

Name _____ Mark Eldridge _____

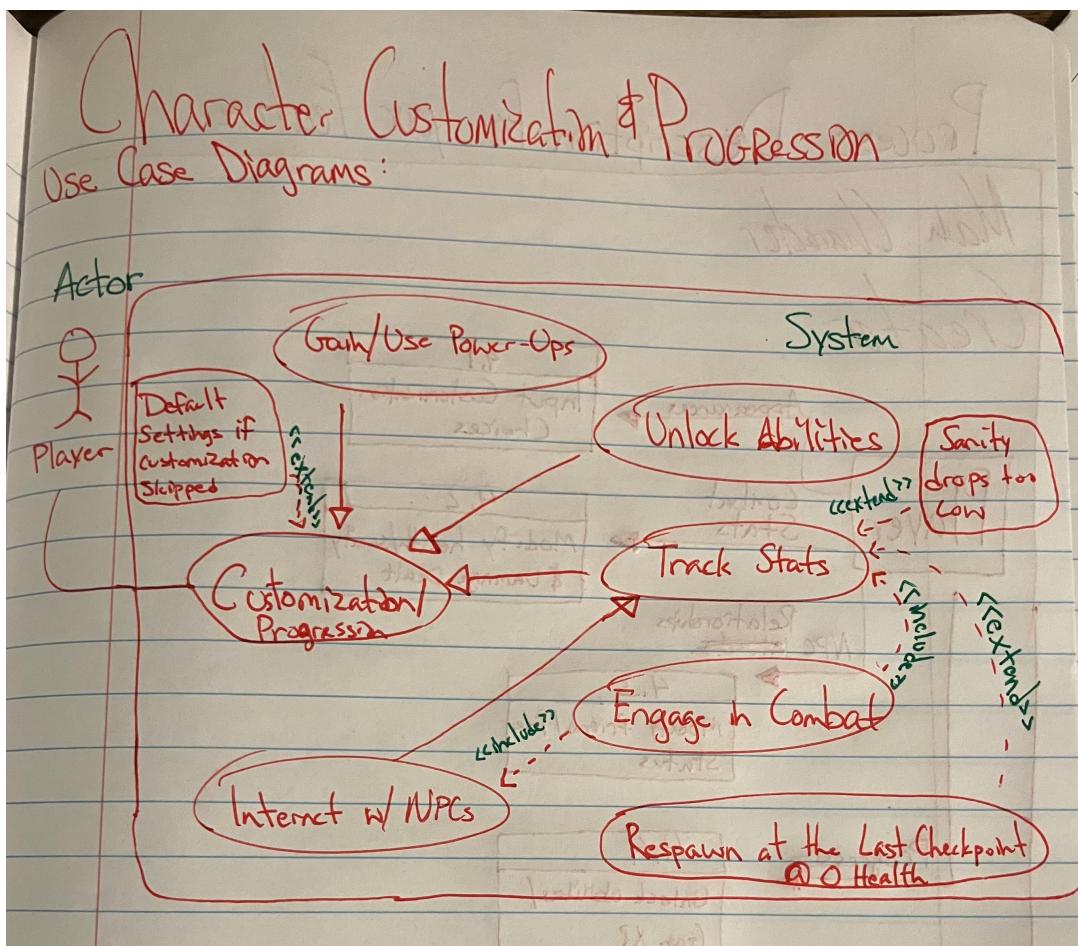
Mark _____ /50

1. Brief introduction _3

My feature will implement a character customization and progression system for the game. Players will modify "Red's" appearance, and their stats will be affected by interactions, combat, and power-ups.

2. Use case diagram with scenario _14

Use Case Diagrams



Scenarios

[You will need a scenario for each use case]

Name: Character Customization and Progression

Summary: The player customizes their character and progresses through the game, gaining new abilities and stats.

Actors: Player

Preconditions: The game must be in the character customization or progression phase.

Basic sequence:

- Step 1: Player selects customization options for Red (hair, outfit, colors)
- Step 2: Player engages in combat or interacts with items
- Step 3: Player gains or loses health and sanity based on combat or item interactions
- Step 4: Player unlocks new abilities or passive upgrades based on progression
- Step 5: Game updates stats and stores progression

Exceptions:

- Step 1: If the player skips customization, default settings are applied
- Step 2: If health reaches zero, Red respawns at the last checkpoint
- Step 3: If sanity drops too low, Red experiences negative effects.

Post conditions: Calculated value is displayed.

Priority:

3*: Player Customization (changing Red's outfit)

1*: Progression (storing game stats)

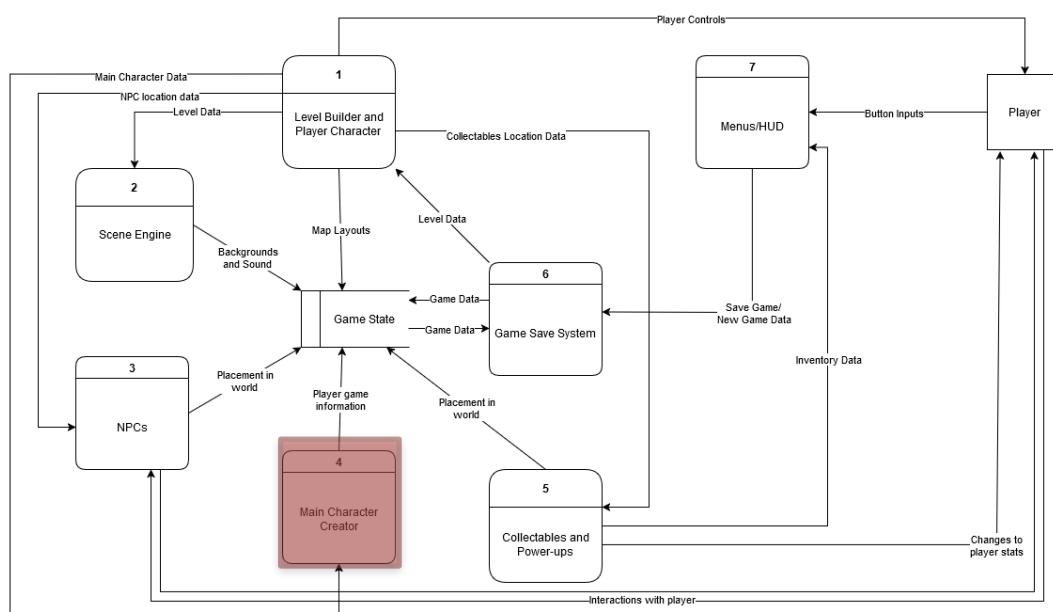
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*The priorities are 1 = must have, 2 = essential, 3 = nice to have.

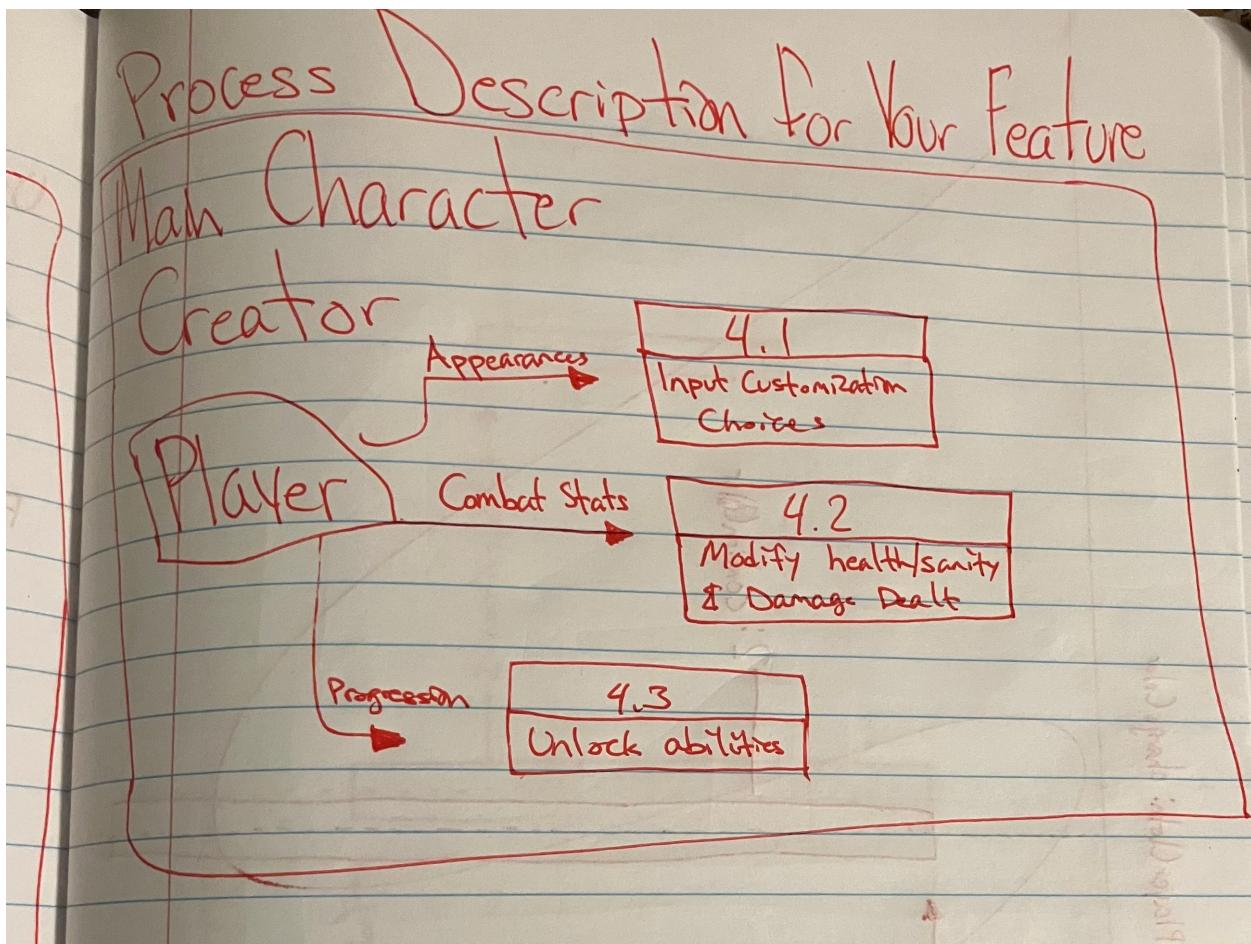
3. Data Flow diagram(s) from Level 0 to process description for your feature

14

Data Flow Diagram - Level 0



Data Flow Diagram Level 1 - Main Character Creator



Process Descriptions

- **Appearances:**
 1. Player selects appearance options.
 2. Game updates Red's model and stores selections.
 3. Stats are adjusted based on choices (e.g., heavier armor reduces speed).
- **Combat Stats Update Process:**
 1. Player enters combat.
 2. Damage dealt/received updates health and sanity.

3. If health reaches zero, trigger respawn.
4. If sanity drops, apply negative effects.

- **Progression:**

1. Player gains XP or completes quests.
2. New abilities or passive upgrades unlock.
3. Changes are stored and reflected in gameplay.

4. Acceptance Tests 9

1. Verify customization options properly update Red's appearance
2. Ensure stats (health, sanity, power-ups) update correctly in combat
4. Check that unlocking abilities works as intended
5. Confirm that progression saves and loads correctly

5. Timeline /10

Week 1: Basic character customization UI, tracking player stats

Week 2: Expand customization and implement stat tracking for combat and power-ups

Week 3: Adjust customization to modify base stats, finalize health/sanity tracking

Week 4: Implement NPC tracking and ability progression

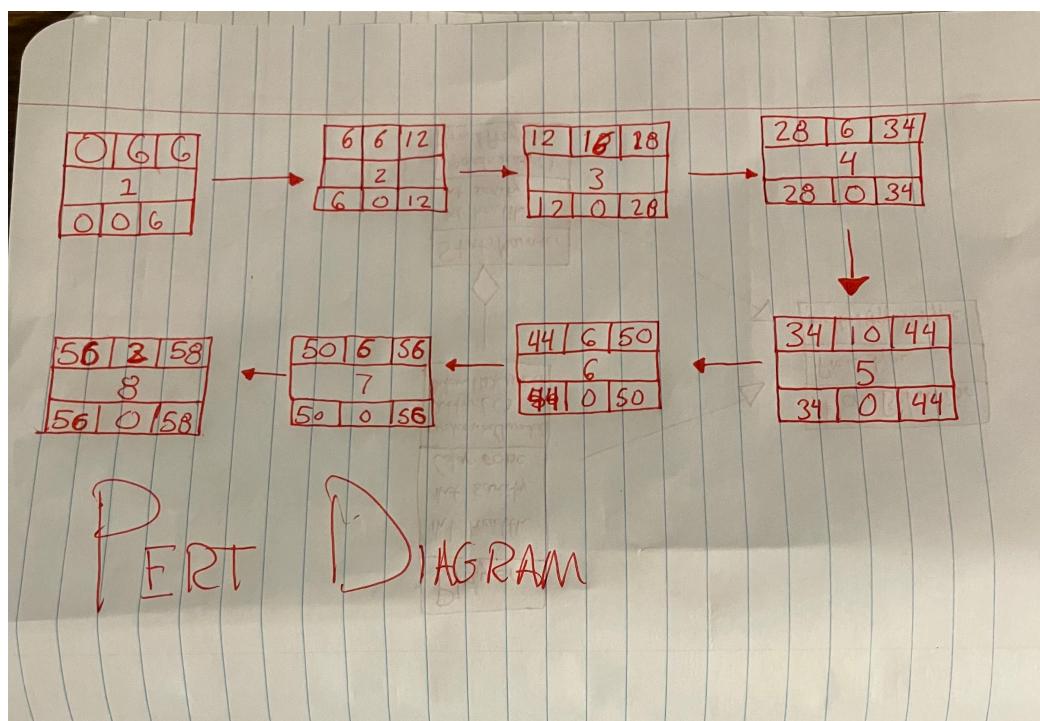
Week 5: Finalize customization, stat tracking, and NPC influence on gameplay

Week 6: Conduct testing for character progression, stats, and customization

Work items

Task	Duration (Hours)	Predecessor Task(s)
1. Basic Character Customization	6	-
2. Expand Character Customization (Track Combat Stat, etc.)	6	1
3. Enable Basic Character Progression (Gaining XP, etc.)	16	2
4. Expand Character Progression (Track Power-Ups, etc.)	6	3
5. Implement NPC tracking	10	2,3,4
6. Finalize Special Cases (Respawning when Health == 0, etc.)	6	2, 5
7. Finalize Tracking Stats	6	1,2,3,4,5,6
8. Testing	2	1,2,3,4,5,6,7

Pert diagram



Gantt timeline

