Q Data & Al

1. Real-time Fish Catch Prediction

Build an Al model to forecast fish catch volumes based on historical data, weather, and geolocation.

2. Fish Species Recognition Using Images

Create a mobile app that uses computer vision to identify fish species from images and provide species-specific insights.

3. Al-Based Illegal Fishing Detector

Design an AI system that detects possible illegal fishing activities using GPS and historical movement data.

4. Demand-Supply Forecasting Model

Develop a machine learning model that forecasts fish demand and supply in local markets based on consumption trends and catch reports.

5. Fish Stock Health Index Calculator

Build an ML model to assess fish stock sustainability using environmental and catch data.

Web & Mobile Apps

6. Geo-Tagged Fish Catch Logger App

Develop a mobile/web app for fishermen to log catches with species, weight, time, and GPS location.

7. Fish Market Price Tracker

Create a real-time dashboard of fish prices across regions and suggest the most profitable markets for fishermen.

8. Fishing Compliance Dashboard for Authorities

Build a web dashboard for regulatory bodies to track fishing activity, catch limits, and regulation compliance.

9. Community Marketplace for Fishermen

Create an e-commerce app where fishermen can directly sell their catches to consumers or restaurants.

10. Fishing Route Optimizer

Develop a navigation tool for fishermen that suggests optimized fishing zones based on past successful locations and sea conditions.

Cloud & IoT (don't use hardware, just design a flow diagram)

11. Smart Buoy System

Design an IoT system using buoys to collect real-time ocean parameters (temperature, salinity, turbidity) and send data to the cloud.

12. Cloud-Based Fisheries Data Lake

Build a scalable cloud architecture to ingest, store, and serve large-scale georeferenced fish catch data.

13. Offline-First Fish Logging App

Create a mobile app that works offline and syncs with the cloud when internet is available, tailored for remote coastal villages.

Sustainability & Environment

14. Eco-Fishing Score Calculator

Develop an app that calculates the environmental impact score of a fishing trip based on the gear used and species caught.

15. Overfishing Alert System

Build a real-time alert system that notifies authorities when overfishing thresholds are breached in specific zones.

16. Marine Pollution Monitoring App

Create an app where fishermen report plastic sightings or water quality issues, crowdsourcing pollution monitoring.

💡 Innovation & Social Impact

17. Fisherman Literacy Chatbot

Develop a multilingual voice/chatbot assistant to educate fishermen about fishing laws, safe practices, and weather alerts.

18. Blockchain for Catch Traceability

Build a blockchain-based solution to track fish from catch to plate, improving traceability and trust in the supply chain.

19. Disaster Response for Fishing Communities

Design a mobile app that alerts fishing communities about cyclones or tsunamis with evacuation routes and safety protocols.

20. Fish Donation Logistics App

Create a system where excess fish can be donated and distributed to food banks, minimizing waste.