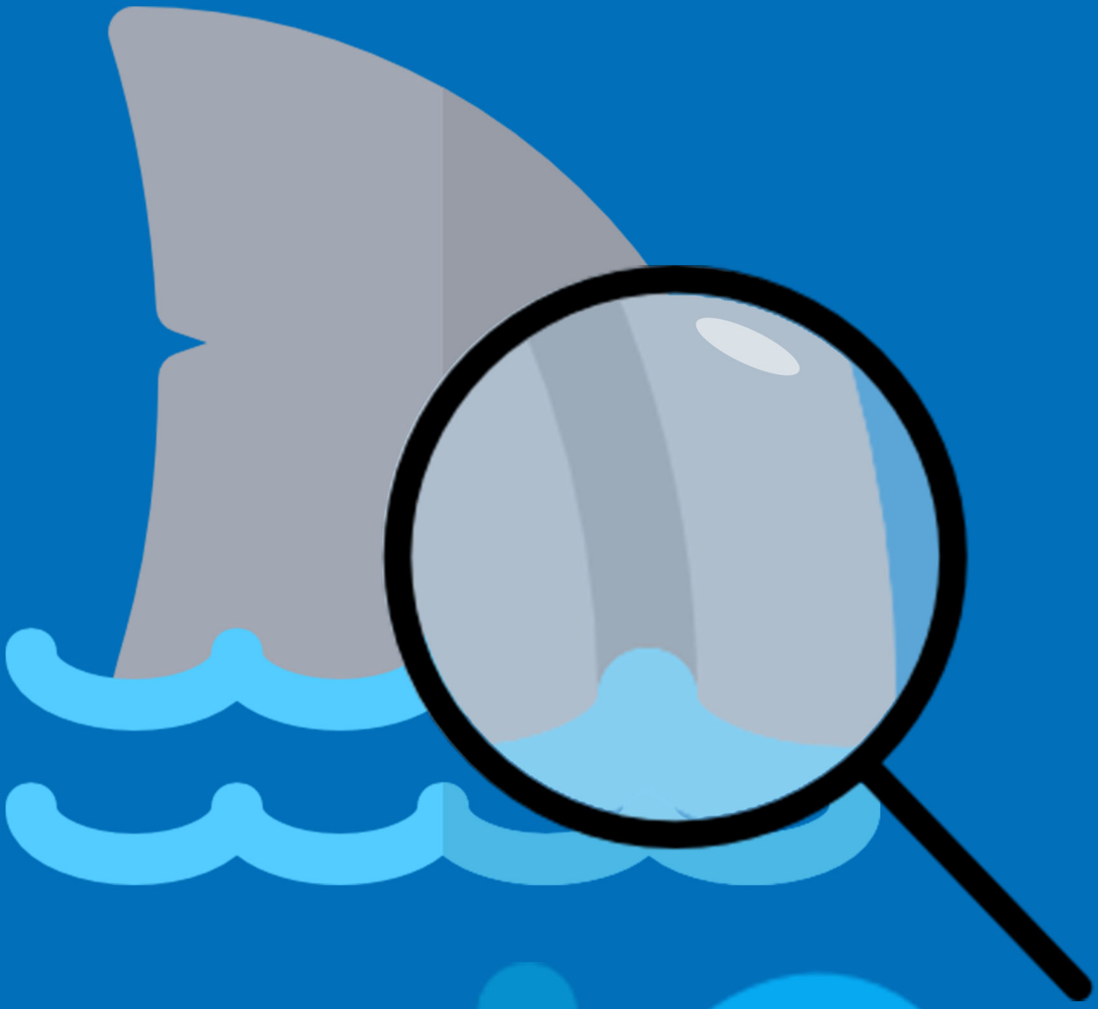

SPY ON SHARK

Spy On Shark

We have been summoned to a meeting where all the world leaders are coming together to solve the shark problem, once and for all. An off-the-radar scientist called **Friedrich Hildeburg** has been collecting information on shark attacks for years and has given you access to the database he stores all the data in. **Friedrich** doesn't know **NoSQL** and needs our help. Do not disappoint the world leaders nor **Friedrich Hildeburg**!

Template

There is a template provided which can be downloaded from **Canvas** (**template.zip**) and it includes:

- **schemas/**
  - **sharkSchema.js**
  - **attackSchema.js**
  - **areaSchema.js**
- **data/**
  - **db.js (***you only need to add your connection string within this file***)**
  - **seed.js (***the seed script which should be executed to retrieve the data***)**
- **constants/**
  - **index.js** (*contains constants which can be used for lookup*)
- **index.js** (*all of the queries will reside in this file*)
- **package.json**

Assignment description

In this assignment we are going to work on our **Mongoose** skills by writing a couple of queries. The assignment is divided in two parts: *setup* and *working with the data*.

(10%) Part I - Setup

1. Start by running **npm install** in the root folder
2. Go to https://www.mongodb.com/cloud/atlas and register for a free account and create a new database called **spy-on-shark**
3. Create a user for the database
4. Copy the database connection string
5. Add your connection string to **db.js**
6. Execute the following command **npm run seed** which will populate your database with some base data. Now the database contains a lot of data (*this is a database which stores data about shark attacks worldwide*). The database contains three collections: **sharks**, **attacks**, **areas**. The **sharks** collection stores information about sharks. The collection **attacks** stores information about attacks that have been made by sharks which can be linked to **sharks** and **areas**. The collection **areas** stores information about areas known to contain sharks.

(90%) Part II - Working with the data

1. Queries:

*All queries can be executed by running **npm run queries** in the root directory*

1.1. (10%) Get all sharks
1.2. (10%) Get all tiger sharks
1.3. (10%) Get all tiger and bull sharks
1.4. (10%) Get all sharks except great white sharks
1.5. (10%) Get all sharks which have been known to attack
1.6. (10%) Get all areas which have a registered attack
1.7. (10%) Get all areas which have more than 5 registered attacks
1.8. (10%) Get the area with the most registered shark attacks
1.9. (10%) Get the total count of great white shark attacks
1.10. (10%) Get the total count of hammerhead and tiger shark attacks

Submission

Submit a single compressed file (***.zip, *.rar**) to **Canvas**. Remember to exclude **node_modules**! If you are submitting as a group, don’t forget to comment the name of each group member (*excluding the one who is submitting*) to **Canvas**.