organisms.
* Allow users to record their own observations of organisms. The user can upload images and audio recordings to go along with the recorded observation.
* Allow users to upload an image of an unknown organism to seek identification from other users.
* Add image recognition to application. The user can upload an image to the application and the application would use Google’s Reverse Image API to identify the organism in the image.