Test Plan - Team 6

Note: player cannot perform multiple actions at once. e.g. they cannot do heavy and light attack together; they cannot move and attack at the same time.

Player health bar at top left of screen in green.

Player energy bar at top left of screen in blue.

Energy regenerates when the player is walking and not doing any actions that require energy. For actions that require energy, read the expected behaviour below.

| **Command** | **Expected Behaviour** |
| --- | --- |
| W/up arrow | Player moves up |
| A/down arrow | Player moves down |
| S/left arrow | Player moves left |
| D/right arrow | Player moves right |
| Enter  Basic Creative Feature M4 #1 - Story elements - dialogues shown at start of game, after defeating bosses, etc. | Press Enter when in a dialogue or popup to continue/dismiss.  Dialogue will be dismissed once all text has been shown. |
| Abilities: (press the number key)  1 (stealth travel - available after defeating first boss)  2 (teleport and backstab - available after defeating second boss)  3 (rage - available after defeating third boss) | Player icon turns translucent, travels with a higher velocity than usual; Smooth animation (bezier interpolation) is used here.  Player teleports to the back of the enemy, performing a backstab that deals significant damage.  Player increase in move speed and damage  Each ability icon is shown on the bottom right of the UI. When the icon holds solid color, this ability is ready to use. If the icon turns grey, the ability is still in cooldown. The icon flashes if the ability is active. |
| Space Bar (press Space while player is moving) | Dodge in the current direction of the player. Requires energy.  Player is invincible during the dodge.  If a dodge successfully prevented the player from taking damage, it is considered a perfect dodge. A special sound is played. There is a semi-transparent player “remnant” that is left in the place of the player’s original location before the dodge, this is to indicate that you’ve done a perfect dodge.  You gain a bit of flow after a perfect dodge. |
| (Player death) | Trigger player death when health = 0;  Should change to corpse sprite;  Game reset after timer expires |
| Escape key | Exit game upon press |
| Minion AI: minions chase after player and initiate attack when player is within the attack range  There are also ranged minions that shoot arrows at the player when in range. | Minion follow player when player is close to the minion  When minion is extremely close to player, it will attack the player, dealing damage in a certain area around the minion |
| Chef Boss AI: chef patrols and attacks player | Chef goes left and right in patrol state.  When player is close to chef, chef enters combat state.  In combat state, every 3s, chef uses one of three attacks at random: throwing tomatoes, throwing a pan that returns to him on hitting wall or player, and dashing towards player. Tomatoes, pan, and the chef himself when he’s dashing, all deal damage to the player. |
| Knight Boss AI: knight patrols and attacks player | Knight goes left and right in patrol state.  When player is close to knight, knight enters combat state.  In combat state, there is a 6 second cooldown between attacks. There are 3 types of attacks.   1. Quickly dash towards player 3 times consecutively. The sword swings before and during the dash. Player will take damage if the dash hits the player. After the third dash, knight sticks his sword into the ground creating a damage field around him. Player will take damage if within the invisible damage field. 2. In 10 seconds, repeatedly dash to the player then swing sword to attack. Only the attack deals damage, dash does not deal damage. You can see knight’s head tilt towards the player during the dash, and a sword swing for the attack. 3. Hold up his shield for 3 seconds. When the shield is being held up, if player attacks the knight, shield will immediately go down and player takes some damage. |
| Prince Boss AI | * Health: 400. * 3 attacks chosen randomly, with a different cooldown after each attack.   + The prince swings his wand dealing 10 damage. Cooldown after attack: 2.5s.   + The prince teleports behind the player and quickly attacks afterwards that deals 10 damage. Cooldown after attack: 6s.   + The prince forms a field around himself, dealing 15 damage every 0.5 seconds. Cooldown after attack: 6s. * When the prince’s health bar reaches 66% and 33%, the prince’s next attack summons 5 soldiers to follow and attack the player at the minion’s damage level. The soldiers can be defeated with one hit. Cooldown after attack: 3s. |
| King Boss AI | * Surprise! This final boss respawns with stronger abilities (second phase) after being beaten. * First Phase:   + Health: 500.   + 3 attacks chosen randomly, with a different cooldown after each attack.     - Shoots a laser that spins around and deals 10 damage. Cooldown after attack: 5s.     - Dashes two times slowly towards the player and hits the player with his cane two times, dealing 10 damage. Cooldown after attack: 4s.     - Summon 2 soldiers that behave like minions. Soldiers have a health of 100 and damage of 10. Cooldown after attack: 6s. * Second Phase:   + Health: 600.   + 3 attacks chosen randomly, with a different cooldown after each attack.     - Make fire rain in an area near the player that deals 15 damage upon stepping on it. Cooldown after attack: 3s.     - Dashes towards the player’s back very fast for three times, if he bypasses the player, it deals 10 basic damage. Cooldown after attack: 4s.     - The king leaves a disguise at his original place and teleports to the player’s back and uses his cane to deal 25 damage. The player deals no damage when hitting the disguise. Cooldown after attack: 3s.   + Upon the king’s health bar reaching 66% and 33%, his next attack summons 5 soldiers that follow the player and deal 10 damage per hit. Cooldown after attack: 8s. |
| (Collision detection) | Player cannot go across the walls  Player collide with enemies  Enemies collide with enemies  Players and enemies will push each other upon colliding  Projectiles such as tomatoes and pans by the chef boss will be destroyed or bounced upon hitting walls/player. |
| Left mouse click - light attack | Attacks with your current weapon.  Requires energy.  Causes damage to enemy if weapon hits enemy during the animation;  Their health bar should reflect damage |
| Right Mouse Click (Hold) | Charge Flow (Hold to charge) - flow meter in bottom right (circular) fills up as flow charges.  Requires energy. When out of energy you will stop charging. |
| Right Mouse Click (Release with full flow) | Heavy Attack - triggers animation for heavy attack - damage caused is more than light attack.  Dagger has a different heavy attack animation than swords. |
| Mouse gesture: S gesture (draw S with left mouse button clicked) | Player becomes larger for 3 seconds, player bounding box for collision detection also enlarge to size |
| Camera movement: Moving around the map - navigate around the map | Camera follows the player - i.e Spy should always be on screen |
| P | To see FPS rendered on screen (Always visible in title otherwise) |
| O | To see help text rendered on screen;  Explains all commands |
| I (for debugging use, not part of normal gameplay) | Toggles debug mode. In debug mode you can see bounding boxes and mesh of the weapon used for collision checks.  You can also see paths of minions that are locked onto you. |
| E | Interact with fountain/treasure box.  Will heal player to full health when at a fountain.  Will open treasure box when near a closed treasure box. (Only when all enemies near it are killed)  Will take the item from the treasure box if near an open treasure box with an item inside.  Taking an item triggers a popup showing more details about the item.  Taking a weapon from a box will change player’s weapon in hand. |
| Treasure box mechanism | Treasure boxes spawn at fixed locations in the level. Their contents are randomly generated upon entering the level.  25% chance to contain: increase max health by 50.  25% chance to contain: increase max energy by 50.  50% chance to contain a weapon.  All 6 weapons can be spawned. There are 3 tiers and 2 types of weapons. Each tier has a different chance of spawning in a treasure box. The chances are different for each level. Later levels have higher chances of getting better tier weapons.  It is equally likely to get a sword or a dagger type weapon. |
| Shift (hold) | Sprint at a faster speed than walking.  Consumes energy continuously.  Will stop sprinting if energy runs out. |
| 0 (the number zero) | Pause or unpause the game.  This cannot be done during a dialogue/popup.  While paused, player cannot do any actions, and all AI and physics processing are paused. |
| R (for debugging use, not part of normal gameplay) | Reset the game to its initial state. (Reloads from save file if exists) |
| H (for debugging use, not part of normal gameplay) | Kill the current boss of the level. If on first level, kills the chef immediately. If on second level, kills the knight immediately, etc. |

Basic Creative Feature M4 #2 - Reloadability: player weapon, unlocked abilities, max health, and max energy are saved at the start of every level. If the player dies or exits the application, upon respawning/reopening, the last saved state will be restored.

Basic Creative Feature M4 #3 - Game balance: included several bug fixes and damage/health tweaks according to feedback from playtesting. For details on the feedback and changes made, refer to the milestone video or the PDF in our repo’s doc folder.