To: Katrina Ward

From: Fish Locale

Subject: Revised Problem Statement

Date: December 4, 2016

**Original Problem Statement**

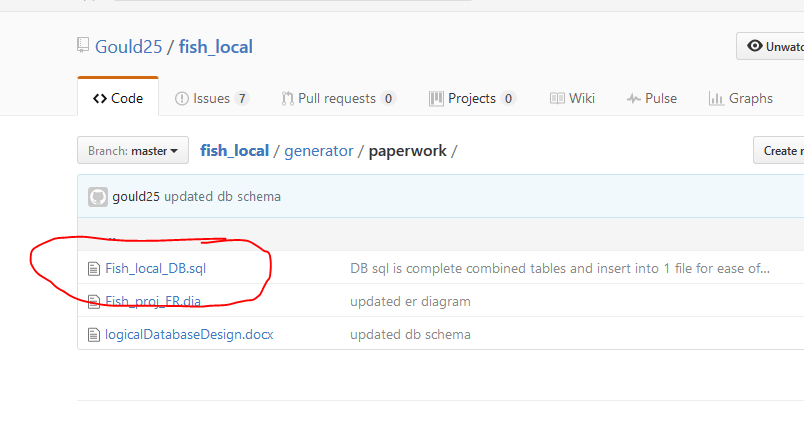
The purpose of this application is to catalog fishing at bodies of water in the state of Missouri. It is designed to catalog what kinds of fish can be caught at a given body of water and what kind of bait, rod and reel is best to be used for catching a certain species of fish at a given body of water. The application will store the latitude and longitude coordinates, name of the body of water, and other related information is outlined in the ER diagram. Additionally, the application will store information about the legal implications of catching a certain type of fish at a given body of water. Cataloging all this information and presenting it in an intuitive consumable way to the end user makes a database an essential component, as without one this endeavor will be futile.

**Final Problem Statement**

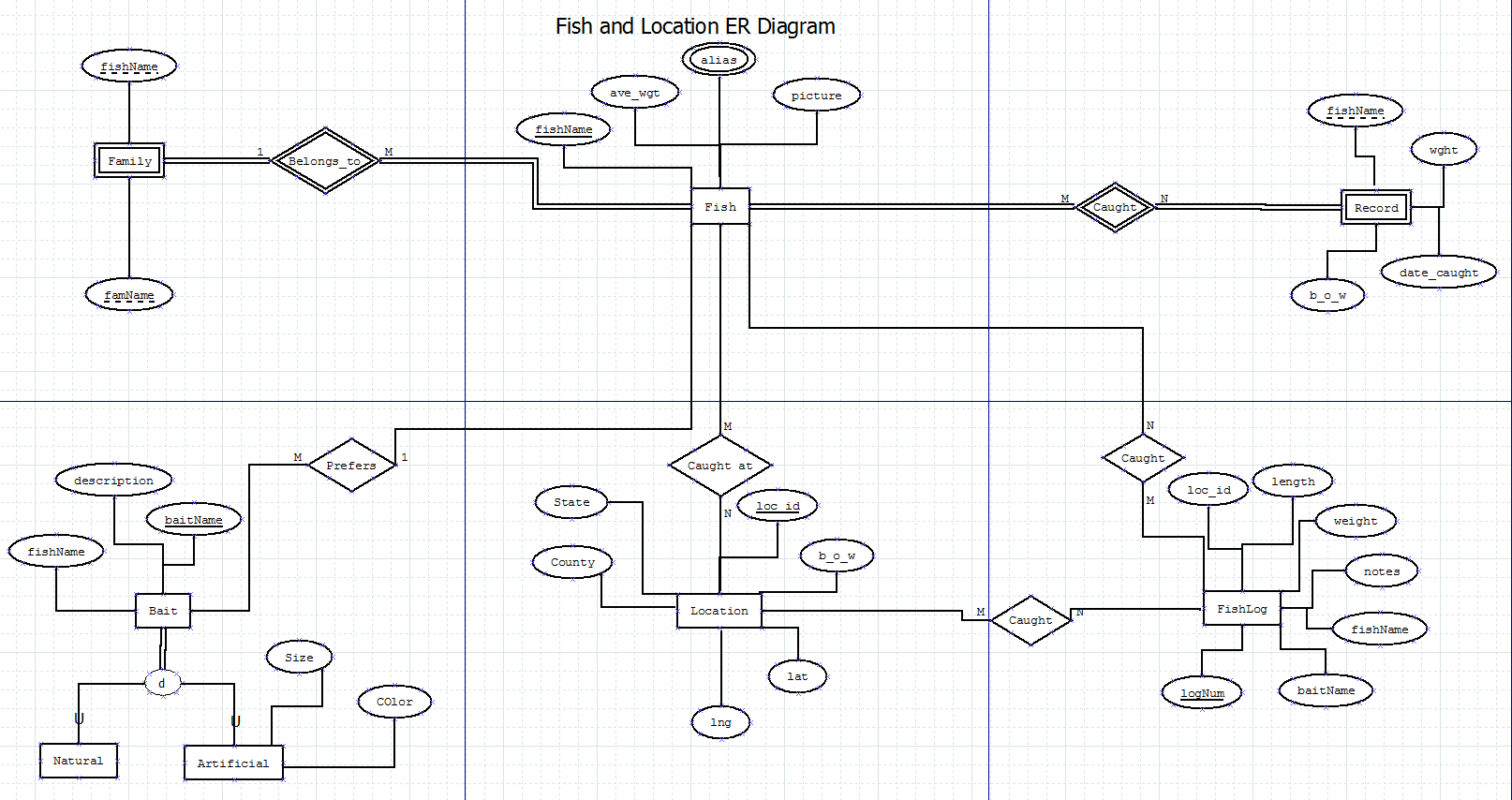
The overall purpose of creating a way for fisherman to store and access their locations, fish, and baits has remained the same. A Missouri records table was added to the DB and updates were also made to both the ER diagram and the Database schema for efficiency and comprehension since the last memo. The revisions are shown in the diagrams at the end of this document. At the time of this memo being written, all main objectives have been completed. The extras that include google maps and pictures of each fish are still unfinished with the hope of completion by the time of the presentation.

**User’s Manual**

The assumption is being made that the user will have the ability to use a database interface application like PhpMyadmin and be able to use Github.

1. Clone the repository from <https://github.com/Gould25/fish_local> .
2. Navigate to the master/generator/paperwork and open the fish\_local\_DB.sql file.
3. Copy and paste the sql code from inside the file to your DB interface. This is the initial setup for the DB.
4. Open a terminal and type the following “npm start”.
5. In a browser navigate to <http://localhost:3000/> to enjoy the web app.

**Revised ER Diagram**



**Revised Logical Database Design**

Fish (

fishName -VARCHAR (15), NOT NULL, - fish name

ave\_wgt – INTEGER (4), NOT NULL, - average weight of the fish

picture – IMAGE, NOT NULL, - Picture of fish

)

Primary Key fishName

Record (

fishName -VARCHAR (15), NOT NULL, - fish name

b\_o\_w – VARCHAR (25), NOT NULL, - body of water

weight – INTEGER (4) , - weight of record fish

date\_caught – DATE - NOT NULL

)

Foreign Key fishName References fishName(Fish)ON UPDATE CASCADE ON DELETE CASCADE

Family (

fishName -VARCHAR (15), NOT NULL, - fish name

famName – VARCHAR (15), NOT NULL – fish family name

)

Foreign Key fishName References fishName(Fish) ON UPDATE CASCADE ON DELETE CASCADE

Alias (

fishName -VARCHAR (15), NOT NULL, - fish name

aliasName – VARCHAR (15), DEFAULT NULL – UNIQUE - alias’ or nick names for fish

)

Foreign Key fishName References fishName(Fish) ON UPDATE CASCADE ON DELETE CASCADE

Bait (

fishName -VARCHAR (15), NOT NULL, - fish name

baitName – VARCHAR (15), NOT NULL – name of bait

description – TEXT – description of bait

)

Primary Key baitName

Foreign Key fishName references fishName(Fish) ON UPDATE CASCADE ON DELETE SET NULL

Artificial (

baitName – VARCHAR (15), NOT NULL – name of bait

size – VARCHAR – size of bait

color – VARCHAR – color of bait

)

Primary Key baitName

Natural (

baitName – VARCHAR (15), NOT NULL – name of bait

)

Primary Key baitName

Location (

lat - FLOAT (10, 6) -, NOT NULL, - latitude coordinates

lng - FLOAT (10, 6) -, NOT NULL – longitude coordinates

b\_o\_w -VARCHAR (25) -, NOT NULL, body of water

state – VARCHAR (15) – DERIVED FROM lat and lng – state body of water is in

county – VARCHAR (15) – DERIVED FROM lat and lng – county body of water is in

fishName – VARCHAR (15) – NOT NULL – fish name

)

Primary Key (lat, lng)

Foreign Key fishName – References fishName(Fish)ON UPDATE CASCADE ON DELETE SET NULL

fishLog (

logNum – INTEGER (5) – NOT NULL AUTO INCREMENT– Log number

fishName – VARCHAR (15) – NOT NULL – fish name

loc\_id – INTEGER – NOT NULL – Location ID

baitName – VARCHAR(25) – NOT NULL – bait name

weight – INTEGER (4) – DEFAULT NULL – weight of fish

length – INTEGER (4) – DEFAULT NULL – length of fish

notes – TEXT (255) – DEFAULT NULL – User notes

)

Primary Key logNum

Foreign Key fishName – References fishName(Fish)ON UPDATE CASCADE ON DELETE SET NULL

Foreign Key loc\_id – References loc\_id(Location) ON UPDATE CASCADE ON DELETE SET NULL

Foreign Key baitName – References baitName(bait) ON UPDATE CASCADE ON DELETE SET NULL