Software Description and Requirements (Group 21)

Description:

The software idea of our group is to make a quiz game which would contain questions from programming, machine learning and software engineering in general. This quiz game can be used to test your computer science knowledge in different areas. This quiz game would work in a way that every question would be a multiple-choice question with a correct answer. The player can give either a correct or incorrect answer and still proceed to the next question. However, giving an incorrect answer would cost them some penalty. The penalty is in the form of life (hearts). Every player would start with 3 lives or hearts. The incorrect answer would also give a descriptive text about why the answer is incorrect. The player would also have a timer running for every question (like 10-30 seconds based on the difficulty of the question). If the timer runs out, they will lose a heart. We will also include a points system in which the player earns points for giving a correct answer. These points can later be spent on unlocking the next quiz. The next quiz would be of a different field/subject than the first one. Once a new quiz is unlocked by paying the points, the points will be deducted, and the remaining balance is shown. If a player answers all the questions in a quiz without losing all their lives, they will get extra points.

Features:

- Timer to make you answer quickly.
- Heart/lives system to allow 3 incorrect guesses or timer runouts.
- Point based system, where the player can use the earned points to unlock more quizzes.
- More rewards for completing a quiz without losing all your lives.

Requirements:

- We would need a dataset in the form of a csv file that would contain a set of questions, options, answers and difficulty.
- We would like to make a simple GUI for this quiz that would display the question and options, the timer, lives and points earned.
- We want the app to be operated with mouse clicks and mouse movements.
- We also want to save the progress of points and unlocked quizzes for the user.

Future updates options:

- We can add leaderboards with names and high scores for a certain quiz.

References:

We got this idea from a game on google that has a similar concept of a quiz game. This game can help you visualize what the software concept is like.

https://gameoftheyear.withgoogle.com/