F.I.S.H. - Fish Identification Search History

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Motivation

- AZGFD are challenged with collecting a high volume of data from fisheries
- Currently, scientists have to go out 3-4 times a year to collect data with specialized tools
- Current data collection method is inefficient
- Data is crucial to monitoring fish populations in Lees Ferry Fishery

Key Features and Architecture

- Cross-platform mobile application
- Locally cached database that is accessible offline
- Sync capabilities to keep global database updated
- Bluetooth feature to transfer ID from PIT scanner to phone
- Intuitive GUI
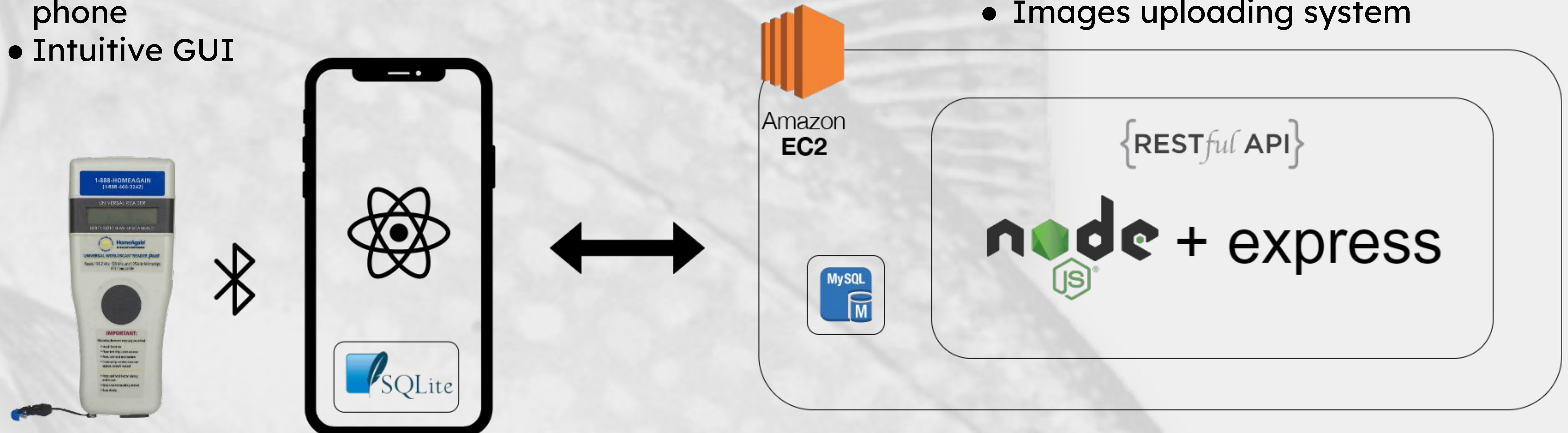
Future Work

- Implement a Gamification system for catches
- Include more fisheries
- Compatibility with more scanners
- Images uploading system

Solution Overview

Angler syncs while online

Enter PIT Tag

Click Enter

9891031615531

Enter

Displays current data for fish

View all data for that fish or create new entry for your current catch

View Data

Tag Number
9891031615531

Species
Rainbow Trout

Last Caught
3/9/2021, 5:00:00 PM MST

Last River Mile
-6.04

Last Recorded Length
1 ft 1 in

Update Data →

Update

New Length
ft   in

River Mile
Enter River Mile

Current Timestamp
4/9/2023, 5:36:10 PM MST

Confirm Updates

Angler enters length and river mile for current catch

Confirm new information

Open recent catch history to view all catches for a session

Click sync on home page to send new catches to server

Recent Catches

PIT: 9891031615531 — Length: 1 ft 1 in; Species: Rainbow Trout; Date: 4/9/2023, 5:37:32 PM; Mile: -3

PIT: 9891031615652 — Length: 1 ft 4 in; Species: Largemouth Bass; Date: 4/9/2023, 5:38:23 PM; Mile: -1

PIT: 9891031614245 — Length: 0 ft 4 in; Species: Rainbow Trout; Date: 4/9/2023, 5:39:08 PM; Mile: 2

PIT: 9891031618395 — Length: 1 ft 1 in; Species: Bluegill; Date: 4/9/2023, 5:40:51 PM; Mile: -2

PIT: 9891031615432 — Length: 0 ft 3 in; Species: Bluegill; Date: 4/9/2023, 5:41:05 PM; Mile: 2

PIT: 9891031618491 — Length: 1 ft 12 in; Species: Smallmouth Bass; Date: 4/9/2023, 5:41:41 PM; Mile: -6