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Agile Working - Project idea Pineapple Planner

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Programme

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1 Task 1

Time management is a challenge for individuals that have multiple responsibilities across work, studies, and personal life, that leads to increased stress and decreased productivity. Study-related stress and disruption of mental health may take origins from procrastination which is quite common for people with poor time management [1].

Traditional calendars and to-do lists, while useful, may not provide the comprehensive support needed to manage these demands effectively [2]. For improving individual's efficiency, to-do list may be implemented calendar for efficiency.

The desktop application "Pineapple Planner" is a task management tool with integrated calendar, to-do list which aims to minimize stress to help completing daily tasks and improves personal productivity. The app will include recurring tasks, custom task categories, reminders, and priority levels. Dependencies between tasks will be displayed visually, helping users understand how their tasks relate to one another.

The application is focused on improving mental health stability with focus on SDG 4.3.2 [3]. Additionally, it aims to contribute to structure people's lives and to help them achieve their daily goals avoiding task-related stress.

2 Task 2

Considering ethical aspects and social responsibility in the development of the Pineapple Planner desktop application is crucial to ensure fairness, accessibility, and user trust. Ethical principles help create a product that respects user privacy and promotes inclusivity.

One key consideration is data privacy and security. Task management applications often store sensitive personal information, so implementing strong data protection measures aligns with ethical guidelines such as the General Data Protection Regulation. Ensuring that user data is stored securely in a Firebase store and not exploited for commercial gain fosters trust and transparency. [4]

Additionally, our application should avoid manipulative design and addictive features that pressure users. Dark patterns, such as misleading notifications, excessive reminders, or barriers to account deletion, must be eliminated to ensure user control. Instead, the design should promote productivity without fostering dependency. To support ethical use, the application should offer customizable notifications, break reminders, and transparent data policies. Clearly explaining data usage and providing simple consent options will reinforce trust and align with ethical standards. [5]

Many tools currently being marketed are, intentionally or not, contributing to "hustle" culture, which leads to rapid burnout. While making PineapplePlanner we will make sure that our app does as little as possible to lead to immature burnouts.

3 Task 3

- a) We plan to develop the Pineapple Planner app with scalability and usability in mind. By using Domain-Driven Design (DDD) with C#, WPF, and Blazor, the system will be modular and easy to maintain, allowing the integration of new features over time if required. The combination of WPF for desktop and Blazor for web components will ensure a user-friendly and responsive interface. Technically, our infrastructure allows easy migration to cross-platform usage. With C#'s strong type safety and GitHub's CI/CD pipelines, the app will maintain data integrity and deliver stable updates. Lastly, we will strongly profit from JIRA's structured project and task management.
- b) We intend to build a C# WPF application that integrates a Blazor web application as an external assembly. The Blazor app accesses data from a database through queries and commands (CQRS) which are implemented in the application layer assembly. The application layer accesses our entities that are defined in the domain layer. Generally, it can be said that we plan to use a microservice architecture according to the Domain-Driven-Design (DDD) infrastructure pattern also known as the *Onion architecture*.

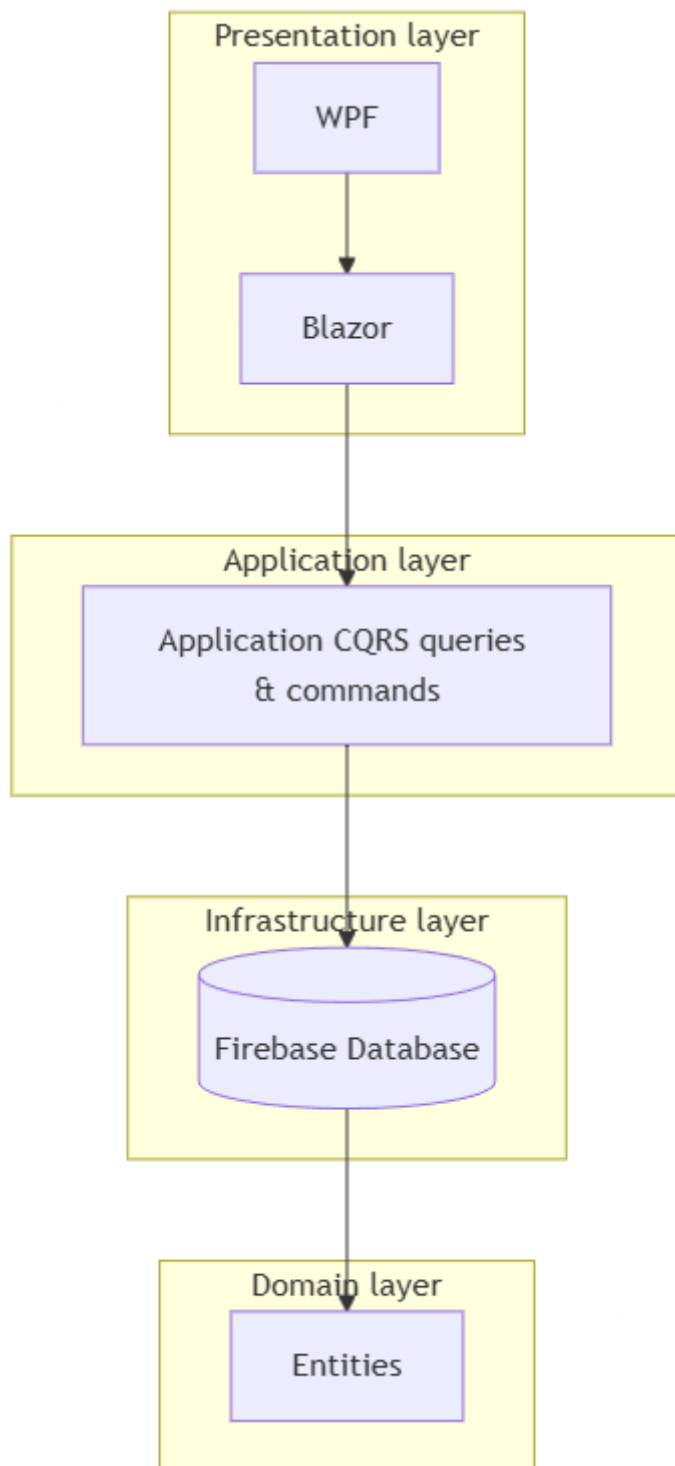


Figure 1: Infrastructure proposal

4 Task 4

Nr	Requirement item	Priority (High/Medium/Low)
R1	The user shall be able to inspect their tasks.	High
R2	The user shall be able to manage their tasks.	High
R3	The user shall link their task data to their account.	High
R4	The user shall be able to prioritize tasks.	Medium
R5	The user shall be able to set recurring tasks.	Medium
R6	The user shall be able to set reminders for tasks.	Low

Table 1: Requirement items

Nr	Requirement item	Priority (High/Medium/Low)
D1	Task items are listed in a todo list view and visible in a calendar view.	High
D2	A task form allows the users to create, edit and delete their tasks.	High
D3	The application saves a users' tasks in a database.	High
D4	Tasks can be assigned priority levels (e.g., High-/Medium/Low) with visual indicators (e.g. color-coding) in the todo list and calendar views.	High
D5	Tasks can be set to repeat daily, weekly, monthly, or custom intervals.	Medium
D6	A notification system alerts users via desktop notifications.	Low

Table 2: Design items

5 Task 5

Sprint	Sprint 1	Sprint 2	Sprint 3	Sprint 4
Scrum master	Varvara Aladyina	Deinoras Krasauskas	Azhaf Khan	Max Sellick, Simon Ostini
Developers	Max Sellick, Simon Ostini	Varvara Aladyina	Deinoras Krasauskas	Azhaf Khan
Tester	Deinoras Krasauskas	Azhaf Khan	Max Sellick, Simon Ostini	Varvara Aladyina
Support	Azhaf Khan	Max Sellick, Simon Ostini	Varvara Aladyina	Deinoras Krasauskas

Table 3: Sprint role planning

6 References

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