**DATA VISUALISATION TOOL**

A

Project Report

Submitted in partial fulfillment of the requirement for the award of degree of

**Bachelor of Technology**

In

**Information Tecnology/Computer Science &Engineering(Data Science)/Computer Science & Engineering(Internet of Things)**

Submitted to

**RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA,**

**BHOPAL (M.P.)**



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**INDORE (M.P.) 452020**

**2023-2024**

Declaration

I hereby declared that the work, which is being presented in the project entitled **Data Visualisation Tool**partial fulfilment of the requirement for the award of the degree of **Bachelor of Technology**, submitted in the department of Information Technology/CSE(DS)/CSE(IoT) at **Acropolis Institute of Technology & Research, Indore** is an authentic record of my own work carried under the supervision of “**Prof.Shahida Khan**”. I have not submitted the matter embodied in this report for award of any other degree.

<Student Name><Roll No>

Prof./Mr./Ms./Dr. Project Guide

Supervisor

Project Approval Form

I hereby recommend that the project<**Title of Project>** prepared under my supervision by<**Student Name (Roll No.)>**be accepted in partial fulfillment of the requirement for the degree of Bachelor of Engineering in Computer Science & Engineering.

<<Supervisor Name>>

**Supervisor**

Recommendation concurred in 2023-2024

<<Name>>

**Project Incharge**

<<Name>>

**Project Coordinator**

Acropolis Institute of Technology & Research

Deparment of Infromation Technology/CSE(DS)/CSE(IoT)



Certificate

The project work entitled **Title of The Project** submitted by **<Name of the student (Enrollment No)>** is approved as partial fulfillment for the award of the degree of Bachelor of Technology in Information Technology/CSE(DS)/CSE(IoT) by Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal (M.P.).

**Internal Examiner External Examiner**

Name:………………. Name: ……………..

Date:…./…/……….. Date:…./…/………..

Acknowledgement

With boundless love and appreciation, we/I would like to extend our/my heartfelt gratitude and appreciation to the people who helped us/me to bring this work in reality. We/I would like to have some space of acknowledgement for them.

Foremost, our/I would like to express our/ my sincere gratitude to our/my supervisor, **Prof.Shahida Khan**whose expertise, consistent guidance, ample time spent and consistent advices that helped us/me to bring this study into success.

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We/I also like to pay thanks to our/my**parents** for their eternal love, support and prayers.Without them it is not possible.

Student 1(Roll No)

Student 2(Roll No)

Student 3(Roll No)

Student 4(Roll No)

Abstract

1. What was done?

In this project, a data visualisation tool has been developed for easing the visualisation tasks for complex datasets using various technologies. This is a tool for visualising the datasets in a much easier way using various charts, plots and infographics.

1. Why was it done?

This is done to ease the complex process of visualising data and myth-busting the easiness behind it. It aims to provide ease to a person having less technical knowledge about the various visualisation tools and technologies which indirectly helps an organisation to find patterns and trends in the data at a lower cost and human effort.

1. How was it done?

This was done using the following steps:

1. Defining the data visualisation goals and requirements
2. Choosing a data visualization framework or library that meets our needs.
3. Design and develop the data visualization software using our chosen framework or library.

The tool was built using various technologies such as:

1. Frontend:
   * HTML
   * CSS
   * JavaScript
   * Bootstrap
2. Backend:
   * Python(Flask)
3. Plotting libraries:
   * Matplotlib
   * Seaborn
4. Database:
   * MySQL
5. What was found?

A data visualisation tool was made to ease the visualisation tasks. For the same, a web app was developed to perorm visualisations using HTML, CSS, JS, Bootstrap, Flask and SQL enabling the user to easily perform visualisation tasks.

We got to know various technologies used for developing visualisation tools and how to work upon them to customise the development according to our requirements.

Found out various insights from the visualisations performed on the datasets and drawn patterns, trends and learnt about handling the outliers in the data if any. Also learnt about how to handle the null values and missing values and need for data cleaning.

1. What is the significance of the findings?

It helped us in the overall development of the project in a very interactive way and efficient manner

So as to develop it in the minimum possible time. It helped us in the step-by-step development of the project in order to gear up the process and reduce the time required in the development of the tool.

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6.1 Conclusion

6.2 Future Scope

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