

Documentation for Manual Scripted Testing

Outlined below are the tests we executed via manual scripting. Included are objectives, preconditions, test steps, expected behaviour, test status and notes/defects.

TC-BAS-001 - App Launch

Objective: Verify the game launches from Gradle and renders the main window.

Preconditions: Java and Gradle wrapper available.

Steps:

1. In terminal, run: ./gradlew run
2. Wait for the JPacman window to appear.
3. Observe any UI buttons (e.g., Start/Stop/Restart) and the board.

Expected: Build succeeds; a window for JPacman opens showing a maze with pellets; UI controls visible; no errors in console.

Status: Pass

Notes/Defects: Start/stop button, no restart button

TC-BAS-002 - Start Game

Objective: Game should transition from idle to active play.

Preconditions: Game launched; not currently running.

Steps:

1. Click Start
2. Observe Pacman and ghosts (if present) begin responding.

Expected: Game state changes to running; player can accept movement input; ghosts (if present) begin moving.

Status: Pass

Notes/Defects: N/A

TC-BAS-003 - Movement and Walls

Objective: Arrow key movement works; walls block movement; open tiles permit movement.

Preconditions: Game running.

Steps:

1. Hold Right Arrow; release near a wall.
2. Try to move into a wall (e.g., press Up when a wall is directly above).
3. Move through open corridors in all four directions.

Expected: Pacman moves smoothly tile-to-tile; cannot pass through walls; input reversals at intersections feel responsive; no stutter or freeze.

Status: Pass

Notes/Defects: N/A

TC-BAS-004 - Pellet Eating and Score

Objective: Eating pellets increments score and removes pellets from the board.

Preconditions: Game running; Pacman adjacent to a pellet.

Steps:

1. Move onto a pellet tile.
2. Observe score and pellet disappearance.
3. Eat about 5 pellets in a row.

Expected: Each pellet consumed is removed and increases the score consistently. No negative score; no duplicate pellets reappearing immediately.

Status: Pass

Notes/Defects: N/A

TC-BAS-005 - Ghost Collision

Objective: Contact with a ghost should end game and reset positions appropriately.

Preconditions: At least one ghost present;

Steps:

1. Deliberately collide with a ghost.
2. Observe any popups and positions after collision.

Expected: Game is over with an option to reset to starting positions;

Status: Fail

Notes/Defects: Game ends correctly but no option to restart

TC-BAS-006 - Win Condition: All Pellets Eaten

Objective: Clearing the board triggers a win/level-complete state.

Preconditions: Game running.

Steps:

1. Eat all remaining pellets on the board
2. Observe the state change at the last pellet.

Expected: A Win or Level Complete state appears. Movement stops or transitions cleanly; no stray pellets left.

Status: Fail

Notes/Defects: Game stops, ghosts freeze, Pacman remains stationary but continues to eat pellets (move mouth). No game over banner or indication of win. No restart option or continue.

TC-BAS-007 - Stability Smoke

Objective: No crash or freeze under light play.

Preconditions: Game running.

Steps:

1. Play normally for 3 minutes.
2. Observe any lags or glitches

Expected: No crashes/exceptions; input remains responsive; no severe memory leak indications.

Status: Pass

Notes/Defects: No errors, staying alive for 3 minutes without ending the game was super hard though.