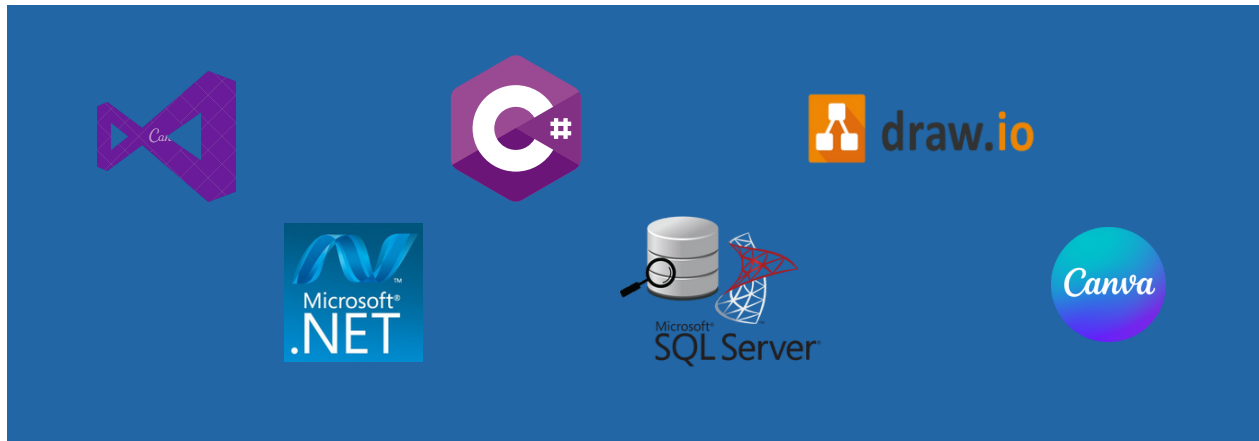


Tools and Things used for design

07



- **Programming Language - C#**

The programming language used is **C#**, which is commonly used for Windows Forms applications and integrates with various libraries and frameworks.

- **Development Environment**

The project is likely developed using Visual Studio, a popular integrated development environment (**IDE**) for **C#** and **.NET** development. Visual Studio provides a user-friendly interface for building Windows Forms applications and offers debugging and design tools.

- **Windows Forms**

The user interface (**UI**) for the project is built using **Windows Forms**. Windows Forms is a graphical user interface framework provided by **Microsoft** for developing desktop applications in **C#**.

- **Canva**

Canva is a user-friendly online graphic design tool that helps people create a wide range of visual content easily, even without prior design experience. It is used to create **project reports**.

- **SQL Server Database**

The project connects to a **SQL Server database** using **System.Data.SqlClient**. This is evident in the code where SQL Server connections and commands are used for **data storage and retrieval**.

- **Database**

The project appears to interact with a database to store and retrieve information related to projects, employees, labor, recourses, and progress. The exact **database management system (DBMS)** is **SQL Server**.

- **Draw.io**

Draw.io is a web-based diagramming tool that allows users to create **diagrams** and **visual representations** of ideas and concepts.



Initial plan vs Actual plan

Initial plan

In the initial plan for the project management system for building construction, that a user could log in and get details about the project.

Further primary objective was to create a functional system with a focus on simplicity.

Initially, there was an intention to have just four forms for each of the main user categories, dashboard, employee, labor, and project.

Actual plan

Initially, the intention was to have only four forms for each of the main user categories, dashboard, employee, labor, and project, but it was not limited to four forms but a wider range was made.

The app allows you to add a project, employee, or resource and get their details, and also add a pro with graphs to see the progress and details of all projects. It can provide an accurate understanding of the details contained therein.

WORK CONTRIBUTION & CHALLENGERS

09

Work Contribution

NAME

CONTRIBUTION

C.P.K.Wijeratne

Dashboard & Employee

H.G.H. Eshan

Progress & Login

N.P.K.D.R.S.Gunarathna

Labor

D.H.G.Lahiru

Project

J.M.N.C.Jayamanne

Resource

Challenges

- **Time Management:**

Balancing individual tasks with team responsibilities was challenging. Meeting deadlines and managing time efficiently is critical.

- **Online Collaboration:**

Adapting to and effectively using online collaboration tools can be a learning curve for some group members.

- **Communication Gaps:**

Misunderstandings and lack of clarity can occur due to differing schedules, leading to communication gaps.

- **Motivation and Accountability:**

Keeping all group members motivated and accountable, especially when working remotely, poses a challenge.

- **Conflict Resolution:**

Addressing disagreements or conflicts within the group requires effective resolution strategies.

Challenges

09

- **Workload Management:**

Balancing project work with individual commitments and responsibilities can lead to stress and time management challenges.

- **Flexibility:**

Adapting to changing schedules and unforeseen circumstances requires flexibility and adaptability.

- **Progress Tracking:**

Tracking project progress, especially when group members work at different times, can be complex.

- **Scheduling Conflicts:**

Coordinating the schedules of four group members is challenging, making it difficult to find suitable meeting times.

- **Task Management:**

Handling multiple tasks requires clear responsibilities and deadlines to prevent overlaps or omissions.

- **Coordination issues:**

Ensuring alignment between the contributions of different members can be tricky.



FUTURE ENHANCEMENTS

- **Artificial Intelligence (AI) and Machine Learning:**

Integration of AI and machine learning algorithms for predictive analytics, task automation, and intelligent decision support. AI can assist in resource allocation, risk assessment, and project forecasting.

- **Advanced Reporting and Analytics:**

More sophisticated reporting and analytics capabilities, including real-time dashboards, customizable KPIs, and data visualization tools for better project insights and decision-making.

FUTURE ENHANCEMENTS

10

- **Blockchain Integration:**

Blockchain technology for enhanced security, transparency, and traceability in project management, particularly in industries like supply chain management and finance.

- **IoT Integration:**

Integration with the Internet of Things (IoT) devices to collect real-time data from project equipment and assets, enabling proactive maintenance and monitoring.

- **Automation of Routine Tasks:**

Automation of repetitive tasks such as status updates, document approvals, and task assignments to free up project managers for more strategic work.

- **Enhanced Mobile Experience:**

Mobile apps with improved functionality and offline capabilities to allow team members to work on projects from anywhere.

FUTURE ENHANCEMENTS

10

- **AI-driven Risk Management:**

AI-powered risk assessment and mitigation tools that can predict and proactively address potential project risks.

- **Security and Privacy:**

Enhanced security measures to protect sensitive project data and compliance with evolving data privacy regulations.

- **Resource Optimization:**

Advanced resource management features for optimizing the allocation of human and material resources based on skill sets and availability.

Our Team



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