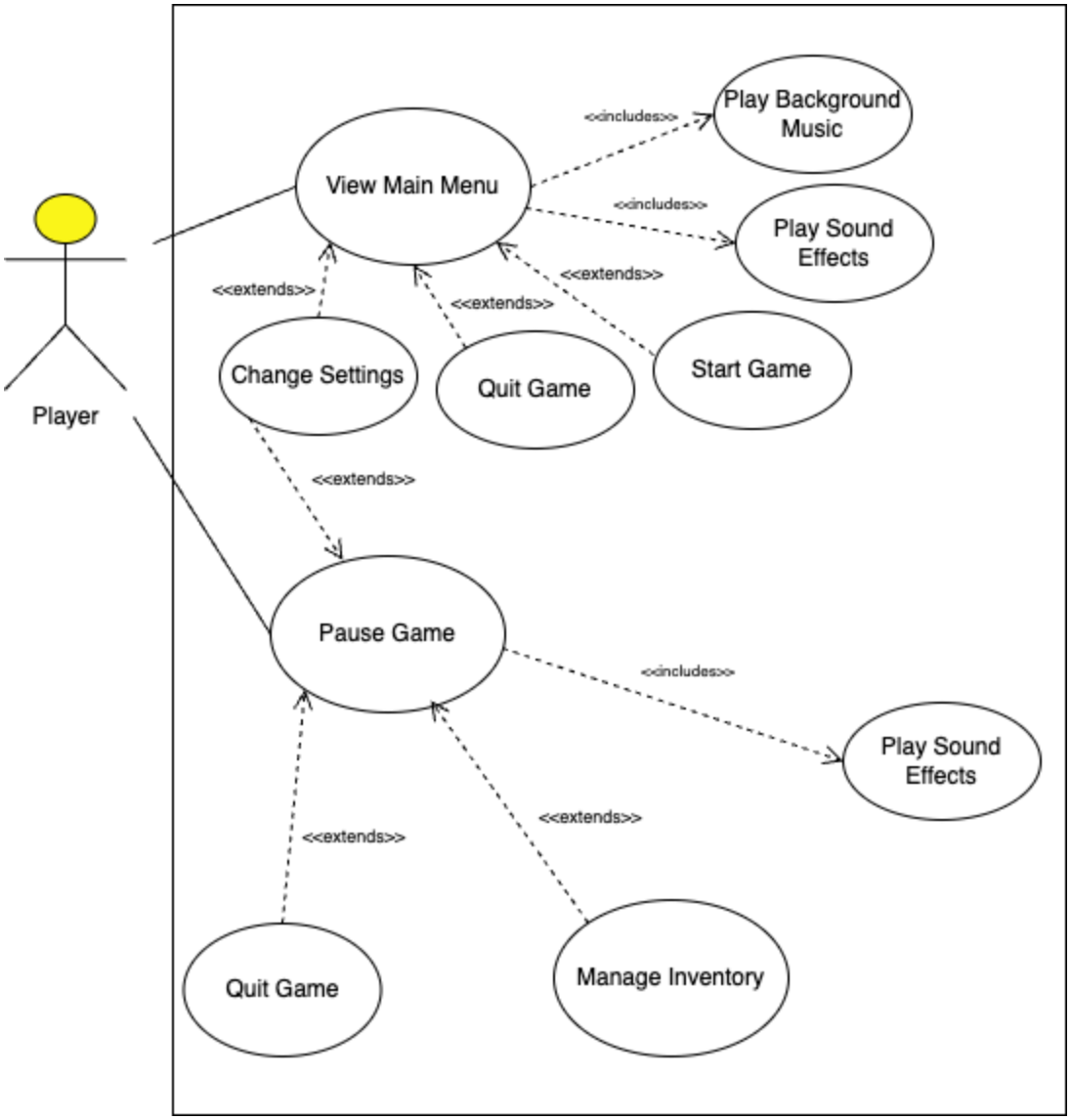
Name: Ryan Stenersen Mark _____/50

1. Brief introduction __/3

As the developer responsible for the **main menu**, **sound design** and **controls** of **Duck Quest**, my focus is on creating an immersive player experience from the moment the game starts. The main menu serves as the player's first interaction with the game, providing intuitive options to start a new game, adjust settings, view credits, or exit. Both the design for the main menu and sound is crucial in setting the game's tone and ensuring seamless navigation. Therefore, that is where I will begin to contribute to the group.

2. Use case diagram with scenario __14



Scenario

Name: Main Menu

Summary: When the player opens the game, the main menu is brought up and a list of options are given to the player.

Actors: Player

Preconditions: Game has been built and .exe has been downloaded.

Basic Sequence:

1. Duck Quest is opened
2. Main menu is displayed

3. Accept player selection
4. Move to either change game settings, start game, exit game, or credits.

Exceptions:

3.1 Player selects start game: A new game is started, the world is generated, and the game initialization process begins

3.2 Game settings: The user can choose the game volume, and adjust their control settings

3.3 Credits: A list of the creators of the game is brought up and assets involved.

3.4 Player clicks anywhere else: Nothing happens

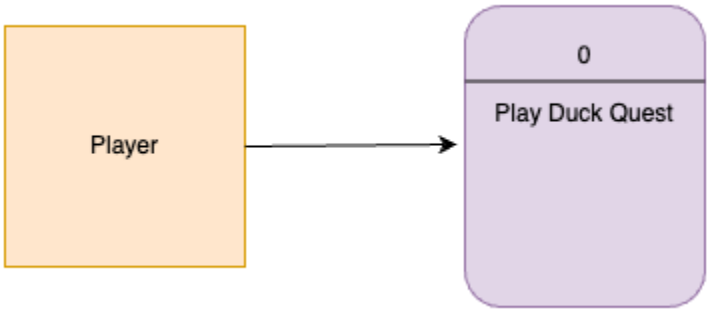
Post conditions: Game initialization and game play begins

Priority: 1

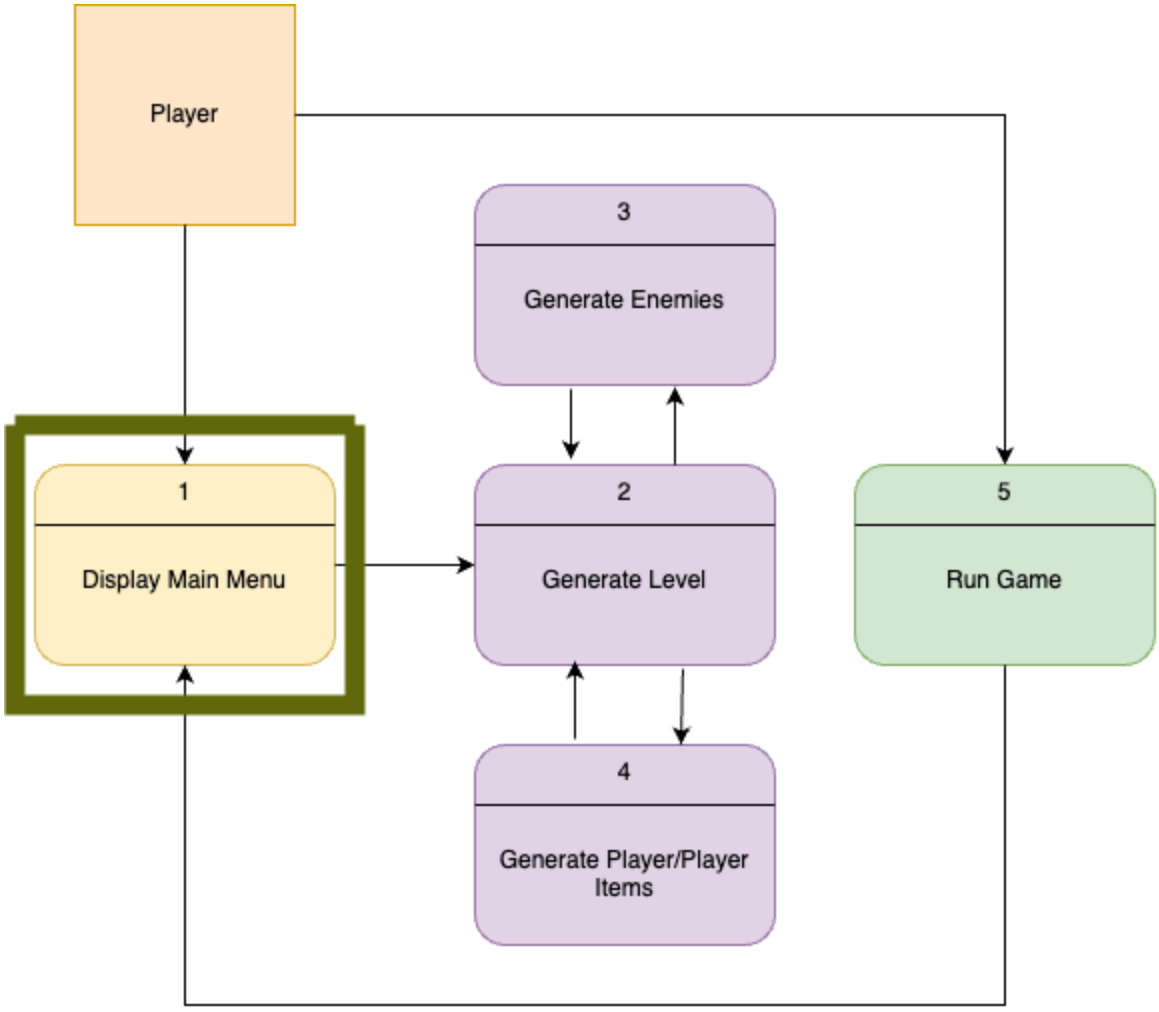
*The priorities are 1 = must have, 2 = essential, 3 = nice to have.

3. Data Flow diagram(s) from Level 0 to process description for your feature _____14

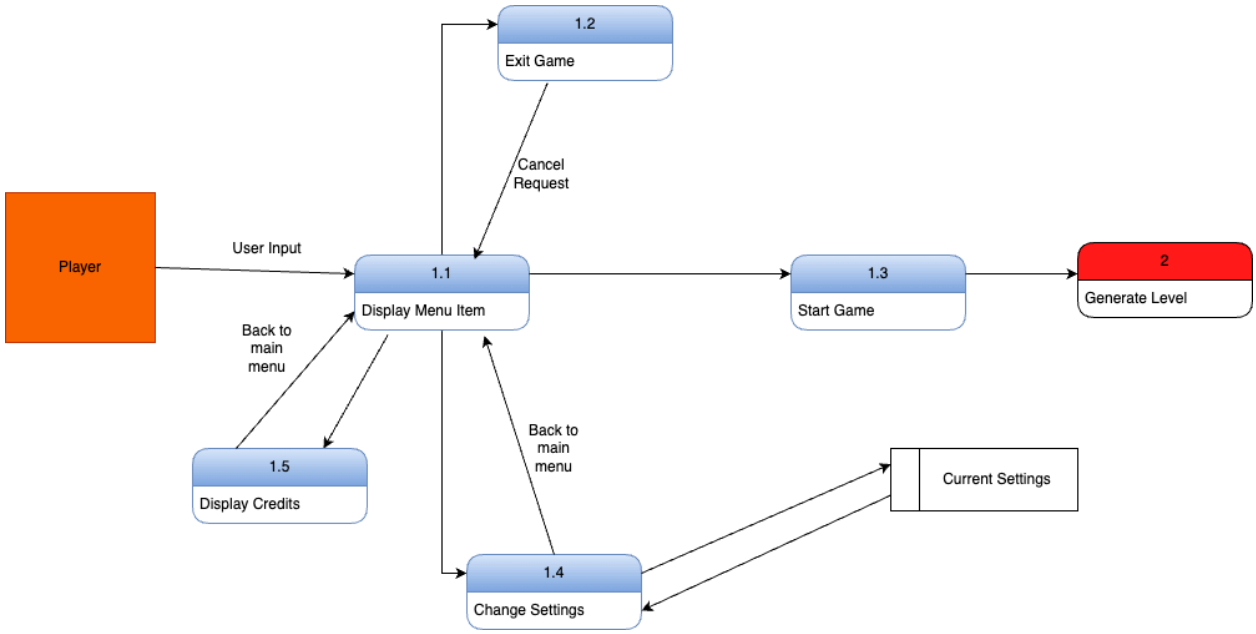
Level 0 Data Flow Diagram(Context Diagram)



Level 1 Data Flow Diagram(Diagram 0)


Player
3
Generate Enemies
1
Display Main Menu
2
Generate Level
5
Run Game
4
Generate Player/Player Items

Level 2 Data Flow Diagram



Process Descriptions

Main Menu:

Display Menu Item

If item selected

Case 1: Player selects exit game

If confirmed

exit game

else

go back to displaying menu items

Case 2: Player selects Start Game

begin next process

Case 3: Player selects change settings

retrieve current settings stored

accept new settings

go back to the main menu

Case 4: Display credits

go back to main menu

Else

Do nothing

4. Acceptance Tests _____9

Test for Main Menu

Test Case 1: Exit Game

- **Action:** Press the 'Exit' button.
- **Expected Result:** The game closes without errors. The output file contains the message "Game exited successfully."
- **Negative Case:** If the exit function fails, an error message, "Error: Exit function did not execute properly," should be logged.

Test Case 2: Start New Game

- **Action:** Press the 'Start Game' button.
- **Expected Result:** The game initializes, and the first scene loads within 2 seconds. The output file contains the message "Game initialized successfully."
- **Negative Case:** If initialization fails, an error message should specify the failure point, such as "Error: Game initialization failed at scene load."

Test Case 3: Display Credits

- **Action:** Press the 'Credits' button.
- **Expected Result:** Credits screen is displayed without errors. The output file logs "Credits displayed successfully."
- **Negative Case:** An error log should appear if the credits screen fails to display, specifying the failure point.

Test Case 4: Adjust Settings

- **Action:** Press the 'Settings' button and adjust the volume to 50%.
- **Expected Result:** Volume adjustment is reflected immediately, and the output file logs "Volume adjusted to 50%."
- **Negative Case:** If the volume adjustment fails or is not logged correctly, an error should be written to the output file: "Error: Volume adjustment not applied."

Test Case 5: Invalid Input Handling

- **Action:** Select an option that does not exist.
- **Expected Result:** The game does not crash, and no unexpected errors occur. The output file should log "Invalid option selected - no action taken."

5. Timeline _____/10

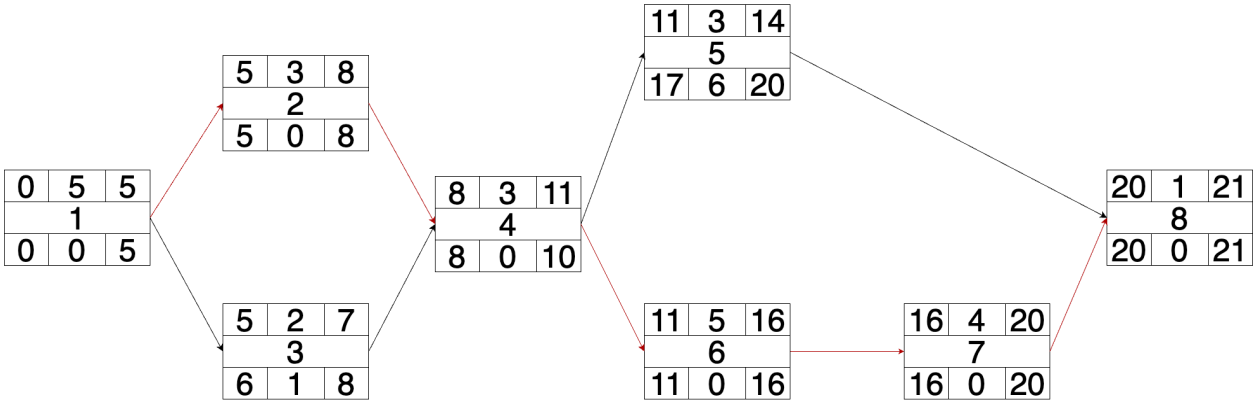
[Figure out the tasks required to complete your feature]

Example:

Work items

Task	Duration (hours)	Predecessor Task(s)
1. Class Diagrams and Organization	5	-
2. Main Menu Design	3	1
3. Sound Design and Assets	2	1
4. Main Menu Implementation	3	2, 3
5. Sound Integration	3	4
6. Programming/Controls	5	4
7. Testing	4	6
8. Installation	1	5, 7

Pert diagram



Gantt timeline