Hadi Abdelaal

CS-340

Dr. Paruchuri

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**7-2 Project Two (ReadMe)**

This program is an excellent system that satisfies all of the client's criteria. The program was created in Jupiter Notebook with Python 3. Consequently, Jupiter Notebook can be used to run the software. The program consists of two modules: the server side, which interfaces to and retrieves information from the utilized database, and the user's front end, which serves as a link among them.

The program employs a mongo system instead of a relational or organized query language-based system since it offers more benefits in the following areas: It is capable of processing lots of data quickly. It makes updating the schema and associated fields simple. It is helpful to developers. Likewise, make the most of the clouds.

The endeavor is a straightforward application that aims to give the user access to information that satisfies specified criteria. In other words, the client will just be able to view the information that he wants to see because the data is screened depending on the instructions that he provides to our server.

**The project:**

When a user selects an option in the data filtering box, all the animals that fall under the chosen group are displayed in the table containing the data.

A screenshot of a computer

Description automatically generated

Additionally, there are graphs and geo charts at the bottom of the page that provide information for the chosen animal on the table of contents.

A screenshot of a computer

Description automatically generated

This is crucial because users may only verify what animals they require to know instead of browsing through a table with all the information from the computer's database. The list only displays the animals that correspond to the category chosen above. Additionally, there are geo charts, which are web maps that display the precise spot of the business and some information about the chosen animal. The map itself provides directions, making it crucial for all users who want to find an animal's position.

A screenshot of a computer

Description automatically generated

The final section is a visual depiction of the chosen data. This is significant since it is simple to read and provides a fast image of the information that was chosen.

A screenshot of a computer

Description automatically generated

The server contains all of the supplies needed for the deployment. Jupiter Notebook and the Mongo databases must be downloaded for the first-time users. A connection file connects to the information storage system and improves data retrieving. The above file is required to link the new file to the databases. I also created a program for creating data charts, graphs, tables, and images.

**The dash library:**

The dash library is a simple tool with extensive online documentation. This facilitates instruction and makes utilizing the library less complex. Dash has more capabilities for presenting information and representation, as well as additional features for gathering user input. The rendered elements can be readily structured using CSS, making them aesthetically pleasing. The issue of error management was one of the difficulties I encountered in the course of this assignment. I haven't discovered a mechanism to capture exceptions in the same way that other programming languages do. When presenting graphs, it is difficult to display any errors on the monitor so that simple corrections can be made.