

Project Management System - Group 19 : Lab 4

Tools

- **Visual Studio Code** : Visual Studio Code (VS Code) is an open source IDE and code editor which provides support for efficient debugging and lightweight integration with existing tools.
- **GitHub Copilot** : GitHub Copilot is an AI pair programmer which uses the OpenAI Codex to suggest code in real-time. Integrating it with VS Code will help make the coding process clean and accurate.

Technologies & Frameworks

- **HTML & CSS with Bootstrap** : HyperText Markup Language (HTML) is the standard markup language for creating web pages. It is often used with Cascading Style Sheets (CSS) which is a style sheet language used for describing the presentation of a document written in a markup language such as HTML. We will use Bootstrap, a popular CSS framework, to ease the process of styling web pages.
- **React JS** : React is a declarative, efficient and flexible Javascript library used to build interactive component based complex UIs. Use of React JS along with HTML and Bootstrap will enable us to build the frontend of our web-application.
- **Django** : Django is a python based web framework used to build fast, highly secure and scalable web applications. It is an open source framework which follows the *model–template–views* architectural pattern.
- **MongoDB** : MongoDB is a popular NoSQL database which uses JSON-like objects with optional schemas. It is fast, highly scalable and flexible.

Function Point Estimation

Login

Measurement Parameter	Count	Weighting Factor	Answer
Number of external inputs (EI)	1	3	3
Number of external outputs (EO)	2	5	10
Number of external inquiries (EQ)	1	4	4
Number of internal files (ILF)	1	7	7
Number of external interfaces (EIF)	1	5	5
Total Count			29
Complexity Multiplier (CAF)			0.89
Function Points(FP)			25.8

$$CAF = 0.65 + (0.01 * \Sigma W.F.)$$

$$= 0.65 + (0.01*24)$$

$$= 0.65 + 0.24 = \mathbf{0.89}$$

$$FP = \text{Total Count} * CAF = 29*0.89 = 25.81$$

Features	Function Point
Login	25.8
Register	35.8
Create Team	43.6
Create Project	46.5
Assign Task	36.4
Report Task Completion	45.1
Performance Analysis	53.0
Project Dashboard	28.1
Resource Booking	31.1
Resource Allocation	32.3
Share Files	37.7
Chat	33.3