Social Pulse Insight Hub

Project Plan

Student: Virag Szabo (4727444)

Date: March 1 - 15, 2024

Subject: Threading in C#

School: NHL Stenden

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1 Project Overview

The Social Pulse Insight Hub project aims to develop a comprehensive application for social media analytics. It will allow users to securely log in, integrate their social media accounts, fetch and visualize data, and analyse metrics through an intuitive dashboard.

2 Scope

The project scope includes designing and deploying a SQL Server database schema, creating UI mock-ups, developing backend and frontend components, testing functionalities, and delivering a presentation summarizing project objectives and outcomes.

3 Objectives

- Validate essential features like user authentication, social media integration, data fetching, and analytics dashboard.
- Ensure cross-platform compatibility, usability, accessibility, performance, scalability, security, and error handling.
- Perform integration and regression testing to maintain application quality.
- Present the project to stakeholders, including instructors, classmates, and potential users.

4 People

4.1 Stakeholders

Name	Email	Phone	Place
Rob Loves	rob.loves@nhlstenden.com	+31610480182	Emmen

As a **stakeholder**, he is responsible for providing input, feedback, and support for the project. Also, he is involved in reviewing project progress, and ensuring that the project aligns with organizational goals and objectives. Additionally, he may advocate for the project, allocate resources, and address any concerns or issues that arise during the project lifecycle.

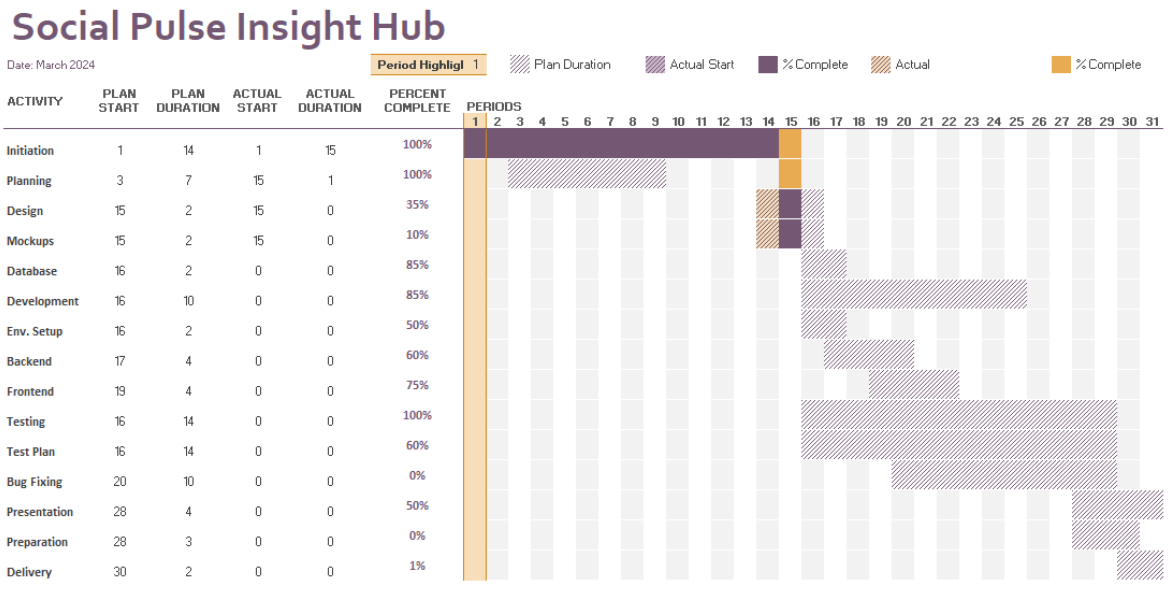
4.2 Members

Name	Email	Phone	Place
Virag Szabo	virag.szabo@student.nhlstenden.com	+31641685452	Haarlem

As the **project manager**, I am responsible for overall planning, coordinating, and executing the project. As the **database designer**, I am responsible for deploying a SQL Server for storing user data and analytics. As the **UI/UX designer**, I am responsible for creating mock-ups. As the **backend developer**, I am responsible for implementing authentication, social media integration (APIs), and data fetching. As the **front developer**, I am responsible for implementing cross-platform UI using .NET MAUI. As the **tester**, I am responsible for developing and executing a comprehensive test plan. As the **presenter**, I am responsible for preparing and delivering a presentation at the end.

4 Timeline

Phase	Date	Description
System Architecture	March 1 - 15, 2024	Define the overall application. Write Start Document.
Database Design	March 15, 2024	Plan the structure of the database to store user data and analytics metrics.
User Interface Mock-ups	March 15, 2024	Create and finalize mockups for the analytics dashboard and user settings.
Kick-off	March 15 - 17, 2024	Present the idea for the lecturer.
Development	March 18 - 31, 2024	Create a project and build up the starting structures of the project. Add APIs. Adjust visualization. Add social media registration.
Testing	March 18 - 31, 2024	Test the features and fix the project.
Submit	March 30, 2024	Hand in the project with all the necessary documents and folders.
Presentation	March 31, 2024	Present the work you have done.



5 Task and Activities

5.1 Design

Database: Design and deploy a SQL Server database schema for storing user data and social media analytics.

Mock-ups: Create UI mock-ups using Adobe XD, incorporating feedback and ensuring consistency across platforms.

5.2 Development

Environment Setup: Configure the development environment with necessary tools and frameworks.

Backend Development: Implement backend logic for authentication, social media integration, and data fetching.

Frontend Development: Develop cross-platform UI components using .NET MAUI and ensure compatibility.

5.3 Testing

Test Plan: Develop and execute a comprehensive test plan covering unit, integration, and end-to-end tests.

Bug Fixing: Identify and resolve any bugs or issues discovered during testing iterations.

5.4 Presentation

Preparation: Prepare a presentation summarizing project objectives, features, achievements, and challenges.

Delivery: Practice and deliver the presentation to stakeholders, including instructors, classmates, and potential users.

6 Risk Management

Technical Complexity: Integrating multiple social media APIs and implementing real-time data updates may pose technical challenges.

Resource Constraints: Limited availability of the student or access to necessary tools and technologies may impact project timelines and deliverables.

Security Vulnerabilities: Inadequate security measures could result in data breaches or unauthorized access to sensitive user information.

Scope Creep: Unclear or evolving project requirements may lead to scope creep, causing delays and budget overruns.

Third-party Dependencies: Reliance on third-party services for social media integration may introduce risks related to service outages or changes to API functionality.

User Adoption: Low user adoption or engagement with the application may indicate a lack of perceived value or usability issues.

7 Mitigation Strategies

Technical Prototyping: Conduct early prototyping to tackle technical challenges upfront.

Team Training: Provide skill development opportunities to enhance team expertise.

Security Audits: Regularly audit and test security measures to proactively address vulnerabilities.

Incremental Delivery: Use iterative development to manage scope and prioritize features based on user feedback.

API Diversification: Integrate alternative APIs to mitigate risks associated with service disruptions.

User-Centric Design: Continuously gather user feedback to improve application usability and engagement.

8 Definition of Success

8.1 Key Performance Indicators (KPIs)

User Engagement: Measure the number of active users, session duration, and frequency of interactions with the application.

Data Accuracy: Monitor the accuracy and reliability of social media analytics data displayed on the dashboard.

Performance Metrics: Track application performance indicators such as response time, load time, and server uptime.

User Satisfaction: Collect user feedback through surveys or reviews to assess satisfaction with the application's features and usability.

Adoption Rate: Evaluate the rate of adoption among target users and identify factors influencing adoption or retention.

Security Compliance: Ensure compliance with security standards and regulations, such as GDPR or HIPAA, to protect user privacy and data integrity.

8.2 Success Criteria

Achievement of Milestones: Successful completion of project milestones within defined timelines and budgets.

Positive User Feedback: High satisfaction ratings and positive reviews from users regarding the application's functionality, performance, and user experience.

Increased User Engagement: Growth in the number of active users and user engagement metrics over time.

Accurate Analytics: Consistent delivery of accurate and reliable social media analytics data, validated through internal testing and user feedback.

Adherence to Security Standards: Compliance with security standards and regulations, as validated through security audits and testing.

Stakeholder Satisfaction: Satisfaction of project stakeholders, including sponsors, end-users, and team members, with the overall project outcomes and deliverables.