CMPE202- Team Project

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Requirement Analysis.

- **Introduction:**

  This project aims at developing a game with the usage of appropriate design patterns. We have hence finalised to design a 3-D game. It is third person shooter game based in an alien constructed world. The aim will be shooting the numbered boxes to sum the addition to be hundred within the given time constraints and assigned health.

- **Objective:**

  The "Key Focus" of this project is for you to explore how Design Patterns apply to a project and also to practice Agile (Kanban/Scrum Hybrid) in a team project setting**.**

- **Functional Requirements :**

  Considering this as the initial phase and sprint#1 the requirement may vary moving further.

  1. User should be able to choose between the difficulty levels: Easy Medium Difficult.
  2. Creation of various elements: an animated solider should representing and following user direction, various objects representing the obstacles (enemies), numbered elements to be shot.
  3. Planning strategy at different level: Target score, points assigned, appearance of values on boxes, time assigned and health will vary with the difficulty level.
  4. Increase in appearance of number of obstacles with the difficulty level.
  5. Setting the won and lost criteria: Winning when aim is achieved and lost when sum is not equal to hundred and also when the health is completely exhausted.

- **Non Functional Requirements:**

  1. Developing the game with better performance.
  2. Maintenance of appropriate documentation at every phase of development cycle.
  3. Resources, security(backup and firewall), and quality assurance are other non-functional constraints to be considered.

- **Description of approach:**

  1. Studying various design patterns and find out the most appropriate list of design patterns.
  2. Studying agile methodologies and practising the same.
  3. Distribute design patterns and modules in the team.
  4. Incremental approach of delivering the functionalities: distributing tasks across all sprints (4 weeks).
  5. Testing various use cases.
  6. Creation of design documents.