**Plan project: Pass The Ball**

**By:** Simeon Markov

**Department:** ICT, Fontys UAS

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# Introduction

1. *A Unified Social & Activity Hub:* A single platform that combines social networking features (profiles, feeds, messaging) with practical activity tools (event creation, RSVPs, scheduling).
2. *Interest & Skill-Based Discovery:* Users must be able to find other enthusiasts and activities.
3. *Seamless Activity Management:* Simplify the process of creating, promoting, and managing sports events.
4. *Community-Driven Content:* Features for users to share photos/videos, write reviews of venues, post articles/tips, and celebrate community achievements.
5. *Inclusivity and Safety:* Tools to create private groups (e.g., workplace leagues, women only running clubs), verified profiles, and a clear code of conduct to ensure a safe and welcoming environment

*Keywords*:sports, community, groups

# Objectives of the project

The goal is to design and implement a functioning game within the timespan of four weeks,

providing:

**INTUITIVE USER INTERFACE**

Interface that is easy for navigation, following the layout concepts.

**PERFORMANCE**

Reasonable responsive time for data loading.

# CONTENT

Fetching random questions from different categories using openly distributed APIs.

All functions are based on the *user requirements specifications* that the game meets.

My contributions are:

* Setting up the development environment.
* Designing, wireframing and prototyping.
* Implementation.
* Integrating database into the project.
* Data visualization, reverse engineering.

## Main questions

1. How could I come up with a product that is entertaining and at the same time educational.
2. What kind of technologies, game engines, would work better and more efficiently for my game and why.
3. What would be my learning outcomes during and after the realization.

**MoSCoW method**

|  |  |
| --- | --- |
| Must have | Multiple-choice questions, levels, category, progress, scoring system |
| Should have | Tailored feedback, educational explanations |
| Could have | Timer for counting down the remaining time for the game completion. |
| Will/Wish have | AI chatbot for providing further insights into the game |

**Scrum methodology**

|  |  |
| --- | --- |
| **Phase** | **Description** |
| Week 1 – Research | Doing research on the topic, exploring methods of realization, technologies, etc. |
| Week 2 – Design | Wireframing the conceptual idea and coming up with a prototype. |
| Week 3 - Implementation | Working on the actual realization of the game, considering all of the requirements. |
| Week 4 – Test and evaluation | Testing small portions of the product and improving where necessary. |

**Indirect Stakeholders**

# EDUCATIONAL INSTITUTIONS

* **Why they matter**: Schools, universities, and training centers may adopt the game as a learning tool or recommend it to students.
* **Impact**: If the game proves effective in boosting engagement or comprehension, institutions might integrate it.
* **Interest**: They’ll care about educational value, alignment with learning outcomes, and accessibility.

# PARENTS AND GUARDIANS

* **Why they matter**: Especially relevant if younger users are involved.
* **Impact**: Parents may influence whether their children use the game, monitor usage, or even provide feedback.
* **Interest**: Safety, age-appropriate content, educational benefit.

## Preconditions

* The project is extensible and maintainable.
* Development duration: 4 weeks.
* The project complies with the AI transparency regulations.

## Applied areas of knowledge

*Field Application*

|  |  |
| --- | --- |
| *Media design* | Frontend, UI/UX designing |
| *Software development*  *Game Development* | Backend with C# |
| Working with game engine |

## System requirements

* Installing the latest version of Visual Studio 2022
* Installing the latest version of Unity

## Techstack

**Includes**: Unity game engine, C#, open APIs, Figma, Visual Studio, Unity UI components.

|  |  |  |  |
| --- | --- | --- | --- |
| **Feature** | **Unity** | **Unreal Engine** | **Godot** |
| 1 Ease of use | Most beginner-  friendly; intuitive editor | Steeper learning curve; advanced terminology | Visual scripting helps, but still requires coding |
| 2 Graphics &  Rendering | Good, improving with SRP; not AAAlevel | Best-in-class photorealism; global illumination | Decent for indie games; |
| 3 Platform  Support | 25+ platforms; easy porting | Broad support; | Limited console support |
| 4 Programming  Language | C# (easy to learn) | C++ (powerful but complex) | GDScript |
| 5 Asset Store | Massive marketplace | Growing asset library | Smaller, community-driven assets |
| 6 Learning  Resources | Extensive tutorials and forums | Good documentation | Improving, but less beginner-focused |
| 7 Community  Size | Largest and most active | Large and skilled | Passionate but smaller |

*Table 1: Comparison between different game engines*

## Learning outcomes



Setting up environments

* Installing MS Visual Studio, Unity Editor.



Reporting



* Doing research on the topic, analyzing users, technical requirements.



Working with

Frameworks



* Using Unity testing framework for making unit tests.

Wireframing, prototyping

* Using platforms like Figma

Planning

* Utilizing apps like Notion for managing tasks, schudeling.

## Conclusion

With the implementation of the final product with the help of modern technologies and techniques, it highlights cognitive growth and places an emphasis on general awareness. The game offers intuitive design and experience that tests and enriches the user’s knowledge. As far as future updates are concerned, features as *adaptive levels* tailored for users by AI model*, category expansion* and *accessibility regime* might follow.

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