# Testing

## Testing Method

(talk about how you did the testing here)

## 1. Unit Testing

## Card, CardManager and Related Classes

|  |  |  |  |
| --- | --- | --- | --- |
| **Characteristic under test** | **Test** | **Expected result** | **Actual result** |
| Incorrectly formatted card input file | Delete flag in chance card | Error message |  |
| Player lands on community chest | Manually move a player to community chest tile | Card is picked at random, action performed |  |
| Player lands on chance | Manually move a player to chance tile | Card is picked at random, action performed |  |
| Player receives money from card | Manually assign “Won a crossword competition” action. | Player gets £100 |  |
| Player loses money from card | Manually assign “Drunk in charge” card | Player loses £20 |  |
| Player goes to jail | Manually assign “Go to jail” card | Player goes to jail |  |
| Player gets moved to a certain position | Manually assign “Advance to go” card | Player goes to “go” square |  |
| Test every card | Manually do every card's action on player | No bugs or errors |  |

## Player and PlayerManager Class

|  |  |  |  |
| --- | --- | --- | --- |
| **Characteristic under test** | **Test** | **Expected result** | **Actual result** |
| Player lands on 'go to jail' tile | Manually move player to “go to jail” tile | Player goes to jail |  |
| Player buys a house | Give player all brown properties, land on Old Kent Road, select option to buy house | Player gets house on Old Kent Road, pays £60 |  |
| Player pays rent | Give Pall Mall to other player, send this player to Pall Mall | Player loses £10, other player gets £10 |  |
| Player receives rent | Give Pall Mall to player, move another player to Pall Mall | Player gets £10, other player loses £10 |  |
| Player rolls a double | Keep rolling until a double happens | Player gets another go |  |
| Test player landing on every tile | Manually move player to every tile | No bugs or errors |  |

## Property and Related Classes

|  |  |  |  |
| --- | --- | --- | --- |
| **Characteristic under test** | **Test** | **Expected result** | **Actual result** |
| Mortgage property | Give player Pall Mall, player selects 'mortgage' option | Pall Mall is set to “mortgaged” |  |
| Pay rent on a station | Sell station to another player, manually send player to that station | Player pays £25 rent |  |
| Pay rent on a utility | Sell utility to another player, manually send player to that utility | Player pays four times second dice roll |  |
| Pay rent on 1 house | Give another player a house on Old Kent Road, send this player to Old Kent Road | Player pays £10 to other player |  |
| Pay rent on 2 houses | Give another player two houses on Old Kent Road, send this player to Old Kent Road | Player pays £30 to other player |  |
| Pay rent on 3 houses | Give another player three houses on Old Kent Road, send this player to Old Kent Road | Player pays £90 to other player |  |
| Pay rent on 4 houses | Give another player four houses on Old Kent Road, send this player to Old Kent Road | Player pays £160 to other player |  |
| Pay rent on a hotel | Give another player a hotel on Old Kent Road, send this player to Old Kent Road | Player pays £250 to other player |  |

## 2. Integration Testing

## Game and Board Classes

|  |  |  |  |
| --- | --- | --- | --- |
| **Characteristic under test** | **Test** | **Expected result** | **Actual result** |
| Incorrectly formatted board input file | Remove colour field from Pall Mall | Error message |  |
| Insufficent tiles in board input file | Remove Pall Mall | Error message |  |

## 3. System Testing

## Functional Testing

|  |  |  |  |
| --- | --- | --- | --- |
| **Characteristic under test** | **Test** | **Expected result** | **Actual result** |
| Finish game with 2 players | Keep playing the game until it finishes | Game finishes without errors or bugs |  |
| Finish game with 3 players | Keep playing the game until it finishes | Game finishes without errors or bugs |  |
| Finish game with 4 players | Keep playing the game until it finishes | Game finishes without errors or bugs |  |
| Finish game with 5 players | Keep playing the game until it finishes | Game finishes without errors or bugs |  |
| Finish game with 6 players | Keep playing the game until it finishes | Game finishes without errors or bugs |  |