**Test Plan**

| Tasks | Player/Game Actions | Expected Outcomes |
| --- | --- | --- |
| Creative Component 1:  Audio | Audio feedback for interactions:   * Player taking damage * Player attacks enemy * Player getting hit by projectile * Collecting xp/coins * Entering upgrade menu * Using Power up * Going through door to next level * Pressing menu/elevator button * Final boss summoning new wave of enemies | Associated audio effect plays on interaction event |
| Background music | Plays when fighting enemies. Stops when all enemies are killed and level is beaten |
| Creative Component 2:  Reloadability | Complete a stage, selecting upgrades as the player levels up. | In the new level, previously selected upgrades will be retained and the most recent level beaten is saved on exit and reloadable in the game menu. |
| Creative Component 3:  Story elements | When beating a level, the tenant appears, whom player can find and then press ‘E’ to speak to. | The tenants will describe what is happening in the story (why the apartment is infested with monsters and dark magic) and guide the player on the next steps in the story.  Each tenant has one series of dialogue that the player is frozen for as they go through the conversation, and one or two pieces of extra dialogue that can be read singularly.  The dialogue and sprites for each tenant vary by level. |
| Playability | Start Screen | Start screen is displayed upon opening the game |
| 4 regular levels | Each level has a unique map and a unique tenant that gives the player a cutscene to progress the story |
| Last (5th) level: final boss level | Last level is a final boss level with 3 different stages of gameplay. First stage is just the final boss and beetle swarms. Second stage has the boss summon a wave of enemies. Third stage summons more waves of enemies and the boss starts using a dash attack. |
|  | Progressive, non-repetitive gameplay is sustained for at least 10 minutes |
| Stability | Game resolution and aspect ratio | Remains consistent across different machines/displays |
| Continuous gameplay and termination | Is continuous and graceful with no crashes, glitches, or unpredictable behaviour |
| User Experience: Tutorial | Upon opening game, user is taken through the tutorial of the game mechanics | * All the steps of the tutorial are displayed in order after opening the game unless player decides to skip it * Tutorial is self-explanatory with no verbal explanation needed. |
| Press “T” while tutorial is running | Tutorial is successfully skipped and player can continue gameplay as normal |
| User Experience: Powerup | When the player kills an enemy, it drops a powerup with a 35% chance | * More than one powerup does not appear on the map ever * Powerups do not drop when the player has a powerup equipped * Approaching a powerup closely enough causes it to get pulled in * Powerup gives the player the mentioned buff |
| User Experience: Enemy Line of Sight | Break enemy line of sight by hiding behind furniture | Enemy will stop chasing/shooting the player. |
| New Features: Upgrades | 1. Player gains enough xp 2. Upgrade menu opens 3. User selects upgrade 4. Pressed button at bottom of screen | Upgrade specified is correctly applied  New upgrades were added in this milestone:  +50 damage  +100 collect dist  +100 exp gain  +25 attack size  -20 attack cost  -25 dash cost  +1 lifesteal  +20 crit chance |
| New Features: Enemy types | Red crab | Charges up briefly, then dashes quickly in direction of the player |
| New Feature: Damage numbers | 1. Left click on enemy | If successfully attacks an enemy, the damage number pops up above the enemy indicating how much damage it took. |
| Updated Feature: Pause | Press “P” | If the game is not paused, the game is then paused and gives the player the option to go to the menu or to unpause the game.  If the game is paused, unpauses the game.  (Control is no longer esc key) |
| New Feature: Menu Screen | When the game is paused, the player can press “ESC” to go to a menu screen. | The player can click any of the five level buttons.   * If the level is not unlocked (has not been played before), the display will indicate that the player is unable to go there right now. * If the level is unlocked, the level number will briefly flash on the screen and then take the player to the level.   The player can click the “EXIT” button to exit the game. |
| Updated Feature: Game Over Screen | If the player dies, they are taken to a new game over screen. | The player can either press R to restart the level or press ESC to go to the menu screen. |
| New Feature: Doors | After all enemies have been defeated, the player can find a door near the end of the map. | Interacting with the door will take the player to the next level. |
| New Feature: Holy Artifact | While killing enemies, the gem at the top of the screen gains visibility as the player gets closer to the enemy kill goal. | When the player has killed the goal amount of enemies, they can press G to use their holy artifact and kill all remaining enemies in the level. |
| Feature Update: attack swipe animation | 1. Right click to attack | Player’s attack animation is proportional to the player’s current attack size |