Test Cases for Trash Dash

"The testing for gameplay is a repetitive process (every new build will require testing). Usually, test cases are supposed to mainly focus on the new features. However, for these test cases, they are about the whole gameplay testing based on the gameplay logic of Trash Dash"

Functional Testing:

1. **Basic Player Control Testing:**

   a) Test if all inputs are responding correctly and reasonably.

      i. Character cannot move out of the road (3 routes in total: left, middle, right).

      ii. Character cannot jump while jumping (cannot double-jump/muti-jump).

      iii. Players can make Character slide back to the road while jumping by pressing down button.

      iv. Players can make Character jump immediately while sliding by pressing up button.

      v. Character can move left or right while jumping.

      vi. Character should respond to every input without any delay.

2. **Gameplay Logic Testing:**

   a) Test if obstacles are generated reasonably (cannot block the whole road).

   b) Test if obstacles block character correctly.

      i. Character should stop immediately once hit obstacles and reduce life point

      ii. Some obstacles (ie. rats) move functionally and correctly

   c) Powerups work correctly

      i. Different types of powerups can be activated at the same time.

ii.   Picking up the same powerups within the lasting time will refresh the time that powerup lasts.

iii.   The frequency that powerups show up is reasonable.

d) Map are generated responsively.

i.   Switching to different type of map reasonably

e) Character moves faster and faster until reaching the max speed or hit obstacles

i.   Reset speed to initial once hit by obstabcles.

3. UI Testing:

a) Test if all UI work correctly and reasonably.

i.   All UI are turned on/off correctly.

ii.   All activated buttons work as expected.

iii.   All missions are recorded correctly and replaced by new mission once completed.

iv.   Leaderboard records correct scores and sorts scores appropriately.

v.   Players can adjust the things listed in Setting responsibly

vi.   Scores are recorded immediately and correctly while playing(running)

vii.   Life hearts UI works reasonably.

viii.   Tutorials work as expected and will not show up once players complete them.

ix.   Store works reasonably: purchase functionally and purchased stuff is activated or enter inventory.

Gameplay Assets Testing:

1. Test if all art assets work functionally.

i.   Trash Cat move functionally in the Loadout UI.

ii.   Trash Cat running/jumping/sliding action is reasonable while playing.

iii. Rats run functionally on the road as obstacles.

iv. Assets for the map are loaded correctly.

v. Clicking button will give players appropriate feedback.

vi. Background is loaded correctly.

vii. All necessary assets are placed within the view of the gameplay camera.

2. **Test if all sound assets work functionally.**

i. BGM is played and looped responsibly.

ii. Button clicking sound feedback is functional.

iii. Character jumping and sliding sound effects work perfectly.

iv. Hitting obstacles sound effect is played reasonably.

v. Collecting fishbone sound effect is played correctly.

vi. Picking up powerups sound effect is played correctly.

vii. The volume can be adjusted in Setting

Compatibility Testing:

Install and uninstall the game on all supported consoles/desktops/mobiles.

Performance Testing:

1. Battery consumption and graphics performance test.
2. Processor and memory constraints test.

Soak Testing:

For example, keep pausing for 10 hours to see if there are any crashing issues (for detecting any memory leaking or rounding errors).