

Lab 9 – Tide Table: Geolocation

This lab will give you practice using geolocation APIs to get latitude and longitude and using the geocoder API to get the distance between two locations.

Requirements

Modify the Tide Table application to display tide information based on time and location provided by the mobile device. By default the app should show the tide information for the current time and location. If the data isn't already stored in the database, it should be downloaded automatically. The user will still have the option to use the spinner and date picker to view tide predictions for other times and locations as well.

Implementation

Use one of the two APIs below to get the current longitude and latitude of the device. Use the `Android.Location` API to find the distance between the device and each of the tide stations (this is why we stored the longitude and latitude of each tide station in the database). Select the nearest tide station and display its predictions for `DateTime.Now`.

Xamarin API Documentation for `Android.Location.DistanceTo`:

<https://docs.xamarin.com/api/member/Android.Locations.Location.DistanceTo/p/Android.Locations.Location>

Group A

Use the Xamarin Geolocator plug-in to get the current location.

Group B

Use the Fused Location Provider to get the current location.

Review and Submission

Zip the beta version of the solution (after removing the bin and obj folders) and e-mail it to your code-review partner. After getting a code review, revise your code and upload it to Moodle.