

TURN-BASE GAME

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Description

In this assignment, you will create a turn-based game that demonstrates a best use of Finite State Machine, and code quality. Your game should include a playable entity (character, card, etc.), a turn-based flow, an in-game user interface (UI) that clarifies turn stages, and key screens such as a start screen and end screen (displaying game statistics).

Requirement

Technical Design Document

- Write a TDD for a Turn base game and submit it with your solution
 - Provides context
 - Product requirement
 - Technical requirements
 - Game Screens
 - Good layout of required components and systems
 - Good map of how different components and systems interact with each other

Game requirements

- **Playable entity**

This entity could be a character, card, or any other interactive element suitable for your game concept.

Turn-Based Flow: Implement a character that can be controlled by the player. The character should be able to move in all directions (up, down, left, and right) within the game world.

- **Turn-Based flow**

Implement a turn-based game flow where players take alternating turns or rounds. Clearly define the rules and mechanics governing turn transitions.

- **In-Game UI**

Create an in-game user interface (UI) that provides players with essential information about the game state and turn stages. The UI should include elements like turn indicators, action buttons, and any relevant game statistics.

- **Screens**

Include the following key screens in your game:

Start Screen: A screen that welcomes players and provides options to start the game.

End Screen: Displayed when the game ends, showing game statistics such as score, turns taken, and any other relevant information.

- **Technicalities**

- At least one type of data structure should be used such as Array, List, Dictionaries, etc
- Scriptible objects
- It needs to include at least one type of inheritance (Parent-Child relationship)
- Using structure is a plus

Project submission guideline

- Create a repo on github.com with the following naming **TB-YourProjectName** (YourProjectName should be replaced by any appropriate name that suits your projects)
- The git should include your project and source code
- Git project should contain a readme.md file that indicates the following information :
 - Team members name
 - A how to play instruction
- The git should contain a Build version of your game within a .zip
- The git should include your TDD in pdf format
- Submit on Lea a text file that would contain the link to your git repository

Misc

- The game shouldn't take more than 5 min to be completed
- if that's the case please add some debug in order to go through it easily

Grade: 25%. (TDD 10% + project 15%)

Delivery Method: Lea.

Deadline: October 24

RECOMMENDED READING:

- [Writing a TDD](#)
- [Draw diagram](#)
- [TDD and GDD](#)
- [UML](#)
- [FSM](#)