4. PID04

Create a python project to map geographical data with Basemap Python Package. Perform the following task in the project.

    A. Installing matplotlib and Basemap

    B. Create a simple map of the world

    C. Add some more detail to this map, starting with country borders, country fill colour and clean up the edge of the globe

   D. Draw latitude and longitude lines

E. Change the latitude and longitude parameters in the original Basemap definition to 0 and -100.

F. Change the projection type of map
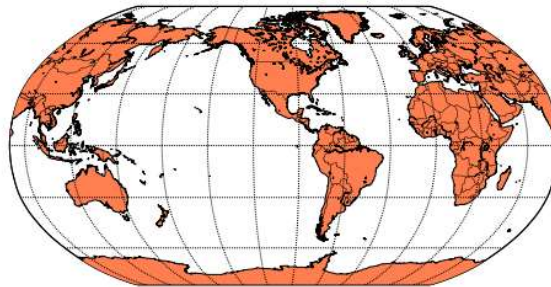
G. I live on Baranof Island in southeast Alaska, so zoom in on that region by using use a mercator projection. llcrnrlon = -136.25, llcrnrlat = 56.0

CLASS: II yr AIML   **Proposed Date: 06.10.2022**
SUBJECT: 20ALC33 - DATA VISUALIZATION   **Completion Date: 30.11.2022**
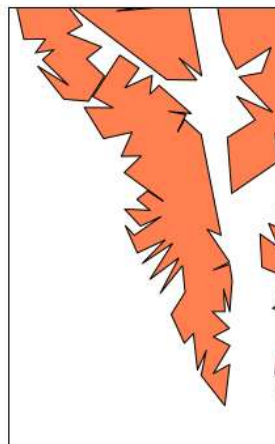
H. The map is pretty ugly and we are missing an entire island to the west of here. So change the resolution to high
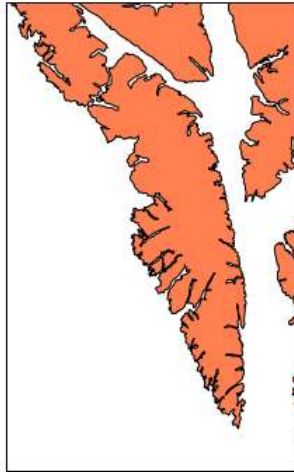
I. Still we are missing small island to west. So change the area_thresh setting to visualize the missing an island to the west
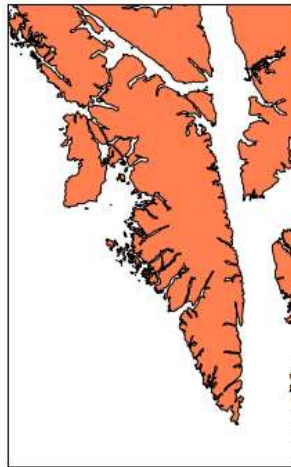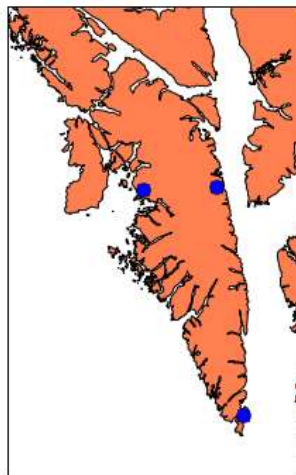
J. I live in Sitka, the largest community on Baranof Island, Add a point showing Sitka's location
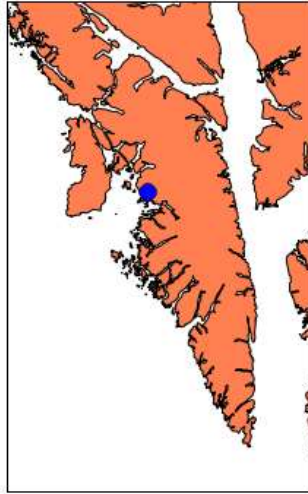
K. There are two other communities on Baranof Island, so show where those two communities are on this map. We store the latitudes and longitudes of our points in two separate lists, map those to x and y coordinates, and plot those points on the map

lons = [-135.3318, -134.8331, -134.6572]

lats = [57.0799, 57.0894, 56.2399]

L. Label these three points. Create a list of our labels, and loop through that list and include the x and y values for each point in this loop