MINOR PROJECT

Title:

Statistical Data Visualizer Library

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INTRODUCTION

In the globalized world, there has been the need for displaying massive amounts of data, in a way that it is easily accessible and understandable not only to the data analyzer, but also to every user who goes through it and because the use of analytics is no longer limited to big companies with deep pockets also since data is the fuel for many industries as a result of which the amount of data available on the Web has increased drastically so it is difficult for many users to visualize, explore, and use this enormous amount of data. So with the help of the library we are going to make people can easily use its features to analyze huge amount of data.

PROBLEM STATEMENT

To create a data representation library which can be used to show and analyze huge amounts of data in the form of graphs and charts according to the user's choice.

OBJECTIVES

- To develop a single Java library which minimizes the span of time and visualizes different statistical operations at once.
- To give a glimpse of a visualization tool for beginner programmers.
- To get our youth more excited about the Java programming language.

TECHNOLOGY STACK

1. Software Requirements

Operating System : Windows 10/8/7 (32-bit or 64-bit)
Software : Eclipse/ VS Code

2. Hardware Requirements

Processor : Dual Core 2.7 GHz or better
RAM : 512 MB or higher
Disk Space : 512 MB

METHODOLOGY

We will be using the Agile Model for our project's development. A statistical visualizer library provides the user the leverage of having the statistical operation that provides the visualized data in a graphical and pictorial format under a single library. So, all this needs to be done in small parts and checked phase wise and a constant interaction with the user is needed. Agile Model deems that the current methods should be tailored with time and according to project's need also it divides the tasks to small frames to deliver particular features for a release. This model also emphasizes user interaction as the students , developers, and testers collaborate throughout the project. However, because this approach is strongly reliant on client engagement, the project may continue in the incorrect direction if the developer is unsure of where he or she wants to go.

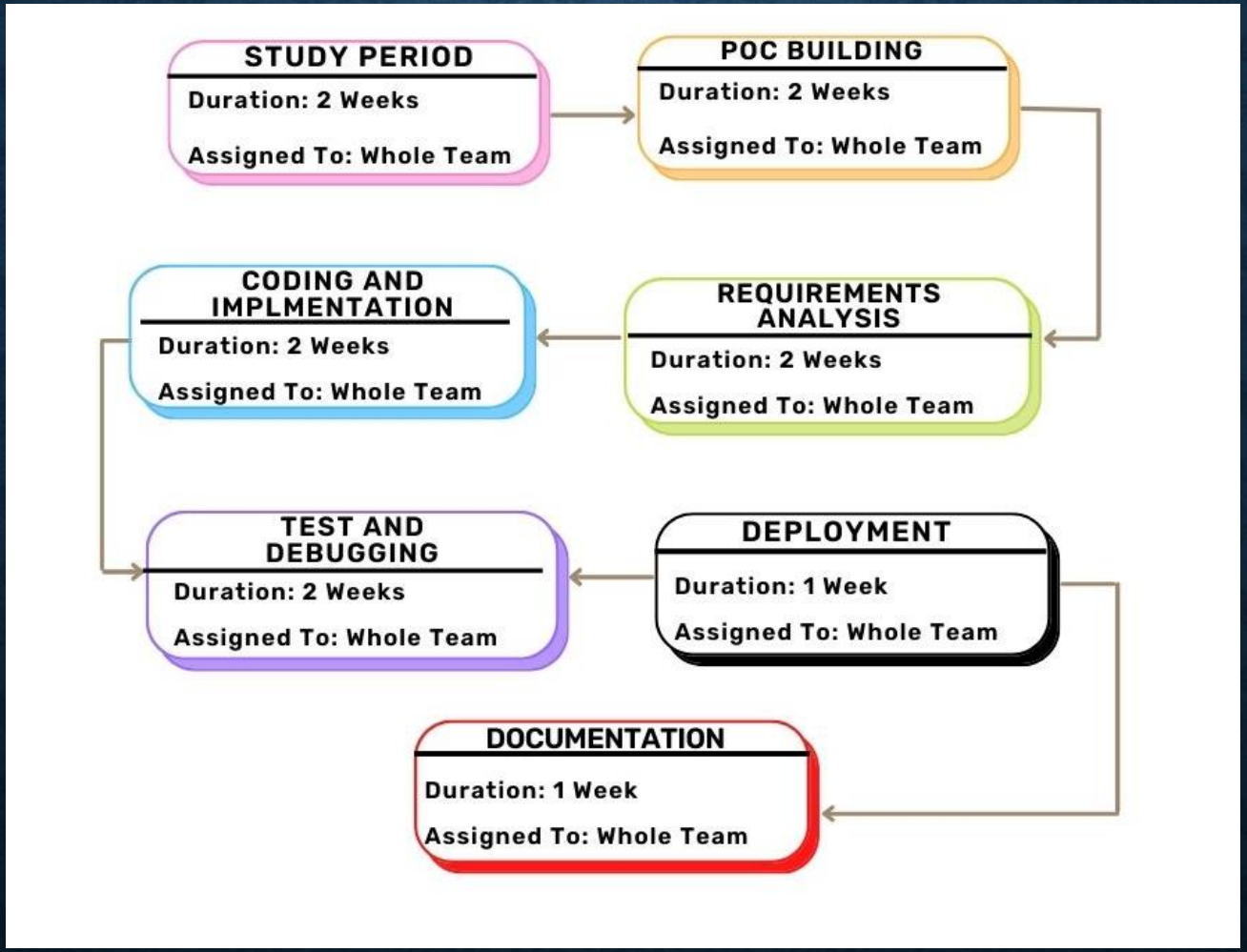
IMPLEMENTATION

Doc-Tool is extremely easy to use and is designed to be language self-reliant. The tools gather data about the software as well as visualizes it to the user in an easy to understand and convenient way. Use a set of JSON files as well as a chart database as the backbone. The tool have of three main modules crawlers, user control , element mapper Plugin parser. The Doc-Tool architecture is shown in the figure 4. In this implementation, the tool is intended to visualize Java web applications. The crawler plugin is an eclipse plugin in fig 4. The plugin makes relationships with the nodes on the server level.

SWOT ANALYSIS

Strengths • **Time efficient** • **Fast analysis** • **Easily accessible** • **Contains a lot of options for different types of data.** • **Friendly for new programmers.**	**Weakness** • **Doesn't have every data visualization graph.**
Opportunities • Creating a platform where users get an easy access to the visualisation world instead of getting into the complexities	Threat • User needs to have basic knowledge of programming.

PERT CHART


STUDY PERIOD
Duration: 2 Weeks
Assigned To: Whole Team
POC BUILDING
Duration: 2 Weeks
Assigned To: Whole Team
REQUIREMENTS ANALYSIS
Duration: 2 Weeks
Assigned To: Whole Team
CODING AND IMPLMENTATION
Duration: 2 Weeks
Assigned To: Whole Team
TEST AND DEBUGGING
Duration: 2 Weeks
Assigned To: Whole Team
DEPLOYMENT
Duration: 1 Week
Assigned To: Whole Team
DOCUMENTATION
Duration: 1 Week
Assigned To: Whole Team

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Thank You