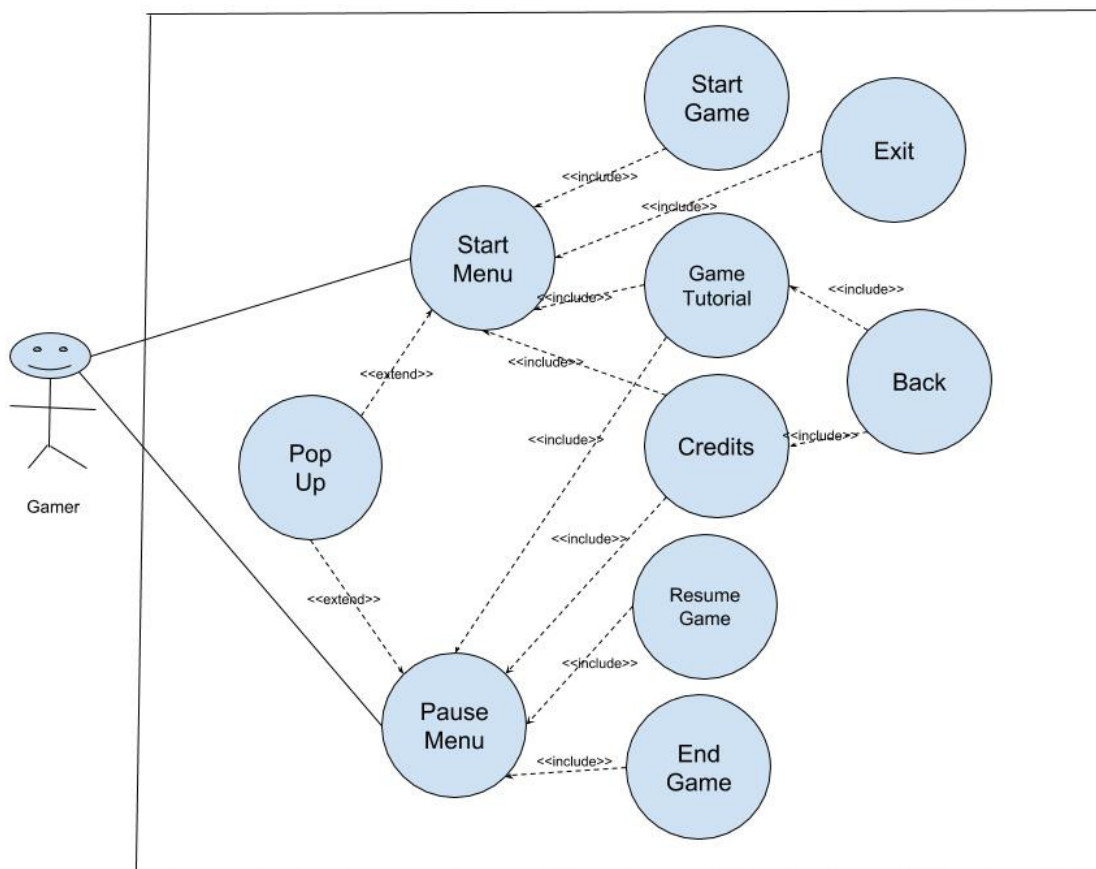Name_____Joel Berain_____   Mark _____/50

1. Brief introduction __/3

I will be designing the game menus. The gamer will interact with a start menu and a pause menu. Both menus will have their appropriate display design and features.

2. Use case diagram with scenario __14

Use Case Diagrams

Display Menu

Scenarios

Name: Start Menu

Summary: Displays several options than can be selected before gameplay.

Actors: Gamer.

Preconditions: Beginning of game has been initialized.

Basic sequence:

      Step 1: Display options.

Step 2: Accept selection through left mouse click.

Step 3: Execute selected option.

Exceptions:

Step 1: Left mouse button is pressed when the cursor is not over a menu option.

Step 2: Display pop-up message.

Post conditions: Selected option is executed.

Priority: 1*

ID: C01

Name: New Game.

Summary: Starts a new game.

Actors: Gamers.

Preconditions: "New Game" option is selected in Start Menu.

Basic sequence:

Step 1: A new game is initialized.

Post conditions: New game is in play.

Priority: 1*

ID: DS01

Name: Exit.

Summary: Exits game application.

Actors: Gamers

Preconditions: "Exit Game" option is selected in Start Menu.

Basic sequence:

Step 1: Game application closes.

Post conditions: Selected option is executed.

Priority: 3*

ID: DS02

Name: Game Tutorial.

Summary: A tutorial is displayed that describes game rules and gameplay controls. The "Back" option is available.

Actors: Gamers.

Preconditions: "Game Tutorial" is selected in Start Menu or Pause Menu.

Basic sequence:

Step 1: Display tutorial and "Back" option.

Step 2: Wait for "Back" option to be selected.

Step 3: Exit tutorial and display appropriate menu.

Exceptions:

Step 1: Left mouse button is pressed when cursor is not over a "Back" option.

Step 2: Display pop-up menu.

Post conditions: Tutorial is displayed.

Priority: 2*

ID: DS03

Name: Credits.
Summary: Displays game production information such as it's creators.
Actors: Gamers.
Preconditions: "Credits" option is selected in the Start Menu or Pause Menu.
Basic sequence:

    Step 1: Display game production information.
    Step 2: Wait for "Back" option to be selected.
    Step 3: Exit credits and display appropriate menu.

Exceptions:

    Step 1: Left mouse button is pressed when cursor is not over "Back" option.
    Step 2: Display pop-up menu.

Post conditions: Game production information is displayed.
Priority: 3*
ID: DS04

Name: Pop-up Message.
Summary: Displays an exception message when the left mouse button is pressed and the cursor is not over an appropriate selection.
Actors: Gamers.
Preconditions: Start Menu, Pause Menu, Game Tutorial, or Credits or is displayed.
Basic sequence:

    Step 1: Left mouse button is pressed when cursor is not over an appropriate selection.
    Step 2: Pop-up message is displayed.
    Step 3: Pop-up message disappears after a set time.

Exceptions:

    Step 1: Left mouse button is pressed when cursor is outside of game display: input not received.

Post conditions: Pop-up message disappears.
Priority: 3*
ID: DS05

Name: Back.
Summary: Displays the previous menu.
Actors: Gamers.
Preconditions: The "Back" option is selected in Game Tutorial or Credits.
Basic sequence:

    Step 1: Display previous menu.

Post conditions: The appropriate Game Menu is displayed.
Priority: 2*

ID: DS06

Name: Pause Menu.
Summary: Displays several options that can be selected during gameplay.
Actors: Gamers.
Preconditions: "P" is inputted through keyboard during gameplay.
Basic sequence:
    Step 1: Display options.
    Step 2: Accept selection through left mouse click.
    Step 3: Execute selected option.
Exceptions:
    Step 1: Left mouse button is pressed when cursor is not over a menu option.
    Step 2: Display pop-up menu.
Post conditions: Selected option is executed.
Priority: 2*
ID: DS07

Name: Resume Game.
Summary: Resumes gameplay for current game.
Actors: Gamers.
Preconditions: Pause Menu is displayed.
Basic sequence:
    Step 1: Left mouse button is pressed when cursor is over the "Resume Game" option.
    Step 2: Gameplay for current game is resumed.
Post conditions: Game is in play.
Priority: 3*
ID: DS08

Name: End Game.
Summary: Gameplay for current game ends and the Start Menu is loaded.
Actors: Gamers.
Preconditions: Pause menu is displayed.
Basic sequence:
    Step 1: Left mouse button is pressed when cursor is over the "End Game" option.
    Step 2: Game ends.
    Step 3: Start Menu is displayed.
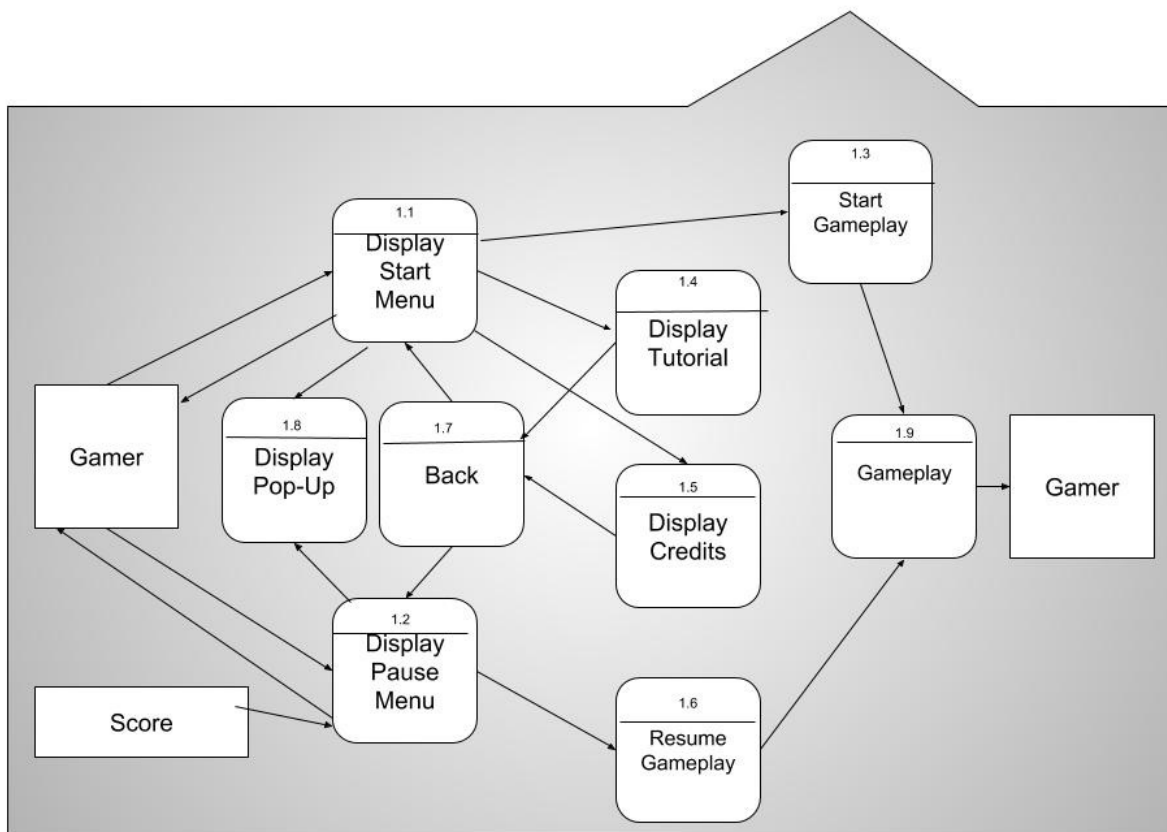**Post conditions:** Start Menu is displayed.
Priority: 3*
ID: DS09

*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

Data Flow Diagrams

Display Menu

Process Descriptions

Display Start Menu:

WHILE gamer has not selected option DO

display the start menu

GET input from left mouse button

IF gamer selects **Start Game Play** DO

start game
IF gamer selects **Display Tutorial** DO
While gamer has not selected back option DO
Display Tutorial
END WHILE
IF gamer selects **Display Credits** DO
While gamer has not selected back option DO
Display Credits
END WHILE
IF gamer selects **Exit** DO
Exit
IF gamer selects invalid option DO
FOR 5 second DO
Display Pop-up
END WHILE

Display Pause Menu:
WHILE gamer has not selected option DO
display the pause menu
display the score
GET input from left mouse button
IF gamer selects **Resume Gameplay** DO
Resume Gameplay
IF gamer selects **Display Tutorial** DO
While gamer has not selected back option DO
Display Tutorial
END WHILE
IF gamer selects **Display Credits** DO
While gamer has not selected back option DO
Display Credits
END WHILE
IF gamer selects invalid option DO
FOR 5 second DO
Display Pop-up

Acceptance Tests _____9

Test Start Menu:

- Ensure design is correct

- Select each option and functionality on the Start Menu to ensure each option executes its intended purpose.
- Perform every action that should result in the display of the start menu to ensure start menu displays at proper time:
  + New game initialization
  + Appropriate back option selection
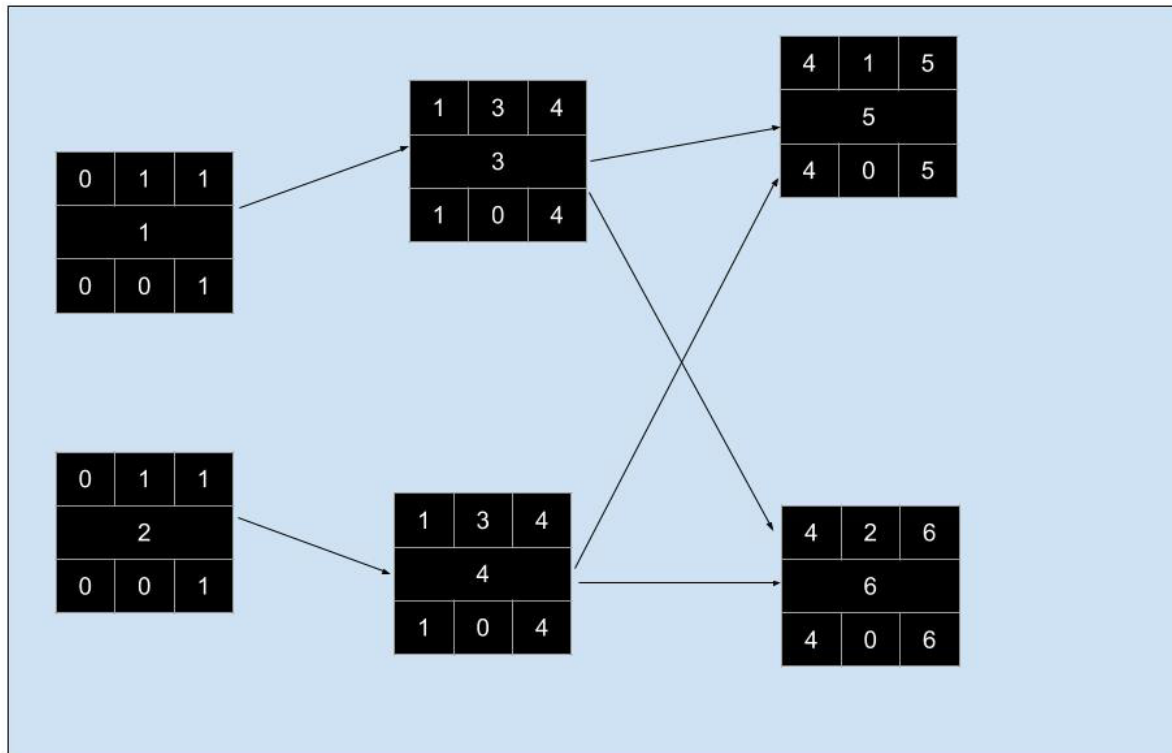 + New game selection

Test Pause Menu:

- Ensure design is correct
- Select each option and functionality on the Start Menu to ensure each option executes its intended purpose.
- Perform every action that should result in the display of the pause menu to ensure pause menu displays at proper time:
  + Gamer pauses during gameplay
  + Appropriate back option selection

4. Timeline _____/10

Work items

Task	Duration (PWks)	Predecessor Task(s)
1. Start Menu Design	1	-
2. Pause Menu Design	1	-
3. Start Menu Features	3	1
4. Pause Menu Features	3	2
5. User Documentation	1	1, 2, 3, 4
6. Testing	2	1, 2, 3, 4

Pert diagram

Gantt timeline

	1	2	3	4	5	6	7	8	9
1									
2									
3		1							
4		2							
5					3 & 4				
6					3 & 4				