

Plan project: Trivia game

By: Simeon Markov

Department: ICT, Fontys UAS

Course Name: STA-OIL430-CMK

Class: EN08

Introduction

The game emphasizes on education, exploring different fields like history, physics, geography, science, etc. Its purpose is to put someone's general knowledge into test and to enrich it. The game falls under the category of puzzle games, targeting skills like logic and general awareness. I will be implementing the game using modern technologies, tools, libraries and techniques and the user experience would be the game's priority.

Keywords: education, realization, goal

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

<i>Field</i>	<i>Application</i>
<i>Media design</i>	Frontend, UI/UX designing
<i>Software development</i>	Backend with C#
<i>Game Development</i>	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, Shader component library.

Learning outcomes

Setting up environments

- Installing MS Visual Studio, Unity Editor.

Reporting

- Doing reseach on the topic, analysing user, technical requirements.

Working with component libraries

- Importing components from React, Shadcn.

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.

References

- Courage, C., & Baxter, K. (2005). Understanding Your Users: A Practical Guide to User Requirements Methods, Tools & Techniques. Morgan Kaufmann.
- Copilot AI, chat for Indirect stakeholders.