**Iteration 2**

**Requirement**

determine which location contains a specified GPS point worldwide.

**Objectives**

**Create a bounding box class that contains a full polygon of points**

The class should store 2 Map coordinates that represent the northwest corner and the southeast corner. It should have a method to determine if a point is within the bounding box to be used to improve the performance of checking a list of locations

**Add a method to the LocationTrigger class to determine if a coordinate is within the coordinates**

The method should first check if the bounding box contains the point as this is much more efficient it should then check the polygon using a method that will work across the world including points that cross the date time line and the poles.

**Add a method to the LocationTriggerCollection class that will out a list of LocationTriggers at a point**

The method should generate a list that matches the generic used to create the object.

**Completion criteria**

1. The bounding box class accurately fits around a polygon on any part of the world.
2. The contains point method should accurately determine if a point is first within a bounding box then within the polygon, it should work for any size, number of points or position.
3. The new LocationTriggerCollection method should create a list efficiently enough to process lots of locations within 1 second or a phone processor