# **System: Java Monopoly Game**

#### Instructions:

1. Install JAVA; the latest JRE and JDK.

### Testcase 1001

System: Java Monopoly Game

Test: Game Startup (getting into initial game UI)

#### Instructions:

1. Open Monopoly binary or run from source in Eclipse

# Expected result:

1. The user should see a welcome window pop up that indicates "Monopoly" and gives the choice between two, three and four players through buttons. There will also be a "Start Game!" button.

# Cleanup:

Stop the game by closing the window.

#### Testcase 1002

System: Java Monopoly Game

Starting A Game (any number of players - duplicate token)

### Instructions:

- 1. (Test Case 1001, instruction 1)
- 2. Select any option.
- 3. Click "Start Game!" button.

# Expected result:

1. An error message should pop-up indicating that all players must choose a unique token.

### Cleanup:

- 1. Click the "OK" button on the error message dialogue window.
- 2. Stop the game by closing the window.

### Testcase 1003

System: Java Monopoly Game

Starting A Game (any number of players)

#### Instructions:

- 1. (Test Case 1002, instructions 1-2)
- 2. Choose unique tokens for all players.
- 3. Click "Start Game!" button.

# Expected result:

1. Monopoly board should appear with appropriate tokens on board, player names and balances, die values and a "Roll" button.

## Cleanup:

1. Stop the game by closing the window.

#### Testcase 1004

System: Java Monopoly Game

Player Roll (landing on unowned property)

#### Instructions:

- 1. (Test Case 1003, instructions 1-3)
- 2. Click "Roll" button.

# Expected result:

1. A window will appear prompting the user if they would like to buy the property.

### Cleanup:

1. Stop the game by closing all the windows.

### Testcase 1005

System: Java Monopoly Game

Player Roll (landing on owned property)

- 1. (Test Case 1003, instructions 1-3)
- 2. Click "Roll" button.

## Expected result:

1. A window will pop up indicating that the player will pay the amount of rent indicated. After clicking "OK", the rest of the turn will commence.

# Cleanup:

1. Stop the game by closing all the windows.

### Testcase 1006

System: Java Monopoly Game

Player Roll (landing on the "Community Chest" or "Chance" square)

#### Instructions:

- 1. (Test Case 1003, instructions 1-3)
- 2. Click "Roll" button.

### Expected result:

1. The player will resume their turn as normal starting with the house-buying option window. ("Community Chest" and "Chance" squares are not implemented at this point)

# Cleanup:

1. Stop the game by closing all the windows.

### **Testcase 1007**

System: Java Monopoly Game

Player Roll (landing on an "Income Tax" or "Luxury Tax" square)

#### Instructions:

- 1. (Test Case 1003, instructions 1-3)
- 2. Click "Roll" button.

### Expected result:

- 1. A window will appear indicating the kind of tax and the amount that the player will pay to the bank (If the square landed on is Income Tax, the lowest amount between \$200 and %10 of the player's total worth is automatically taken).
- 2. After clicking "OK", the player will resume their turn as normal, starting with the house-buying option window.

### Cleanup:

1. Stop the game by closing all the windows.

#### Testcase 1008

System: Java Monopoly Game

Player Roll (landing on "Just Visiting" square)

### Instructions:

- 1. (Test Case 1003, instructions 1-3)
- 2. Click "Roll" button.

# Expected result:

1. The player will resume their turn as normal, starting with the house-buying option window.

# Cleanup:

1. Stop the game by closing all the windows.

### Testcase 1009

System: Java Monopoly Game

Player Roll (landing on "Go to Jail" square)

#### Instructions:

- 1. (Test Case 1003, instructions 1-3)
- 2. Click "Roll" button.

# Expected result:

- 1. A window appears alerting the player to the fact that they landed on the "Go to Jail" square. This does not count as passing the "Go" square and the player's balance will not increase by \$200.
- 2. After clicking "OK", the player's token is moved to the Jail square and their turn immediately ends.

### Cleanup:

1. Stop the game by closing all the windows.

#### Testcase 1010

System: Java Monopoly Game Player Roll (rolling doubles)

#### Instructions:

- 1. (Test Case 1003, instructions 1-3)
- 2. Click "Roll" button.

# Expected result:

1. A player's turn executes as normal for the square they landed on, but they will get to roll again as long as they are not sent to Jail.

## Cleanup:

1. Stop the game by closing all the windows.

### **Testcase 1011**

System: Java Monopoly Game

Player Roll (rolling doubles three consecutive times)

### Instructions:

- 1. (Test Case 1003, instructions 1-3)
- 2. Click "Roll" button.

#### Expected result:

- 1. A window appears alerting the player to the fact that they have rolled doubles three consecutive times and are now in Jail.
- 2. After clicking "OK", the player's token is moved to the "In Jail" square and their turn immediately ends.

### Testcase 1012

System: Java Monopoly Game Player Roll (landing on "Go" square)

#### Instructions:

- 1. (Test Case 1003, instructions 1-3)
- 2. Click "Roll" button.

# Expected result:

1. Player's balance is increased by \$200 and their turn resumes as normal, starting with the house-buying option window.

#### Testcase 1013

System: Java Monopoly Game Player Roll (passing "Go" square)

#### Instructions:

- 1. (Test Case 1003, instructions 1-3)
- 2. Click "Roll" button.

## Expected result:

1. Player's balance is increased by \$200 and their turn resumes as normal as per the kind of square they have landed on.

### Testcase 1014

System: Java Monopoly Game

Player Turn (buying unowned property successfully)

#### Instructions:

- 1. (Test Case 1004, instructions 1-2)
- 2. Player clicks on "Yes" when asked to buy property.

#### Expected result:

1. Player's balance is decreased by the cost of the property and their turn resumes as normal, starting with the house-buying option window.

### **Testcase 1015**

System: Java Monopoly Game

Player Turn (buying unowned property unsuccessfully - insufficient funds)

#### Instructions:

- 1. (Test Case 1004, instructions 1-2)
- 2. Player clicks on "Yes" when asked to buy property.

### Expected result:

1. A window appears informing the player that they have insufficient funds to buy the property. Their turn resumes as normal, starting with the house-buying option window.

#### Testcase 1016

System: Java Monopoly Game Player Roll (house-buying menu)

#### Instructions:

- 1. (Test Case 1004, instructions 1-2)
- 2. Player proceeds through turn until they get to the window prompt for buying houses.
- 3. Player clicks "Yes" when asked to buy houses.

# Expected result:

1. A window appears with a drop-down menu to select a property that the player owns.

### Testcase 1017

System: Java Monopoly Game

Player Roll (buying houses successfully)

### Instructions:

- 1. (Test Case 1016, instructions 1-3)
- 2. Player selects an owned property.
- 3. Player clicks "OK".

## Expected result:

1. The property square indicates that a house is bought for that property. The player's balance is decreased by the house cost. Their turn resumes as normal, starting with the house-selling option window.

#### Testcase 1018

System: Java Monopoly Game

Player Roll (buying houses unsuccessfully - insufficient funds)

### Instructions:

1. (Test Case 1017, instructions 1-3)

### Expected result:

1. A window appears informing the player that they have insufficient funds to buy a house. Their turn resumes as normal, starting with the house-selling option window.

### Testcase 1019

System: Java Monopoly Game

Player Roll (buying houses unsuccessfully - max houses for property)

#### Instructions:

1. (Test Case 1017, instructions 1-3)

## Expected result:

- 1. A window appears informing the player that they have the maximum number of houses for the property.
- 2. After clicking "OK", the player is returned to the house-buying menu and the turn resumes as normal.

### Testcase 1020

System: Java Monopoly Game

Player Roll (buying houses unsuccessfully - no monopoly)

#### Instructions:

1. (Test Case 1017, instructions 1-3)

### Expected result:

- 1. A window appears informing the player that they do not have a monopoly for the color-group.
- 2. After clicking "OK", the player is returned to the house-buying menu and the turn resumes as normal.

# Testcase 1021

System: Java Monopoly Game

Player Roll (buying houses unsuccessfully - not buying evenly)

### Instructions:

1. (Test Case 1017, instructions 1-3)

# Expected result:

1. A window appears informing the player that they need to buy houses evenly for any color-group.

2. After clicking "OK", the player is returned to the house-buying menu and the turn resumes as normal.

#### Testcase 1022

System: Java Monopoly Game

Player Roll (selling houses unsuccessfully - no more houses)

#### Instructions:

1. (Test Case 1017, instructions 1-3)

### Expected result:

- 1. A window appears informing the player that there are no more houses left to buy in the game and they must wait until a house is returned or sold.
- 2. After clicking "OK", the player is returned to the house-buying menu and the turn resumes as normal.

## Testcase 1023

System: Java Monopoly Game Player Roll (house-selling menu)

### Instructions:

- 1. (Test Case 1004, instructions 1-2)
- 2. Player proceeds through turn until they get to the window prompt for selling houses.
- 3. Player clicks "Yes" when asked to sell houses.

# Expected result:

1. A window appears with a drop-down menu to select a property that the player owns.

#### Testcase 1024

System: Java Monopoly Game

Player Roll (selling a house successfully)

- 1. (Test Case 1023, instructions 1-3)
- 2. Player selects an owned property.

3. Player clicks "OK".

## Expected result:

1. The property square indicates that a house has been sold for that property. The player's balance is increased by half of the house cost. Their turn resumes as normal, starting with the property-mortgaging option window.

#### Testcase 1025

System: Java Monopoly Game

Player Roll (selling a house unsuccessfully - no house on property)

#### Instructions:

1. (Test Case 1024, instructions 1-3)

# Expected result:

1. A window appears informing the player that they do not have a house for that property. The player is returned to the house-selling option window.

### Testcase 1026

System: Java Monopoly Game

Player Roll (property-mortgaging menu)

### Instructions:

- 1. (Test Case 1004, instructions 1-2)
- 2. Player proceeds through turn until they get to the window prompt for mortgaging property.
- 3. Player clicks "Yes"

### Expected result:

1. A window appears with a drop-down menu to select a property that the player owns.

#### Testcase 1027

System: Java Monopoly Game

Player Roll (mortgaging a property successfully)

#### Instructions:

1. (Test Case 1026, instructions 1-3)

- 2. Player selects an owned property.
- 3. Player clicks "OK".

## Expected result:

1. The property square indicates that a the property is mortgaged. The player's balance is increased by the the mortgage amount. Their turn resumes as normal, starting with the mortgaging option window.

#### Testcase 1028

System: Java Monopoly Game

Player Roll (mortgaging a property unsuccessfully - houses are on color-group)

### Instructions:

1. (Test Case 1027, instructions 1-3)

### Expected result:

1. A window appears informing the player that they can not mortgage the property because there exists one or more houses on properties in the color-group. Their turn resumes as normal, starting with the mortgaging option window.

#### Testcase 1029

System: Java Monopoly Game

Player Roll (mortgaging a property unsuccessfully - property already mortgaged)

#### Instructions:

1. (Test Case 1027, instructions 1-3)

### Expected result:

1. A window appears informing the player that the property is already mortgaged. Their turn resumes as normal, starting with the mortgaging option window.

#### Testcase 1030

System: Java Monopoly Game

Player Roll (property-unmortgaging menu)

- 1. (Test Case 1004, instructions 1-2)
- 2. Player proceeds through turn until they get to the window prompt for unmortgaging property.

3. Player clicks "Yes"

## Expected result:

1. A window appears with a drop-down menu to select a property that the player owns.

### Testcase 1031

System: Java Monopoly Game

Player Roll (unmortgaging a property successfully)

#### Instructions:

- 1. (Test Case 1030, instructions 1-3)
- 2. Player selects an owned property.
- 3. Player clicks "OK".

# Expected result:

1. The property square indicates that a the property is no longer mortgaged. The player's balance is decreased by the the mortgage amount and 10% interest. Their turn resumes as normal, starting with the mortgaging option window.

### Testcase 1032

System: Java Monopoly Game

Player Roll (unmortgaging a property unsuccessfully - insufficient funds)

#### Instructions:

1. (Test Case 1031, instructions 1-3)

# Expected result:

1. A window appears informing the player that they are not able to unmortgage the property because they have insufficient funds. The player is returned to the unmortgaging-property option window and their turn resumes as normal.

### Testcase 1033

System: Java Monopoly Game

Player Roll (unmortgaging a property unsuccessfully - property is not mortgaged)

#### Instructions:

1. (Test Case 1031, instructions 1-3)

## Expected result:

1. A window appears informing the player that the property is not mortgaged and therefore the player is unable to unmortgage the property. The player is returned to the unmortgaging-property option window and their turn resumes as normal.

#### Testcase 1034

System: Java Monopoly Game

Player Roll (unmortgaging a property unsuccessfully - property is not mortgaged)

#### Instructions:

1. (Test Case 1031, instructions 1-3)

## Expected result:

1. A window appears informing the player that the property is not mortgaged and therefore the player is unable to unmortgage the property. The player is returned to the unmortgaging-property option window and their turn resumes as normal.

#### Testcase 1035

System: Java Monopoly Game Player Roll (property-selling menu)

### Instructions:

- 1. (Test Case 1004, instructions 1-2)
- 2. Player proceeds through turn until they get to the window prompt for selling property.
- 3. Player clicks "Yes"

# Expected result:

1. A window appears with a drop-down menu to select a property that the player owns.

#### Testcase 1036

System: Java Monopoly Game

Player Roll (selling a property - start auction)

- 1. (Test Case 1035, instructions 1-3)
- 2. Player selects an owned property.

3. Player clicks "OK".

## Expected result:

1. A window appears and informing that the property will be auctioned off to the highest bidder and ask for a starting bid.

### Testcase 1037

System: Java Monopoly Game

Player Roll (selling a property - owner enters a starting bid)

#### Instructions:

- 1. (Test Case 1036, instructions 1-3)
- 2. Player enters starting bid amount.
- 3. Player clicks "OK".

# Expected result:

1. A window appears asking the next player if they want to bid on the property.

#### Testcase 1038

System: Java Monopoly Game

Player Roll (selling a property - player makes a bid)

#### Instructions:

- 1. (Test Case 1037, instructions 1-3)
- 2. Player enters a bidding amount that is equal to or higher than the current highest bid.
- 3. Player clicks "OK".

### Expected result:

1. A window appears asking the next player if they want to bid on the property.

### Testcase 1039

System: Java Monopoly Game

Player Roll (selling a property - player declines to bid and bid has been raised since next player's last turn)

### Instructions:

- 1. (Test Case 1037, instructions 1-3)
- 2. Player clicks "No".

# Expected result:

1. A window appears asking the next player if they want to bid on the property.

#### Testcase 1040

System: Java Monopoly Game

Player Roll (selling a property - player declines to bid and bid has not been raised since next player's last turn)

#### Instructions:

- 1. (Test Case 1037, instructions 1-3)
- 2. Player clicks "No".

## Expected result:

1. A window appears informing the property owner that their property has been sold to the highest bidding player. Previous owner's balance increases by that amount while new owner's balance decreases by that amount.

# Testcase 1041

System: Java Monopoly Game

Player Roll (selling a property - all players have declined to bid)

#### Instructions:

- 1. (Test Case 1037, instructions 1-3)
- 2. Player clicks "No".

## Expected result:

1. A window appears informing the property owner that their property was unable to be sold. Owner is returned to the property-selling option page and their turn resumes.

# Testcase 1042

System: Java Monopoly Game

Player Roll (selling a property - player agrees to bid)

### Instructions:

- 1. (Test Case 1037, instructions 1-3)
- 2. Player clicks "Yes".

# Expected result:

1. A window appears with a space to enter the amount that the player wishes to bid.

### Testcase 1043

System: Java Monopoly Game

Player Roll (selling a property - player agrees to bid - bids successfully)

### Instructions:

- 1. (Test Case 1042, instructions 1-3)
- 2. Player enters bid amount.
- 3. Player clicks "Bid".

### Expected result:

1. A window appears asking the next player if they would like to bid on the property.

## Testcase 1044

System: Java Monopoly Game

Player Roll (selling a property - player agrees to bid - fails due to insufficient funds)

#### Instructions:

1. (Test Case 1043, instructions 1-3)

### Expected result:

1. A window appears informing the player that they do not have the sufficient funds for that bid. Player is returned to bid-entry screen.

### Testcase 1045

System: Java Monopoly Game

Player Roll (selling a property - player agrees to bid - fails due being less than current highest bid)

1. (Test Case 1043, instructions 1-3)

# Expected result:

1. A window appears informing the player that their bid does not go through since the bidding amount is less than the current highest bid. Player is returned to bid-entry screen.

### Testcase 1046

System: Java Monopoly Game

Player Roll (selling a property - player agrees to bid - player cancels bid entry)

#### Instructions:

- 1. (Test Case 1042, instructions 1-3)
- 2. Player clicks "Cancel".

### Expected result:

1. A window appears asking the next player if they would like to bid on the property.

## Testcase 1046

System: Java Monopoly Game

Player Roll (selling a property - player agrees to bid - player cancels bid entry)

### Instructions:

- 1. (Test Case 1042, instructions 1-3)
- 2. Player clicks "Cancel".

#### Expected result:

1. A window appears asking the next player if they would like to bid on the property.

### Testcase 1047

System: Java Monopoly Game

Player Turn (landing on unowned property - player declines to buy property)

### Instructions:

- 1. (Test Case 1004, instructions 1-2)
- 2. Player clicks on "No" when asked to buy property.

# Expected result:

1. Bidding system is started with the same logic as bidding for a property being sold by a player. A window appears asking the next player if they would like to bid on the property. This process continues just as it does when a player is selling a property, except if no one bids, the property remains unsold.

### Testcase 1048

System: Java Monopoly Game

Player Turn (bankruptcy - owe bank)

#### Instructions:

1. If at any point in the game a player owes more than they can pay to the bank, the player is bankrupt.

### Expected result:

- 1. Player loses all cash, houses and property.
- 2. Player is removed from game.
- 3. Property that was owned by player is auctioned off, one-by-one using normal auction rules, but without a starting bid.

#### Testcase 1049

System: Java Monopoly Game

Player Turn (bankruptcy - owe another player - mortgaged-property-sale menu)

#### Instructions:

1. If at any point in the game a player owes more than they can pay to another player, the player is bankrupt.

# Expected result:

- 1. Player gives all cash and unmortgaged property to the player that they owe.
- 2. Player sells all houses at half price to the Bank and gives this to the player that they owe.
- 3. Player is removed from the game.
- 4. A window opens asking the owed player if they would like to buy mortgaged property.

#### Testcase 1050

System: Java Monopoly Game

Player Turn (bankruptcy - owe another player - mortgaged-property-sale menu)

#### Instructions:

- 1. (Testcase 1049, instruction 1)
- 2. Player clicks "Yes".

# Expected result:

1. A window with dropdown menu with the mortgaged properties and a checkmark for paying interest appears.

#### Testcase 1051

System: Java Monopoly Game

Player Turn (bankruptcy - owe another player - mortgaged-property-sale menu - player successfully buys mortgaged property with principal)

#### Instructions:

- 1. (Testcase 1050, instructions 1-2)
- 2. Player selects mortgaged property they want and checks the "pay principal" option.
- 3. Player clicks "OK".

#### Expected result:

- 1. Player's balance is decremented by principal mortgage amount and interest.
- 2. Player recieves property unmortgaged.
- 3. Player is returned to the mortgaged-property-sale menu.

# Testcase 1052

System: Java Monopoly Game

Player Turn (bankruptcy - owe another player - mortgaged-property-sale menu - player successfully buys mortgaged property without principal)

- 1. (Testcase 1050, instructions 1-2)
- 2. Player selects mortgaged property they want and leaves "pay principal" unchecked.

3. Player clicks "OK".

# Expected result:

- 1. Player's balance is decremented by the 10% interest on the mortgage.
- 2. Player recieves mortgaged property.
- 3. Player is returned to the mortgaged-property-sale menu.

### Testcase 1053

System: Java Monopoly Game

Player Roll (selling a mortgaged property - start auction)

### Instructions:

- 1. (Test Case 1035, instructions 1-3)
- 2. Player selects an owned property.
- 3. Player clicks "OK".

### Expected result:

1. A window appears and informing that the the property will be auctioned off to the highest bidder and ask for a starting bid. This process is the same as the selling of an unmortgaged property, but the starting bid includes 10% interest on the mortgage.

# Testcase 1054

System: Java Monopoly Game

Player Roll (selling a mortgaged property - auction finished - new owner decides how to pay)

### Instructions:

1. (Test Case 1053, instructions 1-3)

### Expected result:

1. A window appears asking the new owner if they would like to pay the principal amount to unmortgage the property.

### Testcase 1055

System: Java Monopoly Game

Player Roll (selling a mortgaged property - auction finished - new owner decides how to pay - pays principal)

# Instructions:

- 1. (Test Case 1054, instruction 1)
- 2. Player clicks "Yes".

# Expected result:

- 1. Player's balance is decremented by principal amount of mortgage.
- 2. Player recieves unmortgaged property.

### Testcase 1056

System: Java Monopoly Game

Player Roll (selling a mortgaged property - auction finished - new owner decides how to pay - pays principal)

#### Instructions:

- 1. (Test Case 1054, instruction 1)
- 2. Player clicks "No".

### Expected result:

1. Player's recieves mortgaged property

### Testcase 1057

System: Java Monopoly Game

Player Roll (Player is in Jail - player rolls for doubles - success)

#### Instructions:

1. Player rolls for doubles

# Expected result:

- 1. Player rolled doubles and is now out of jail.
- 2. Player moves the number of spaces indicated on the dice.
- 3. Player's turn immediately ends.

### Testcase 1057

System: Java Monopoly Game

Player Roll (Player is in Jail - player rolls for doubles - success)

#### Instructions:

1. Player rolls for doubles

# Expected result:

- 1. Player rolled doubles and is now out of jail.
- 2. Player moves the number of spaces indicated on the dice.
- 3. Player's turn resumes as normal without being able to move again due to throwing doubles.

#### Testcase 1058

System: Java Monopoly Game

Player Roll (Player is in Jail - player rolls for doubles - unsuccessful - it has been three turns)

#### Instructions:

1. Player rolls for doubles

# Expected result:

- 1. Player failed to roll doubles.
- 2. Player pays \$50 to the bank.
- 3. Player moves the number of spaces indicated on the dice.
- 3. Player's turn resumes as normal.

### Testcase 1059

System: Java Monopoly Game

Player Roll (Player is in Jail - player rolls for doubles - unsuccessful - it hasn't been three turns)

#### Instructions:

1. Player rolls for doubles

### Expected result:

- 1. Player failed to roll doubles.
- 2. Player remains in Jail, but turn resumes as normal.

### Testcase 1060

System: Java Monopoly Game

Player wins

### Instructions:

1. If at any time in the game, there is only one player remaining, that player wins the game

# Expected result:

1. A window appears showing which player won and their total net worth.

# Testcase 1061

System: Java Monopoly Game

Player Roll (landing on the "Free Parking" square)

### Instructions:

- 1. (Test Case 1003, instructions 1-3)
- 2. Click "Roll" button.

# Expected result:

1. The player will resume their turn as normal starting with the house-buying option window.

# Cleanup:

1. Stop the game by closing all the windows.