

Introduction

Course Details

IU Big Data Course (BUEX-V594)

Assignment Title

Interactive Data Visualization Dashboard

Assignment Type

Software Project

Team

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Assignment Details

Overview

The project is a data visualization implementation that creates an interactive dashboard by leveraging the data stored in mongo db and using it to create visualizations on key indicators

Objectives

The primary objective of the project is to demonstrate the implementation of an interactive dashboard that leverages data from mongo db and uses visualization constructs such as Flask and KeenIO to deliver the project along with the DevOps wrapper that facilitates easy deployment and testing of the solution

Artifacts

The final artifacts for this project would include:

- a) Data visualization
- b) Screenshots for the project
- c) DevOps deployment commands
- d) Github link for source
- e) Concise report containing project details and deployment instructions

Assignment Details (Technical)

Technologies Used

Python

Python is used as the primary programming language to accomplish a variety of activities ranging from environment set-up to creation of final file that creates the visualization and connects to the mongo db

Mongo db

Mongo db is used as the data base to store the 700,000+ strong data in the form of a collection within the project database and downloaded from an externally hosted site

D3.js

D3.js (Data-Driven Documents) is a library in JavaScript that is used for producing dynamic and interactive visualizations for the dashboard using the mongo db data

DC.js

Leverages D3.js to render charts from large data charts in a friendly format

Cloudmesh

Used to deploy the solution using the DevOps framework

Assignment Details (Solution Approach)

