

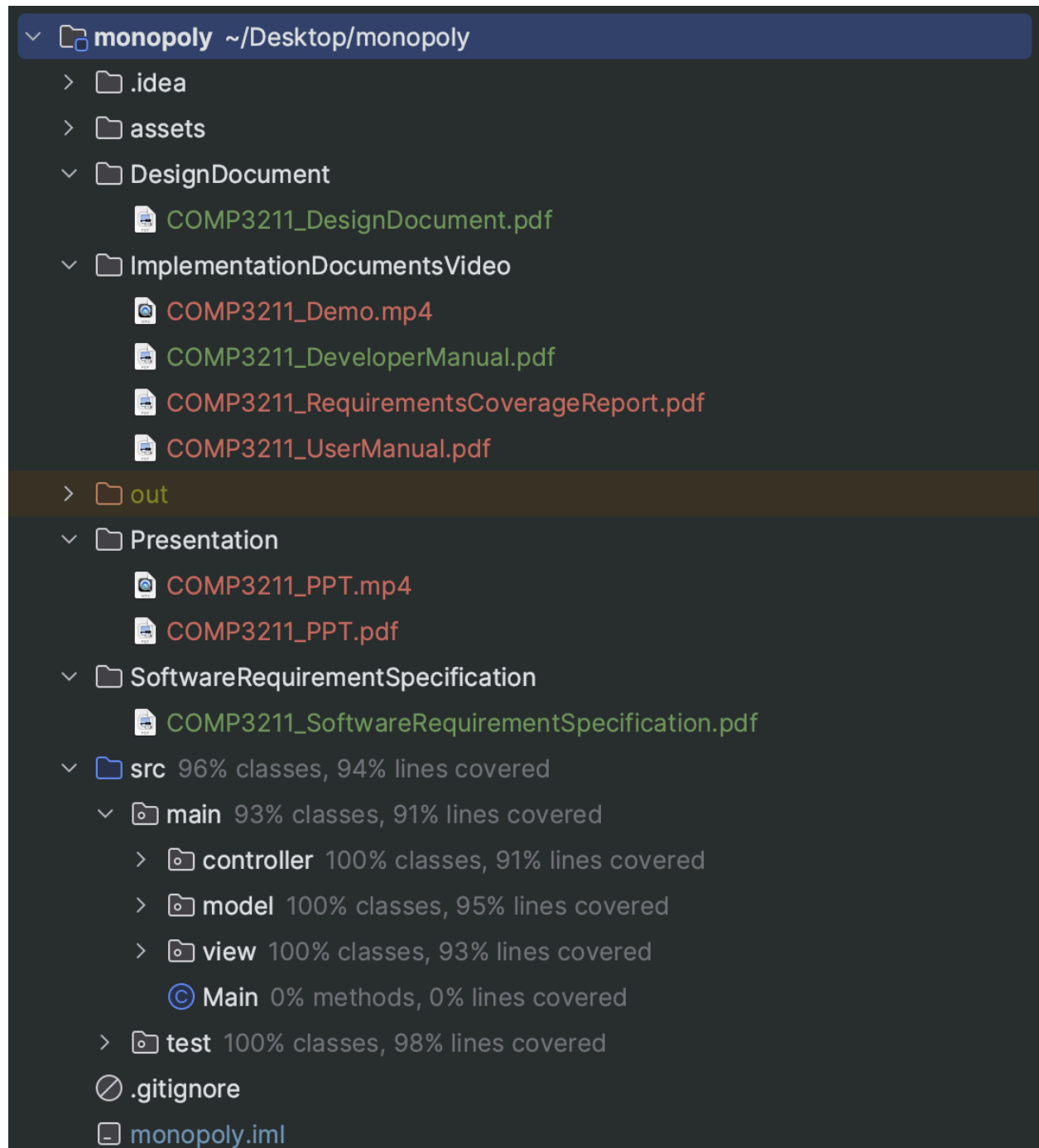
MonoPolyU

# User Manual **The Monopoly Game**

Authored by:

- Dominicus Dylan HARYOTO
- Haoran BAI
- Tao FU
- Weichen NING

## Directory Structure (all deliverables included)



## Prerequisite

1. JDK Version: 17 and above
2. Running Test: JUnit4
3. Build Tool: IntelliJ IDEA (**recommended**) or Command-Line

## Launch Game

### 1. CMD Version

- a. Open the CMD from the project directory

```
D:\The-Monopoly-Game-master>|
```

- b. Run the compilation command "javac -d out src/\*.java"

```
D:\The-Monopoly-Game-master>javac -d out src/*.java
```

- c. Run the launch command "javac -d out src/\*.class"

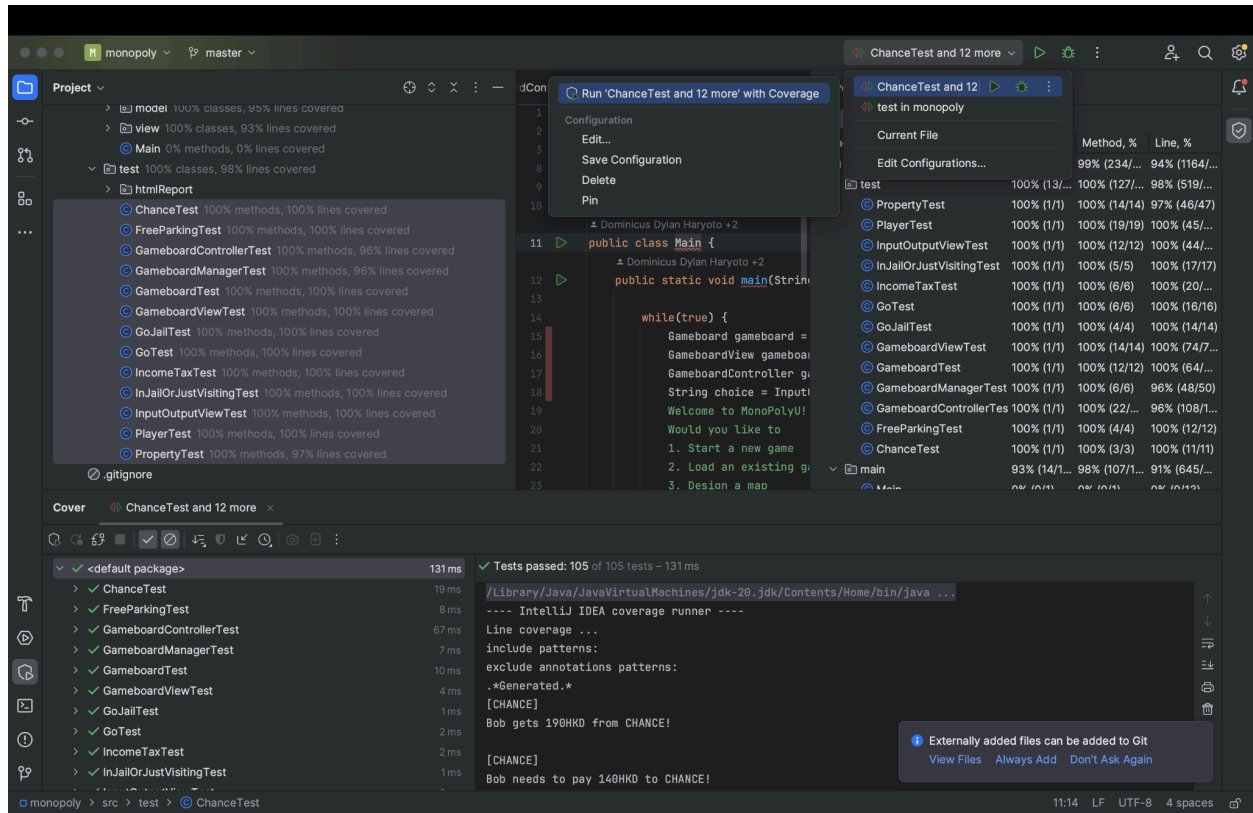
```
D:\The-Monopoly-Game-master>java src/*.class
```

### 2. IntelliJ IDEA (recommended)

- a. Navigate to **monopoly/src/main/Main.java**, Click the Run Button to run the game
- b. The terminal in IntelliJ IDEA can also be used the same as CMD.

# Launch Tests

Navigate to `monopoly/src/test/`, select all tests (13 files), and select Run with Coverage.



## How To Play

Be aware that all the spaces and line breaks are unavailable for input. The system will ignore the information after the spaces and line breaks. You may want to use underscore or other symbols as replacements.

### 1. Start a new game

After entering the game, the game will present a welcome message while showing a choice.

```
Welcome to MonoPolyU!  
Would you like to  
1. Start a new game  
2. Load an existing game  
3. Design a map  
4. Log Out
```

Type 1 for starting a new game, 2 for loading a game that has been recorded, 3 for entering gameboard designer mode, and 4 for quitting.

## 2. Game Initialization

For initializing the game, you have to choose the number of the players, the name of the players, and the map wanted to choose.

Enter player number

```
Please enter the number of players (minimum 2, maximum 6)
```

Enter player names

```
Please decide your naming option for players:  
1. Input to name each player  
2. Randomly generate name for each player
```

Select game map

```
Would you like to  
1. Start with default map\  
2. Start by loading a map  
3. Restart
```

## 3. Game Beginning

You will receive a welcome message when loading the game

```
Welcome to MonoPolyU, the game is starting...
```

Following with the player option (Player Name will be replaced by true player names entered previously)

```
[Player Name]'s turn. Would you like to:  
1. Roll the dice (required to proceed)  
2. Check player(s) status  
3. Print the current gameboard status  
4. Check the next player  
5. Save the current game  
6. Close the current game
```

Option 1: Type 1 and the game will roll the dice for the player and move the player's position relatively

Option 2: The check player will lead you to the further choices for selection

```
Would you like to:  
1. Go back to previous options  
2. Check all players  
3. Check a single player
```

Option 3: Printing out everything about the current gameboard

Option 4: This option will display all the information of the next player

Option 5: This option will save the current game status into a file

Option 6: This option will break the game and quit the player from the game

#### 4. Gameboard Designer

The gameboard designer will be able to choose from the following options

```
Would you like to
1. Design from the default map
2. Design from other map
```

After choosing a specific map, the designers can see the presented map and select the following options for making changes

```
Would you like to?
1. Change the name/price/rent of current properties
2. Print out the properties
3. Finish changing
```

For changing the map, the designer will be asked which property to choose, and which property features to change. Then adopt the change.

Select Property

```
Please type the index of the property which you want to change (from 0 to 11, both inclusive)
```

Select Property Features (Attributes)

```
Which attribute would you like to change for this property?
1. Name
2. Price
3. Rent
```

At the end of map designing, the gameboard designer can choose whether to keep the changes on the current map or to save as another map:

```
Would you like to
1. Overwrite the current map
2. Create a new map
```

## 5. Property Square Interactions

When stepped on the property square, if the square isn't owned, the players will automatically be given the following options

```
Would you like to:  
1. Buy [Property Name]  
2. Pass [Property Name]
```

Option 1: The property will be assigned to the player and the money will be taken from the user. The player will be returned a thanks for buying message

Option 2: The player will not process on the property and the player will be returned a thanks for visiting message

If the property is owned, the player will be informed how much money has been taken away

```
[Player Name] paid [Rent] of [Property Name] to [Owner Name]!
```

## 6. In Jail Status

If the player is in the status of In Jail, the player will be given the following options

```
You are currently in jail. Would you like to:  
1. Pay HKD$150 to get out  
2. Stay in jail
```

Option 1: the player will be fined for 150 from their money and leave the in-jail status

Option 2: the player will still stay in jail



## 7. Game End

Those who are retired from the game will be announced during the game

```
[UPDATE] [Player Name] is out of the game!
```

The game will end either when there's only one player left or at the end of the 100th round. The winners are decided by the only one left or the player(s) with the highest money. Multiple winners are allowed.

The game will announce the winner and end the game.

Single winner

```
[UPDATE] Game has ended! The winner is [Player Name]
```

Multiple winners

```
[UPDATE] Game has ended! The winners are [Player Name]
```

At quitting you will receive a thankyou message

```
Thanks for coming to MonoPolyU!
```

## Error Message Explanation

### 1. Player not found.

Entered a wrong player name when deleting players

### 2. The name must have a minimum of 1 character and a maximum of 9 characters!

The player's name length is 0 or over 10

**3. Default map does not exist!**

Default map cannot be found under current directory

**4. File does not exist!**

The expected map is not in the position

**5. You must roll the dice (type "1") before proceeding!**

Further movements must be made after roll dice has taken place.

You cannot choose any other options other than those given

**6. [FAILURE] The map failed to load from**

The map cannot be loaded for the gameboard designer

**7. [FAILURE] The properties failed to be interpreted from**

The gameboard designer are not able to view the properties, the map is either missing or collapsed

**8. You did not make any change to the default map!**

The gameboard designer didn't design any board before saving

**9. [Player Name] does not have enough money to buy [Property Name]**

The player cannot afford the property

**10. [Player Name] does not have enough money to pay the rent for [Property Name]**

The player cannot afford to pay the rent