

Fish 360

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Project Description

This project is done under the supervision of Prof. Jose Annunziato as a research project for NOAA(National Oceanic and Atmospheric Administration). This website is targeted at real time users who go on fishing trips and gains to use the information provided by such users to gather statistics on fish population and their relation with the atmospheric climatic changes.

Earlier NOAA used to gather information for fishery departments around the world with respect to the fish capture from around seas/rivers around the world. They normally use this information to analyze the statistics of fish population and the effect climatic changes have on the fish population. This website complements this activity of NOAA by providing them data from real time fishermen who go on fishing trips and presents UI to Partner that aggregates this information for several users and provides various interactive charts that visualizes this information.

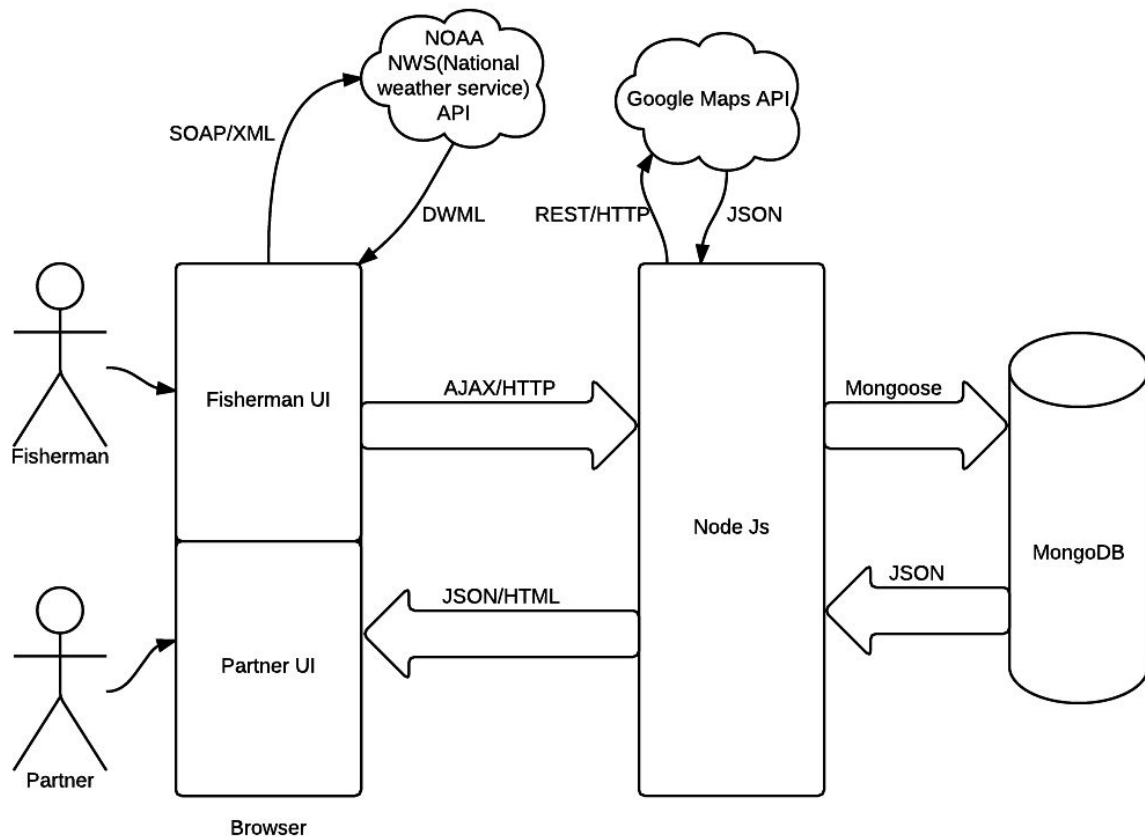
The fishermen also get information with respect to the statistics of fish capture by other fishermen in the network which is also shown in an interactive chart UI. These statistics give insights to the users as to what is the best time to capture fish, which are the best spots, what are the best gear that caught specific type of fish etc.

In this project, we make use of weather information API as well as Google Maps API. Weather information API gathers information with respect to the climatic conditions of the spot where the fishing trip is happening and auto completes information such as Water depth, Water temperature, Moonrise time etc as the user completes forms related to fish capture. Similarly the Google Maps API fetches the latitude longitude information based on the fishing spot and autocompletes the same while the user enters information in the form.

Actors

1. Fisherman - These actors are the ones who provide fishing related data which is used for analysis. They will also be able to view the statistics of fish capture in various angles using the fish capture information provided by other users in the network.
2. Partner - NOAA staff - The NOAA staff will be able to view overall statistics from the aggregated data published by the users in the network.

Architecture



Use Case Analysis

I. Fishermen

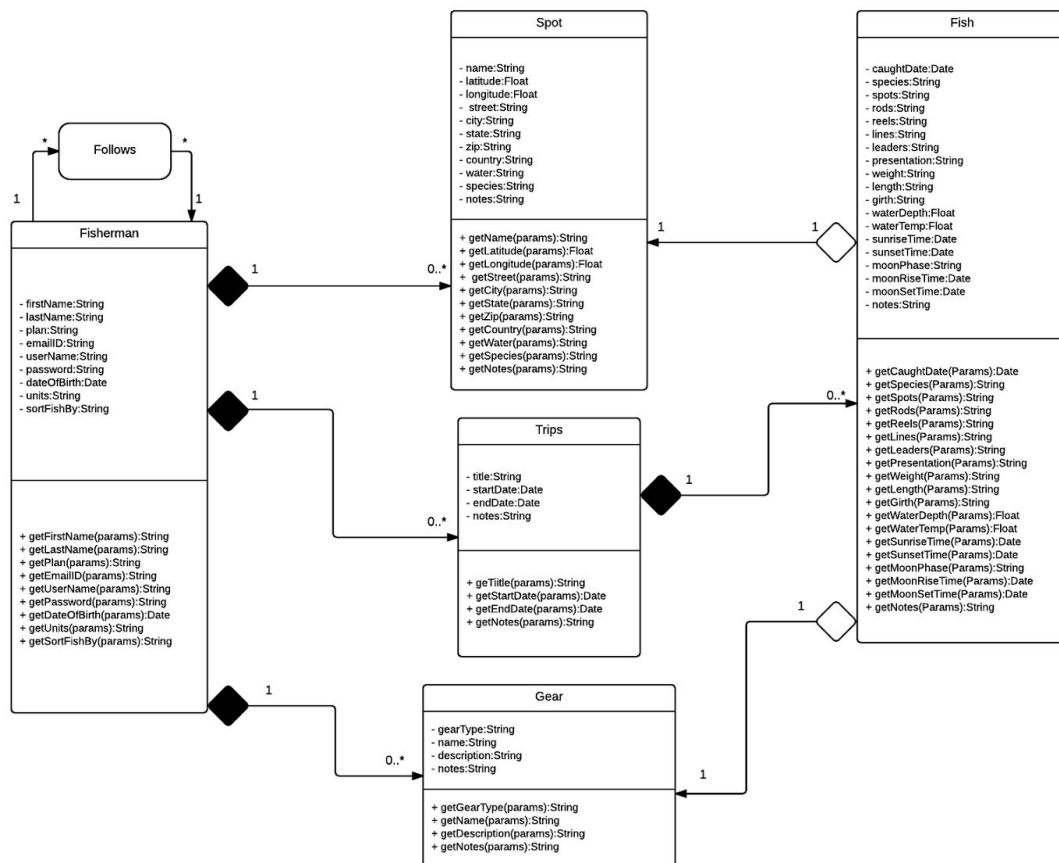
- Logs into the dashboard(Must be registered first).
- Creates a fishing trip.
- Adds fishing gear.
- Adds fishing spot.

- Adds details of the caught fishes into the fishing trip
- Able to view statistics of fish capture in Chart UI like number of fishes caught vs spot, No of fishes caught per gear etc.

II. Partner(NOAA staff)

- Logs into the dashboard(Must be registered first).
- Able to view interactive chart UI for various statistics on fish capture such as number of fishes caught vs spot etc.
- Provide information over API calls related to moonrise, moonset
- Provide information over API calls related to sunrise, sunset
- Provide information over API calls related to tides and sea weather conditions

UML Class Diagram



Wireframe

Link to moqups :

<https://moqups.com/vikas8190/0OiXhfgM>