

[Instructions: Remove everything that is not a heading below and fill in with your own diagrams, etc.]

1. Brief introduction __/3

The feature I am working on is updating the players over all strength boards where I will implement functions to update the score board, health bar and power ups.

After entering the battlefield, my function will initialise the score, health bar and power ups which will change throughout the game. The score depends on the coins the players collect and the coins will be visible so it will depend on the player who can grab the coins as fast as possible. The health bar will be initialised as hundred which is the highest health bar each player can have and it will decrease throughout the game depending on how the player gets hitted. There will be treasure which can affect their health bar. For the power ups, each player will have special power they will be able to use in their game but that will be just for a certain amount of time.

I am also responsible for the menu UI. The menus will be designed to make the game play as smooth as possible with all other necessary features like play, quit, pause, resume, settings. The menus will allow the user to control the game and make several game option choices and view game information as well as their profile like achievements and status.

Therefore, I am responsible for keeping track of a player's Score, Power ups time and Health Bar throughout the game.

2. Use case diagram with scenario __14

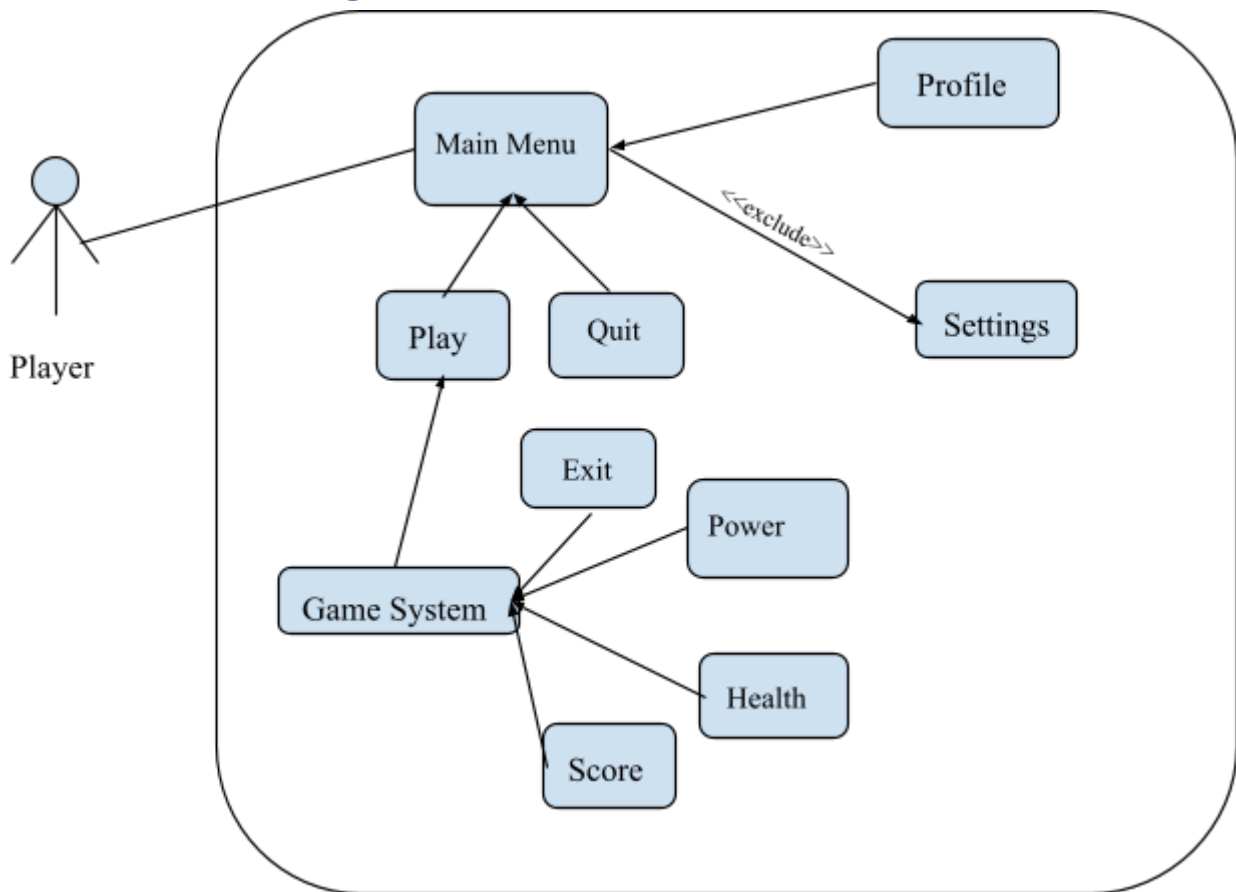
[Use the lecture notes in class.

Ensure you have at least one exception case, and that the <<extend>> matches up with the Exceptions in your scenario, and the Exception step matches your Basic Sequence step.

Also include an <<include>> that is a suitable candidate for dynamic binding]

Example:

Use Case Diagrams



Scenarios

Name: Menus

Summary: The player uses the menu to customize the game and to choose options like play and quit and also customize the game setting. They can also view their stats and achievements through the menu.

Preconditions: Game has been launched.

Basic sequence:

Step 1: The game has been launched and the player chooses the *play* option.

Step 2: If the *Play* option is chosen, the game starts and transitions to the gameplay screen..

Step 3: Once the game has been started, the player will be able to collect coins to gain a score.

Step 4: In the game, when the player will be attacked his health bar will change and the treasure will also have an effect on his health bar.

Step 5: In the game, if the player wants to use his special power, the program will have to check the power usage and also keep track of the time when using the power.

Step 6: If the *Settings* menu is chosen, the player can adjust game settings (e.g., sound, graphics).

Step 4: If the *Quit* menu is chosen, the player will exit the game.

Exceptions:

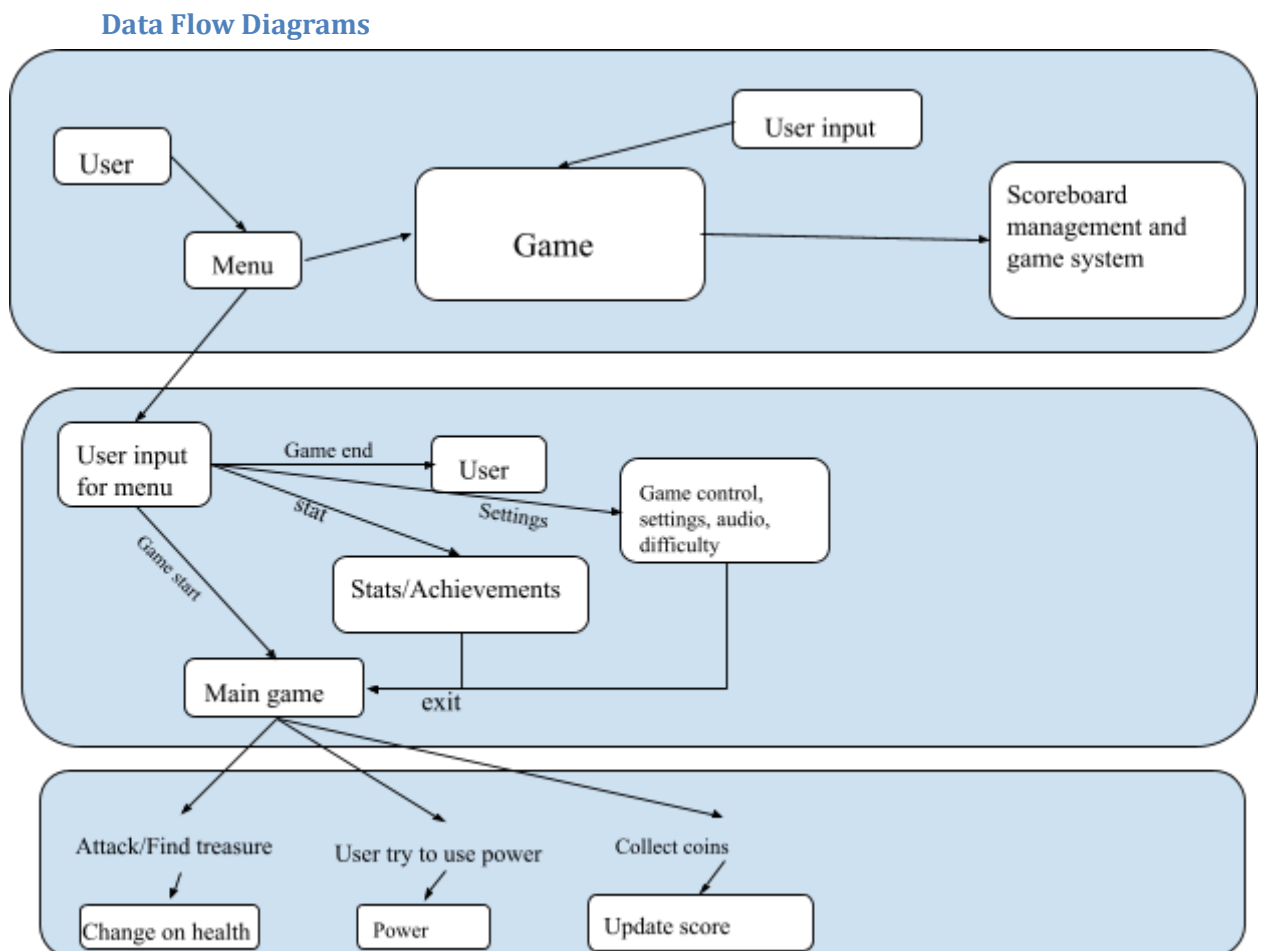
Step 1: If the player chooses the Stats and achievements option, they will be prompted with a new screen to review their game stats and achievements.

Step 2: The player will not return to the main menus again until they exit from the stats and achievements section.

3. Data Flow diagram(s) from Level 0 to process description for your feature ____14

[Get the Level 0 from your team. Highlight the path to your feature]

Example:



Process Descriptions

1. The main menu accepts player input (e.g., Start, Settings, View Stats, Quit). Routes the player's action to the appropriate submenu or action.

2. If the player chooses Play, it will initiate the Game Start/Quit Processing.
3. If the player chooses Stats, it will query Player Data to show progress or achievements.
4. If the player chooses Quit, it will exit the game.
5. When the coins appear in the game the players will try to grab them if they want and also they can attack each other to take the coins.
6. Whoever gets the coins first will have the score added to their profile.
7. During the attack the health bar will be affected as well.
8. Health will be initialized as hundred.
9. Throughout the game the health will be changed.
10. Depending on the injured spot, health will decrease.
11. There will be hidden treasure in the game if the player can find that depending on the treasure their health will change. Some treasure can be poisonous and lower their health bar and some can be beneficial that will increase their health bar.
12. Health bars can not go over 100 and it is essential to decide who will win.

4. Acceptance Tests _____9

[Describe the inputs and outputs of the tests you will run. Ensure you cover all the boundary cases.]

Goal : Ensure the game menu system is functioning correctly, including selecting options (Play, Settings, Stats, Quit), adjusting settings, and starting/ending the game and the player's profile has been updated throughout the game depending on their moves.

Steps :

- 850854400. Launch the game.
- 850854401. Open the main menu.
- 850854402. Select each menu option in turn (Play, Settings, Stats, Quit).
- 850854403. Verify the correct transition after each selection (e.g., starting the game, opening the settings menu, showing stats, quitting the game).
- 850854404. Launch the game.
- 850854405. Get hit or find treasures then change on health bar
- 850854406. Coins appear, try to collect them, if collision happens then health bar changes
- 850854407. Try to use the special power and check how much has been used, keep track of the time for each use.

Expected Results :

- 850855360. The system should navigate to the correct screen when each menu option is selected.
- 850855361. The game should start when the Play option is selected.

850855362. The Settings menu should open when selected, and changes should be applied when saved.
850855363. The Stats menu should display the player's current stats and achievements.
850855364. Selecting Quit should prompt the player to confirm quitting and then exit the game.
850855365. Game is ongoing
850855366. Change on Health
850855367. Change on Score
850855368. Power ups updated.

Menu feature

Test ID	Test Descriptions	Steps	Expected Results
T01	Menu Navigation	1. Launch the game. 2. Open the main menu. 3. Select each menu option (Play, Settings, Stats, Quit).	- System navigates to the correct screen for each menu option. - Game starts, settings open, stats displayed, game quits.
T02	Play option	1. Select Play option from main menu	The player should be redirected to the game scene.
T03	Quit option	1. Select the Quit option from the main menu.	The player should exit the game.
T04	Setting option	1. Select <i>Settings</i> from the main menu. 2. Adjust sound and graphics settings. 3. Save changes and return to main menu.	- Settings changes are saved. - Adjusted sound and graphics settings are applied.

T06	Stats and achievement option	1. Select <i>Stats</i> from the main menu. 2. Verify stats and achievements are displayed.	- Player's stats and achievements are correctly displayed
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Tests ID	Test Description	Steps	Expected Results
T07	Score	Go collect coins. Attack opponents to get coins. Get coins or not.	1. Update score based on whether the player collected the coins or not
T08	Health Bar	Attacking any body part Attacking head Finding good Treasure Finding poisonous treasure.	1. If the player gets attacked on any body part the health bar will lower by 3. 2. If the player gets an attack on the head, the health bar will lower by 5. 3. If the player grabs beneficial treasure, it will raise his health bar by 5. 4. If the player grabs poisonous treasures the health bar will lower by 8. 5. Health bar can not exceed 100. 6. When the health bar is 0, it means game over and the player loses.
T09	Power ups	Select power to use it	1. Check for remaining powers (unused). 2. If any powers are left to use, then let the player use, otherwise show that no power remains. 3. If the player is using the power, keep track of the time, then take the power back after 5 sec.

5. Timeline _____/10

[Figure out the tasks required to complete your feature]

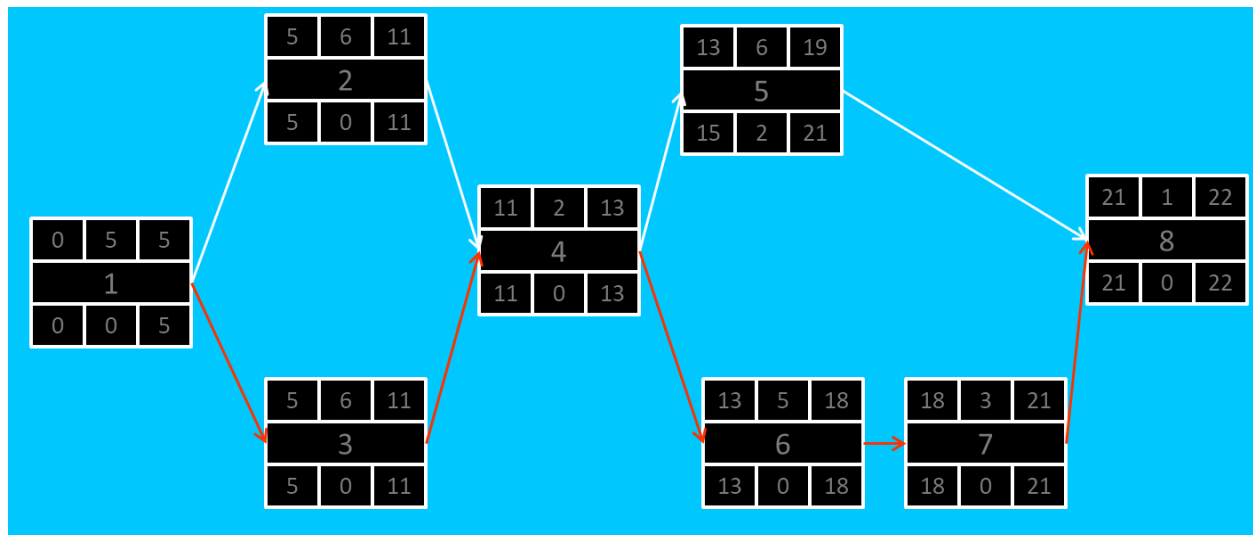
Example:

Work items

Task	Duration (hours)	Predecessor Task(s)
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1. Requirements Collection	5	-
2. Main menu Design	6	1
3. Profile boards Design	6	1
4. Diagrams	2	2, 3
5. Merge the designs	6	4
6. Pseudo programming	5	4
7. Testing	3	6
8. Installation	1	5, 7

Pert diagram



Gantt timeline

