Game Design Document

Finance Management Game

Problem Statement

Underprivileged students who receive scholarships from Singapore's lowest income groups lack the necessary financial management skills to effectively manage their limited funds. As a result, they often have difficulty budgeting, deplete their funds quickly. This problem can be addressed by developing a financial literacy game that helps students develop personal budgeting skills, track expenses, and make informed financial decisions.

Core concept

This 2D simulation game challenges players to manage their finances on a daily basis. Various scenarios will be presented to players, such as going to class, taking bus, spending time with friends, etc. They will have to make choices about how to spend their time and money, and these choices will affect their overall financial health. Players will aim to maintain financial stability and achieve high self-satisfaction score.

Design pillars

- The game will use simple, 2D graphics to create a relatable experience for players.
- Players will encounter a variety of scenarios throughout the game, each with its own unique challenges and rewards.
- Players will have freedom to choose how they want to play the game. They can choose which scenarios to participate in, how to spend their time and money, and even which memberships to purchase.
- Players will encounter interactive obstacles throughout the game. These obstacles will require players to think strategically and make quick decisions to overcome them.

Target platform & target audience

- Target Platform: The game will be available on Windows
- Target Audience: The game is targeted at Students who are interested in learning more about financial management.

Interface & controls

- Controls: Mouse and keyboard controls.
- Interface: Simple, intuitive interface that is easy to learn and use.

Development Platform

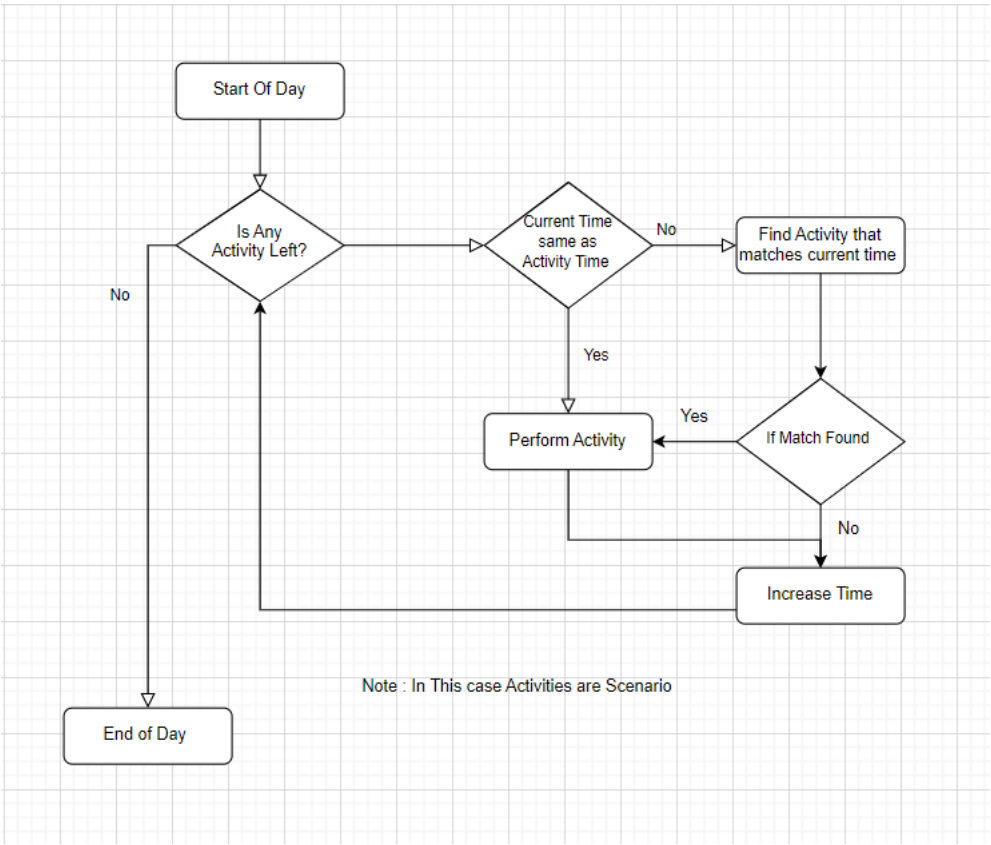
- Unity/ Unreal Engine
- Windows

Game Flow

- The game presents a series of 2D scenarios such as Classroom, Inside Bus, Outside with Friends, Store, Movie Theatre, etc, and you must choose whether to participate or skip them.
- If you take part in them, then your self-satisfaction score increases but you lose money. There is no penalty for not taking part in any of the events.
- A 30-day cycle represents each month, with players receiving income at the start of each month. Running out of funds results in a game over.
- Players allocate their time in 16-hour intervals, with 8 hours dedicated to sleep. Each hour of game time corresponds to 1 minute of real-time unless awaiting user response.
- It’s not required that each hour be used, you can skip it.
- Some scenarios present obstacles, such as friends inviting players to a movie while attending class. Accepting the invitation activates the movie scenario for the weekend. There are some activities which can be skipped and others where you can actively take part.
- Skipped activated include activities such as travel, classroom time unless you encounter an obstacle, etc.
- Interactive activities include job scenes (speed-based button-clicking game) and study time (quiz mechanics).
- There are activities which require you to spent your funds, such as food requirement cloth (durability based on uses), education fees, travel, etc. you can also select memberships for some of these requirements such as travel membership, food membership which can help you manage your finance
- Players' choices will affect their overall financial health, which will be measured by their self-satisfaction score and the amount of money they have saved.
- The game will end when the player either runs out of money or reaches the end of the month.

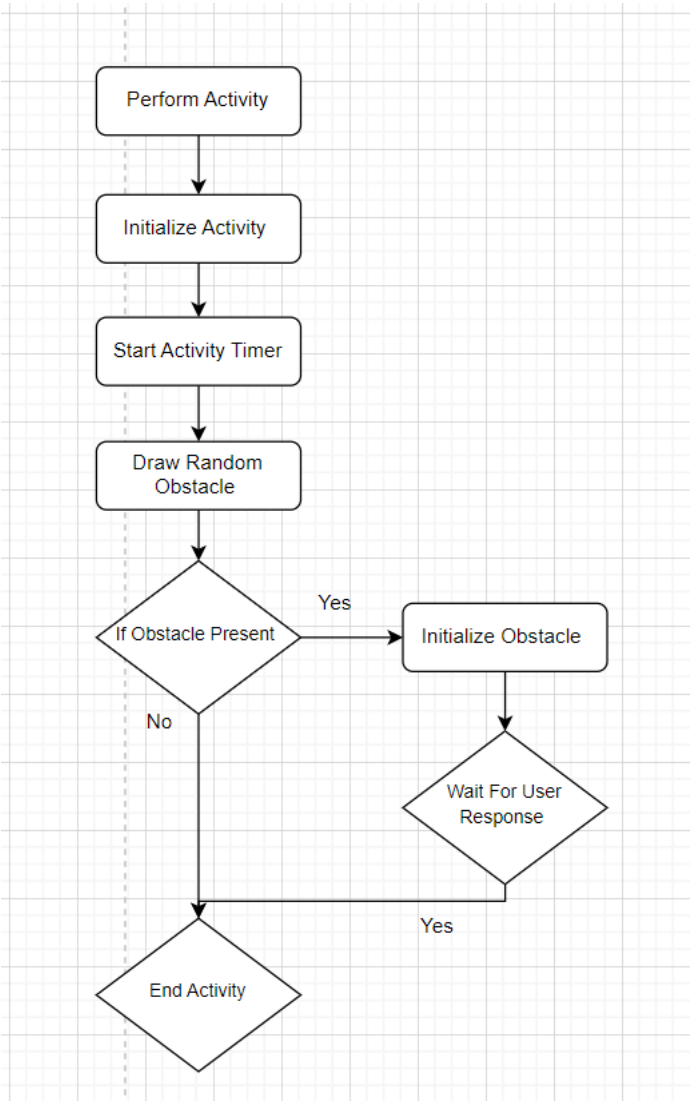
Explanation of Game Mechanics

- The game will have a calendar system where every (7n) and (7n - 1) day is a weekend, while all other days are weekdays. This will simulate a realistic schedule for students.
- Each Day will have a list of activities which can be edited on the same day or any day prior to it. These activities will represent different scenarios players can engage in.
- The game will check the current time of day and match it with the corresponding activity in the list. In the event that a match is found, that activity will be executed



- Each activity has a list of obstacles, and when an activity is performed, a random obstacle will be selected based on weight that has been assigned to that obstacle, if Obstacle is null then game will more to next activity, else perform that obstacle.
- Obstacles are of 2 categories Immediate or Scheduled. Immediate Obstacle are obstacles such as “You are in a store and found an item you like, will you buy it or ignore it? “, these Obstacle required immediate solutions. Scheduled Obstacles are obstacles such as “a friend of yours has invited you to go out for a movie, do you accept his invitation or decline it?”

- A static class called Score Manger will be used to manage various aspects of the game , including the players self-satisfactory level, personal finance and It will also keep track of extra indicators such as investments, education score, etc.
- In case activities like Quiz, question and answers will be read through a excel sheet that will be linked with the project. This aspect will helps us better modify and control Quiz questions



Visual style

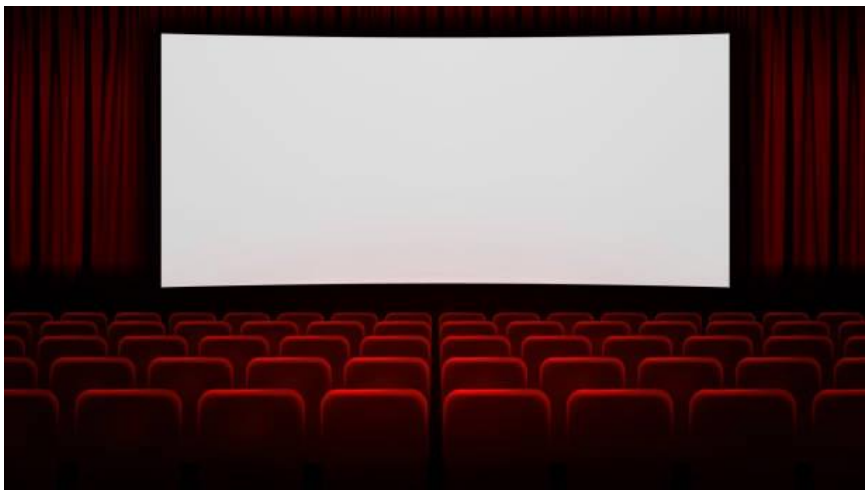
- Each scenario will be represented by a static image
- Each scenario will have a scenario based Ambient noise.
- The interactive UI will be simple and easy to use.

Development timeline

- Day 1: Implement scenario, obstacle logic and StateMachine.
- Day 2: Implement score manager, membership and timeline management system.
- Day 3: Implement quiz mechanics and job (keyboard game) mechanics.
- Day 4: Focus on visual style, basic testing and Fix Errors.

Sample Images to be used for background of Scenarios

- Cinema



- Bus / Transport

- House/ Apartment

- Store