

Tidal Tracker

From storms to gear rentals, 'Tidal Tracker' has you covered - the all-in-one mobile application for fishermen community facing adverse weather conditions, complete with digital compass navigation and top-quality equipment rentals."

~Bytecode

Idea Overview

Tidal Tracker

Theme: Marine and fisheries

Problem Statement:

Fishery is a traditional and important economic activity in India. The livelihood of those depending directly or indirectly on fisheries is adversely impacted by factors such as

- vagaries of weather and different types of disasters. As a result, they are forced to live their lives in danger.
- The changing weather conditions are hard for them to make preparations accordingly.
- Most fishermen may not catch many fish because they lack the equipments.

Main objective

To build a web application for fisherman community to make fishing simple, safe and easy.

Social Impact

- Providing a safe path for the anglers , lost in the sea to come back to the shore.
- Help to build them there own community.
- Rent the fishing equipment.
- Greater support for the fishing industry, by providing valuable resources and tools for fishermen.
- Better communication between fishermen and authorities This could help to improve coordination and response times in the event of an emergency

According to Indian Express

- There are more than 180,000 active traditional fishers in Kerala alone.
- Coastal households are highly dependent on fishing and daily sale of fish, and the bulk of fishing income goes towards covering daily household expenses, acquiring or servicing fishing gear, repaying debts.
- Available statistics suggest that 50% of fishing households remain below poverty line

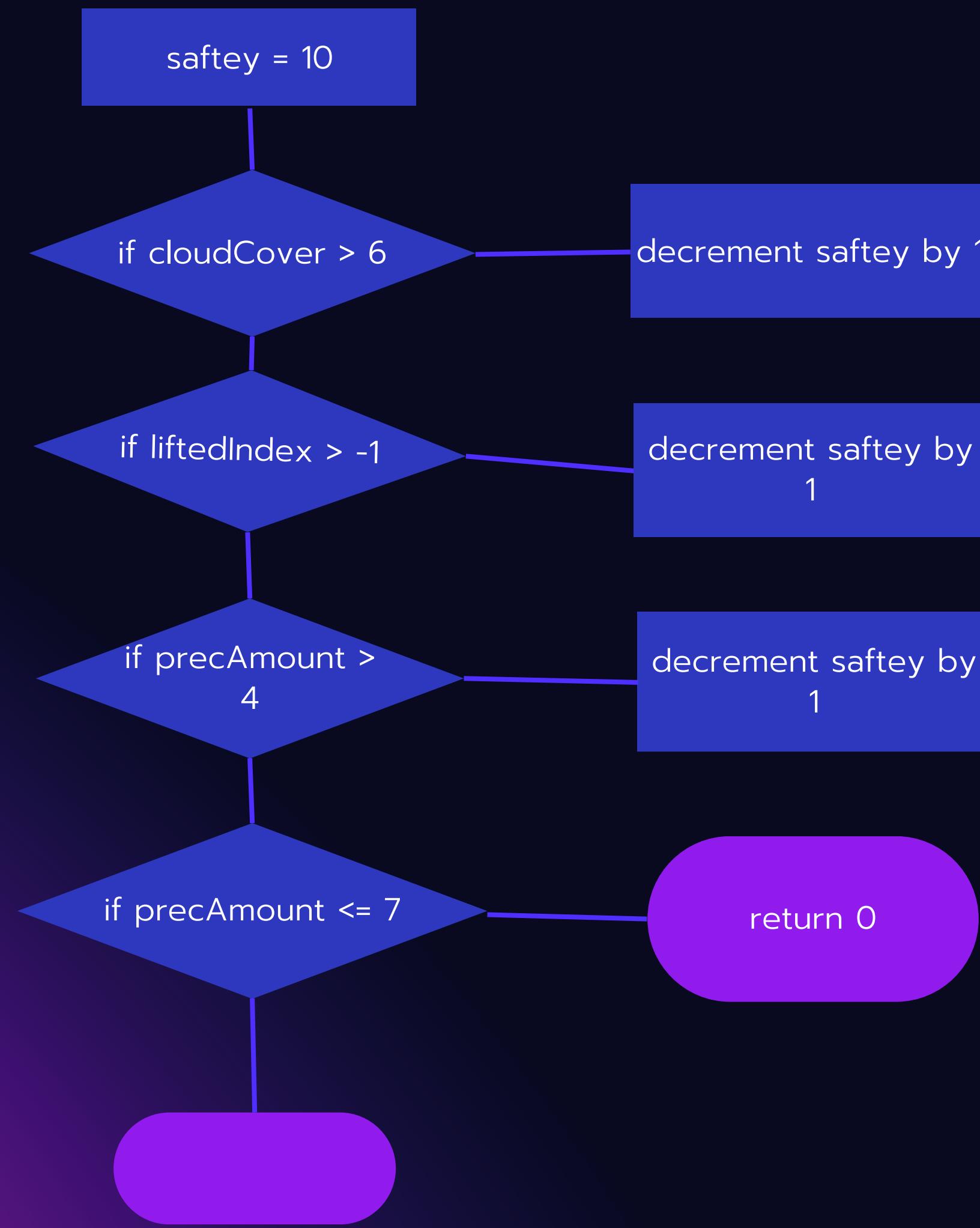
Source:

<https://www.newindianexpress.com/cities/thiruvananthapuram/2021/nov/11/scientific-methods-to-make-fishermens-lives-safer-2382000.html>

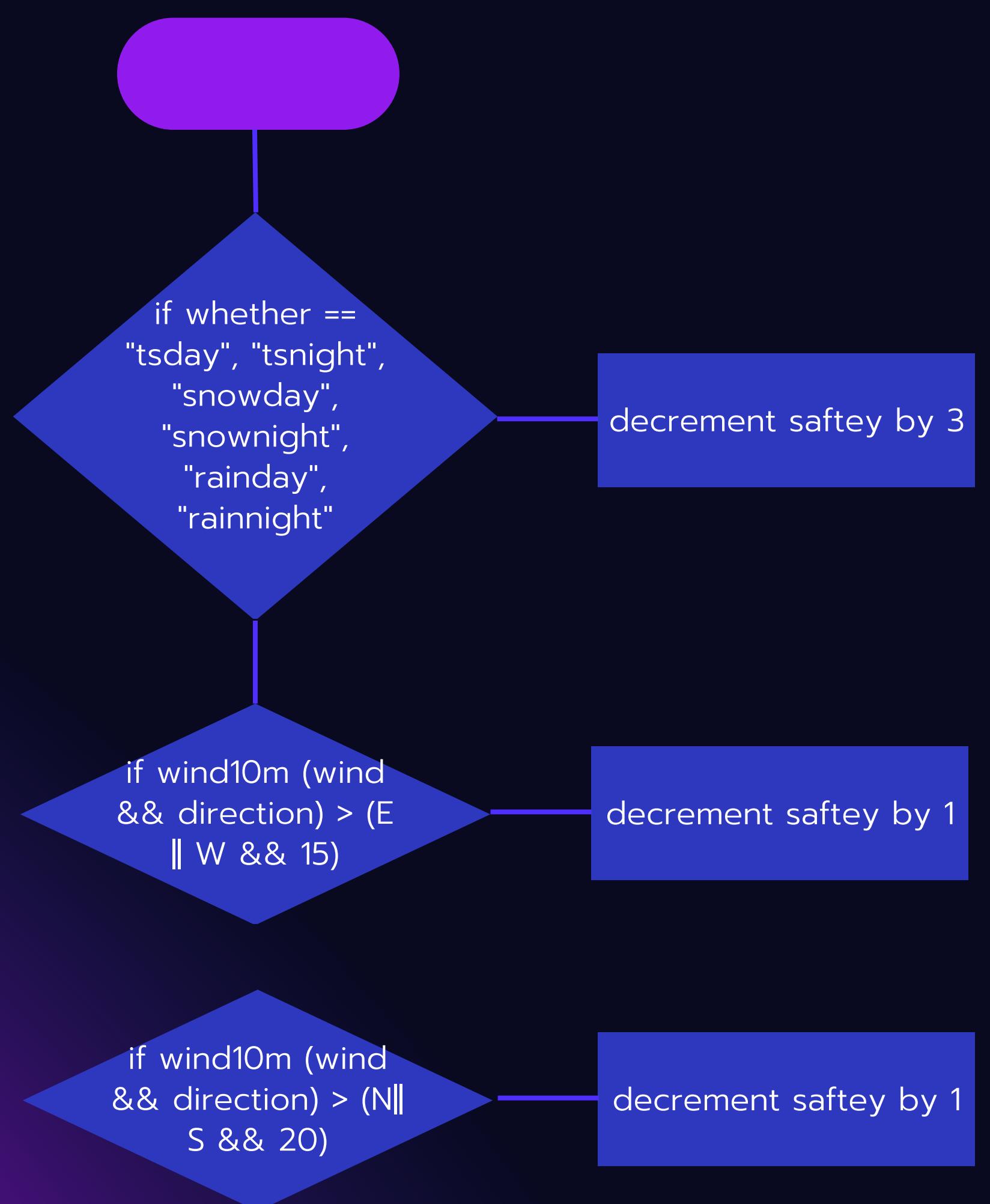
Features

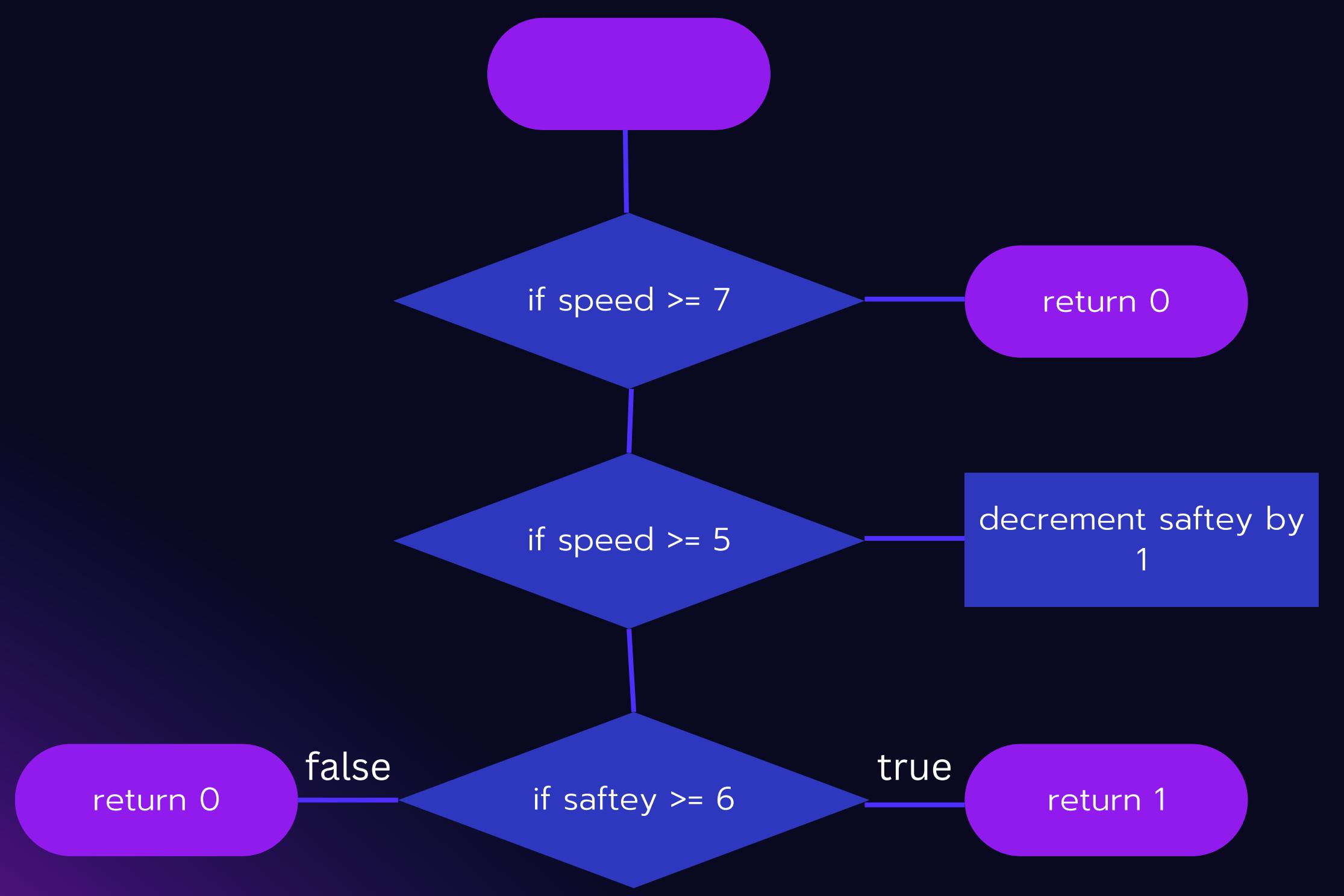
- Accurate Live Weather Details and alerting system, in case of any emergency
- Future Weather forecasting and determine whether safe to go.
- Our application can notify the nearby rescue boat and citizens of the fishermen's location and ask them to send help if needed.
- Exclusive chatting feature for fisherman to build there own community.
- A market place to rent top-quality equipments
- Provide Guidelines for Beginners and Amatures.
- A Safety Awarness quiz to engage the community

Algorithm

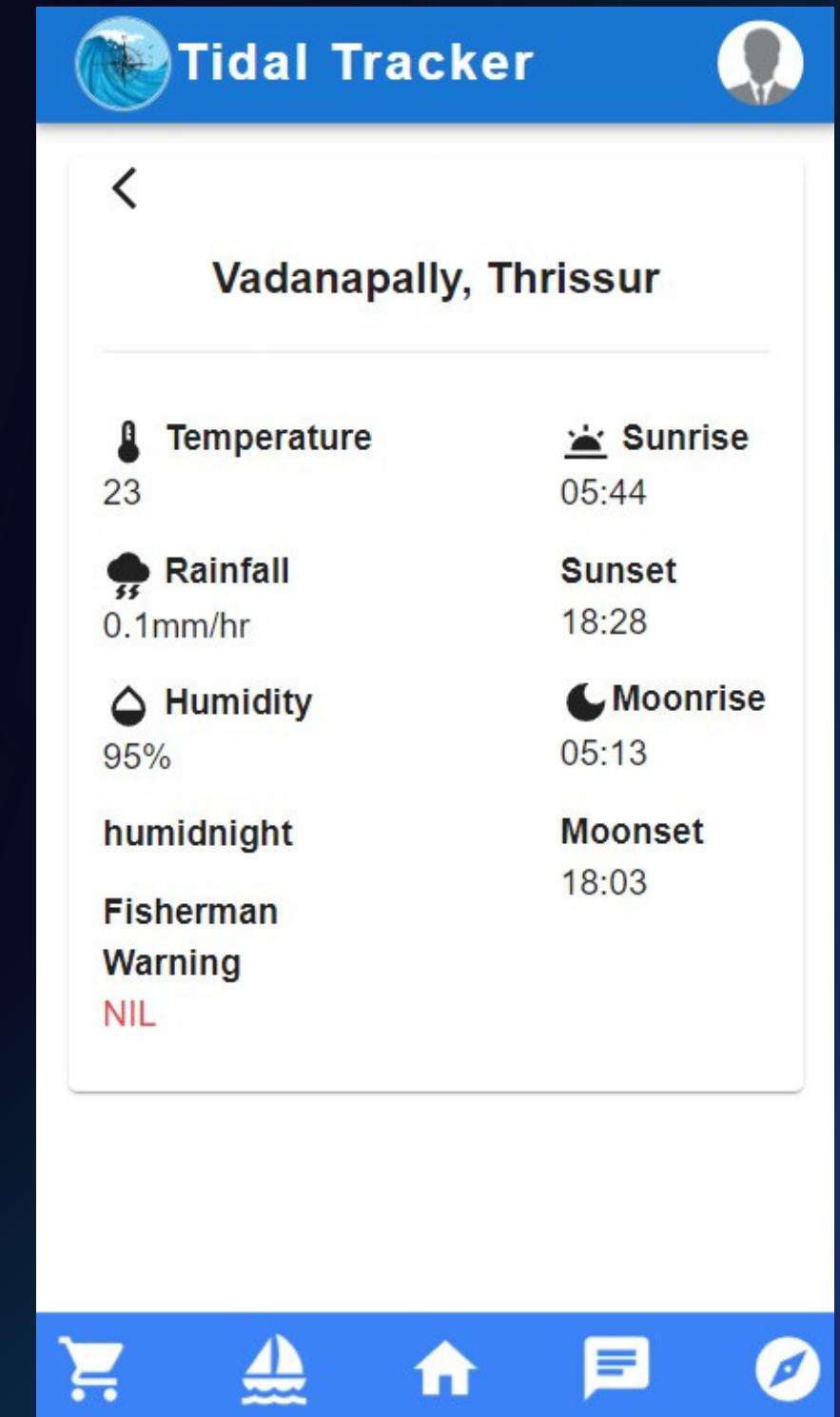
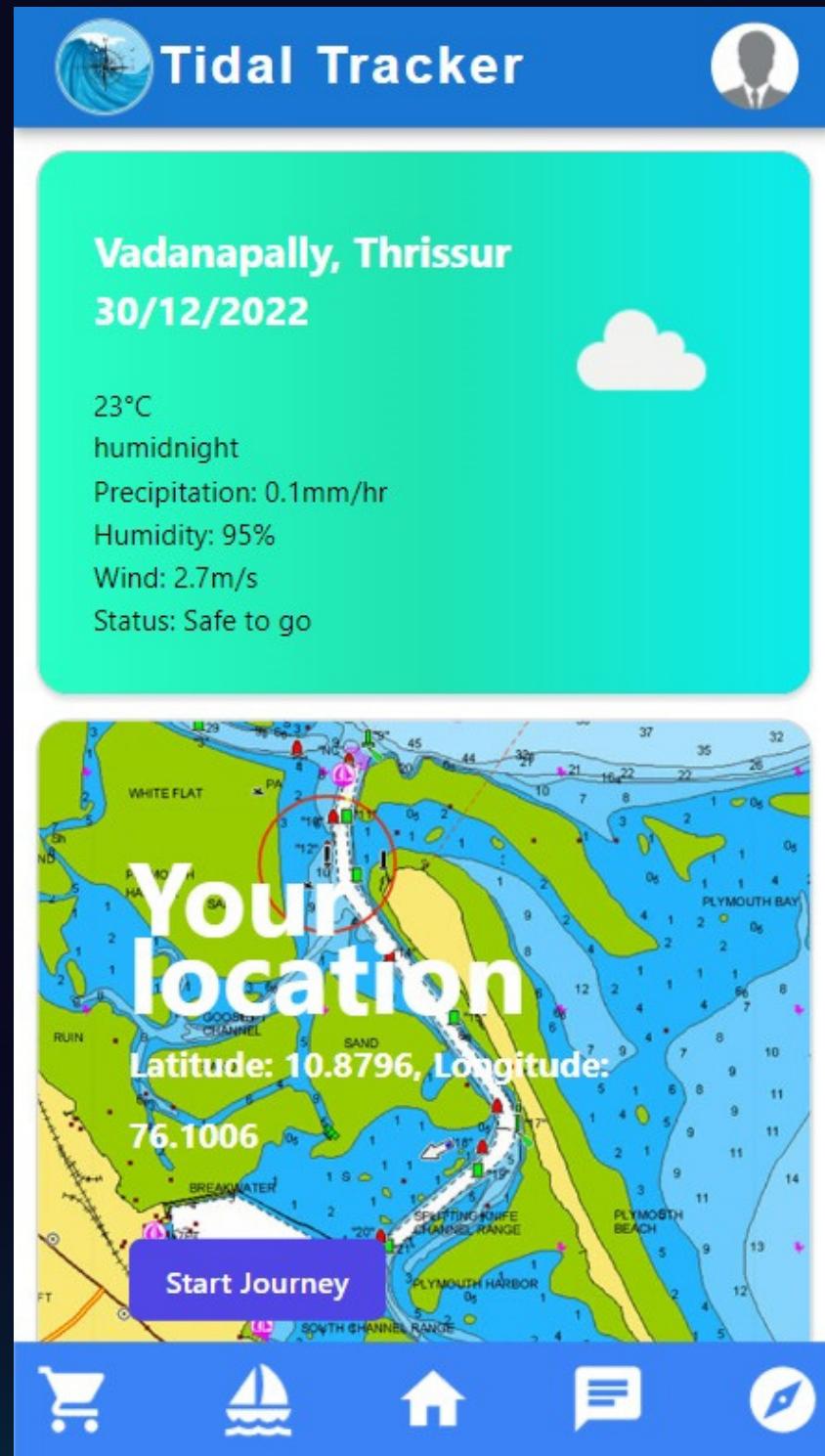




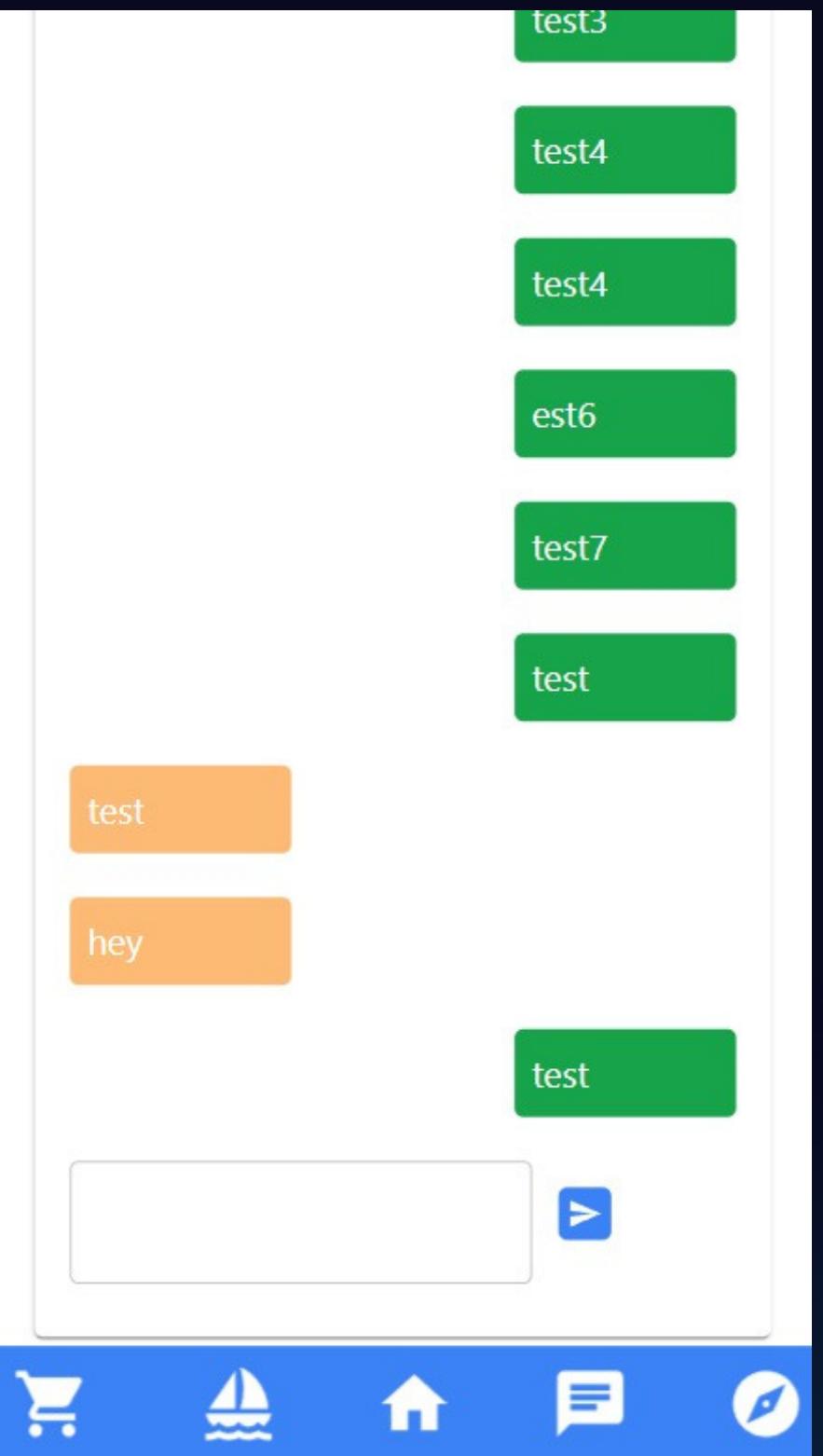
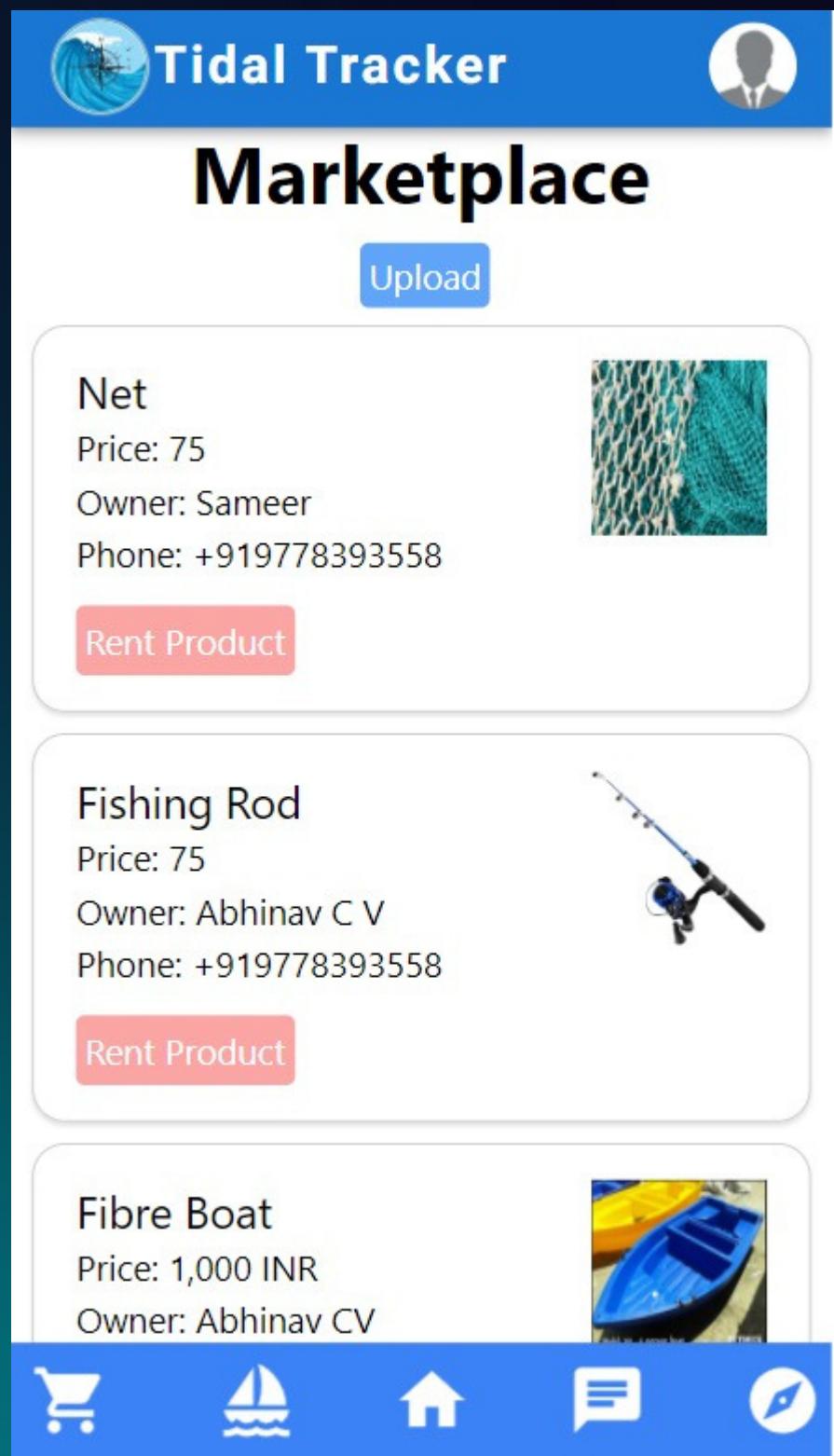




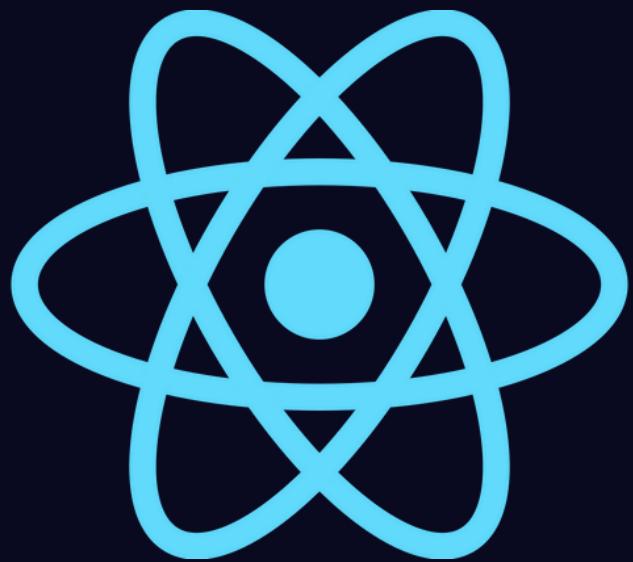
App Design



App Design



Tech Stack



React

Front-end of the PWA application

Reason : Good performance,
strong community support.



Firebase

For back-end

Reason : real - time database

API's



7Timer :

For weather forecasting

Reason : This API provide data with 7 parameter with future weather which is predicted by a machine learning model.



Gmaps :

For the maps and locations

Reason : easy to implement



Firebase:

For chat message and to store location, marketplace

Reason : safe and secure, easy of implement

Team Members

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Thank you