CS532: NoSQL Project 1-Page Proposal

Project Title: US Police Shootings analysis

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PROBLEM :

1. Inspired by the recent events happening all over the country, we came up with the topic of analyzing the police shootings in the US.

2. For this project, we will be using non structured query language called mongoDB.

3. We will be using public dataset from Kaggle.

PROJECT DESIGN:

1. The database query language will be non-structured query language that is mongoDB.
2. For managing the database, we will be using either python or java-script as our back end to interact with database and user.
3. We will be incorporating html5 with various template generating libraries to dynamically create webpages according to the user input or user choices.
4. For server design, we will be using either AWS or express.js for deploying our project.
5. We will try to make the front-end as user friendly as possible.

IMPLEMENTATION:

1. We will be first setting up the environment for mongoDB to try out some basic queries after loading the dataset using a serverless basic script using either python or java-script.
2. After experimenting with basic queries, we will transition to more complex queries and then proceed to the next step.
3. In this step, we will compile a script which will connect the script to the database and fire the queries that we experimented with in the earlier step.
4. We will be deploying out script to the server and simultaneously create a user-friendly interface to interact with the database.
5. After this, we will completely back test out project to see whether it is working properly and efficiently.

QUERY IMPLEMENTATION:

1. **Basic Queries**:
    1. Display the database
    2. Display the count number according selected filters
    3. Sort the data according to attribute asc./desc.
    4. Update the database
    5. Add or remove/delete a row

2. **Complex Queries**:

It consists of analysis of various fields or various attributes such as age, gender, race, city, state, etc. and find discrepancies between various attributes. User will also be given the option to implement the complex queries in graphical user interface.

References:
https://www.kaggle.com/ahsen1330/us-police-shootings