COMP3211
Software Engineering

Group 1 – User Manual

Monopoly
Hong Kong Special Edition

Group 1	
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I. Introduction

Purpose of The User Manual

The purpose of this user manual is to provide a comprehensive guide for navigating and utilizing the features of the Monopoly (Hong Kong Special Edition) game application. Designed with a user-friendly graphical interface, this manual eliminates the need for technical interaction, ensuring accessibility for all players. It serves as a detailed reference for understanding the structure and functionality of the game, which consists of 9 distinct frames, each offering specific controls and features.

Whether you are starting a new game, loading a saved game, or customizing the board, this manual outlines the steps clearly and concisely. It also highlights essential gameplay elements, such as managing players, modifying properties, saving progress, and loading data. Furthermore, additional in-game guidance ensures an intuitive experience, helping players familiarize themselves with this unique variation of Monopoly while retaining its core logic.

By following this manual, players can maximize their enjoyment of the game, efficiently manage their progress, and fully utilize the customization options available.

II. Navigation

Back Button

The **<Back Button>** is present in almost every frame and allows users to <u>navigate back to the previous frame they accessed</u>.

Home Button

The **<Home Button>** is displayed <u>both on Save Board Profile Frame (Section X) and Save Game Frame</u> (Section VI).

In <u>Save Board Profile Frame</u>, the **<Home Button>** will navigate the user back to <u>New Game Frame</u> (Section III) where the user insert player names.

In <u>Save Game Frame</u>, where is after user clicking **<Save and Quit Button>** in <u>Gameplay Frame</u> (Section XI), click this button means *no save is proceed*, and *back to Main Menu*.

III. Main Menu Frame

New Game Button

Click this button to start a new game. It will navigate you to the New Game Frame (Section VII).

Load Game Button

Use this button to load a previously saved game. It will take you to the Load Game Frame (Section V).

Exit Button

Click this button to close and exit the game.
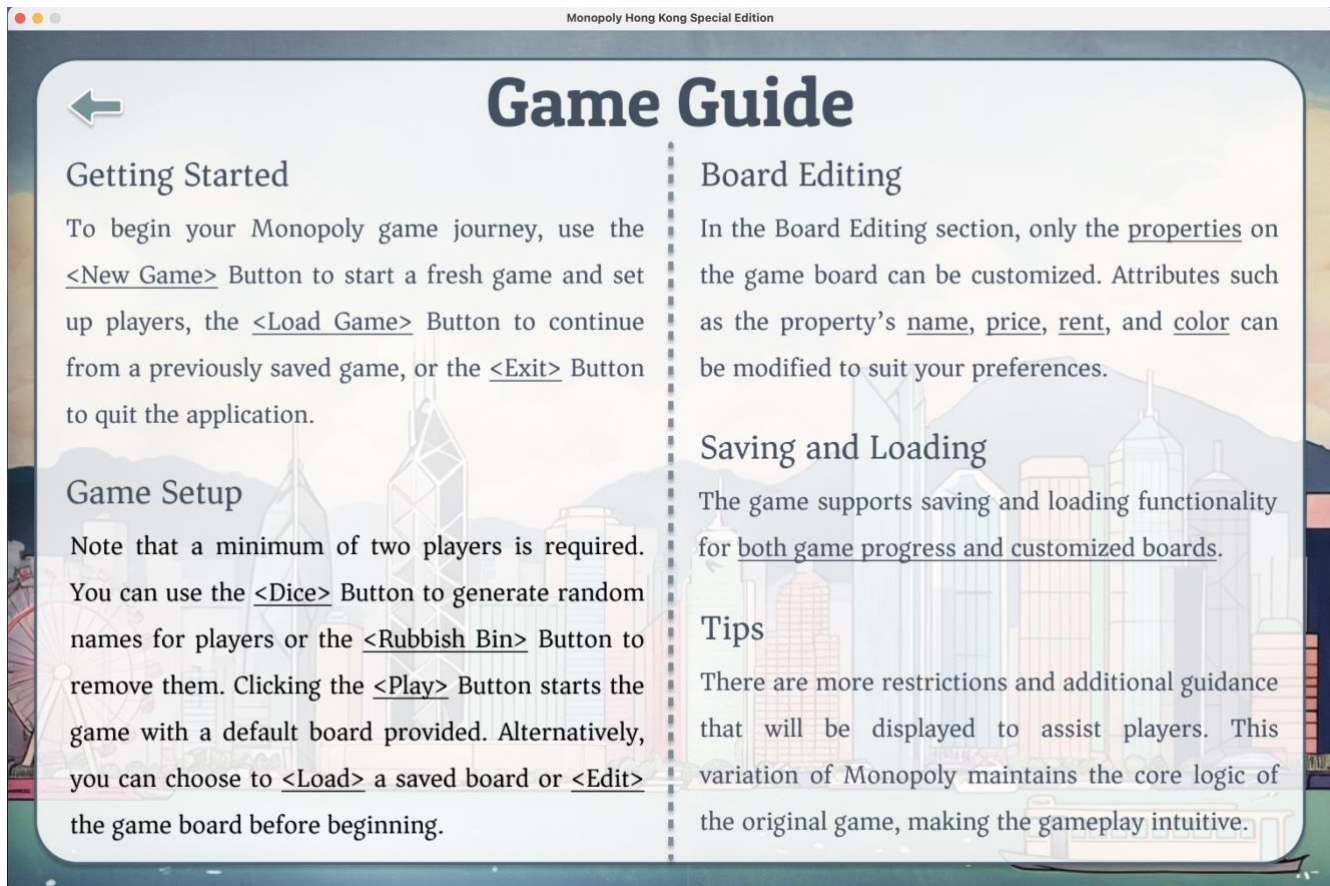
Info Button

Press this button to access the game guide, which will take you to the Info Page Frame (Section IV).

IV. Info Page Frame

Game Guidance

We offer clear and <u>concise guidance</u>, summarized in just one page.

Game Guide

Getting Started

To begin your Monopoly game journey, use the <u><New Game></u> Button to start a fresh game and set up players, the <u><Load Game></u> Button to continue from a previously saved game, or the <u><Exit></u> Button to quit the application.

Game Setup

Note that a minimum of two players is required. You can use the <u><Dice></u> Button to generate random names for players or the <u><Rubbish Bin></u> Button to remove them. Clicking the <u><Play></u> Button starts the game with a default board provided. Alternatively, you can choose to <u><Load></u> a saved board or <u><Edit></u> the game board before beginning.

Board Editing

In the Board Editing section, only the <u>properties</u> on the game board can be customized. Attributes such as the property's <u>name</u>, <u>price</u>, <u>rent</u>, and <u>color</u> can be modified to suit your preferences.

Saving and Loading

The game supports saving and loading functionality for <u>both game progress and customized boards</u>.

Tips

There are more restrictions and additional guidance that will be displayed to assist players. This variation of Monopoly maintains the core logic of the original game, making the gameplay intuitive.

V. Load Game Frame

Workflow for Selecting Game Record

Once a game record is selected, the bar's color will change to a darker grey, indicating a successful selection. Click the **<Load and Play Button>** to Gameplay Frame (Section XI) and start playing.
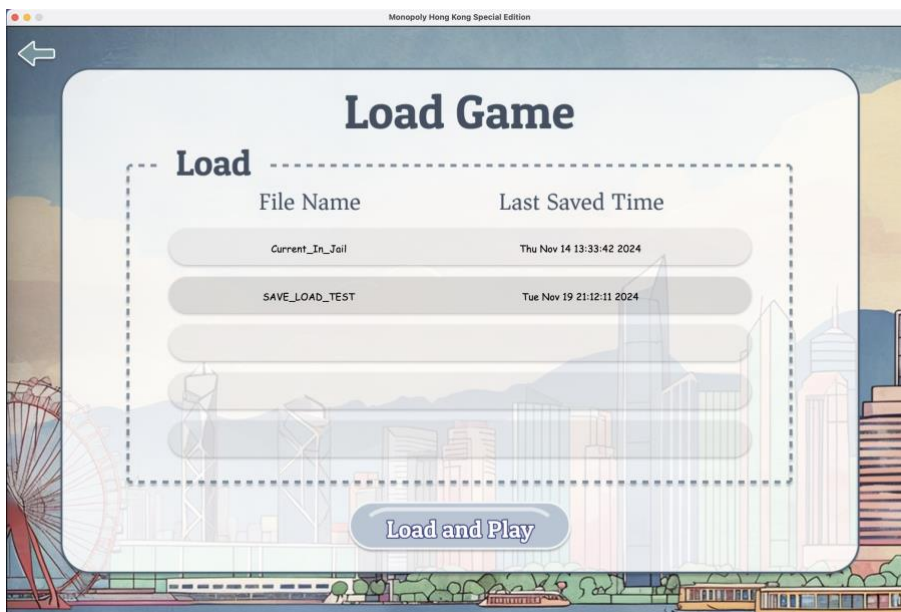

Note that errors may occur if the empty file is selected to Load:
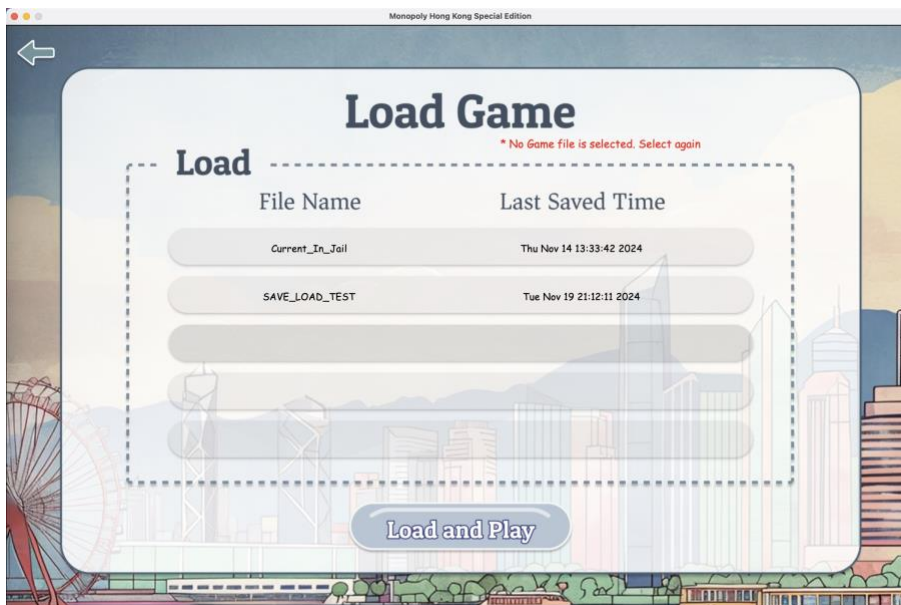
VI. Save Game Frame

Workflow for Saving Game Progress

Click on any blank bar; when it turns darker grey, click the **<Save Button>** to enter a file name (shown in Figure 6.2).

Only five records can be displayed at a time. If more than five game records have been saved previously, you must delete an existing record (by selecting it and clicking the **<Delete Button>**) to create space for a new save.

Figure 6.1

VI. Save Game Frame

To save a Game, click on any blank bar. Once it turns dark grey, indicating a successful selection, click the **<Save Button>**. A new window will appear, prompting you to enter the Game name. In this window, click **<Save Button>** to confirm the operation or **<Cancel Button>** to withdraw.

Enter save file name

Save

Back

Figure 6.2

VII. New Game Frame

Dice Button and Rubbish Bin Button

Press **<Dice Button>** to generate a random player name and **<Rubbish Bin Button>** to remove the player name.

Player Name Input Bar

Select the player name bar to enter a name for each player and press **<Enter>** to confirm.

Note that input failure could cause by the following reasons:

　　1. Player name is not entered in sequence.

　　2. Player name is not within 20 characters
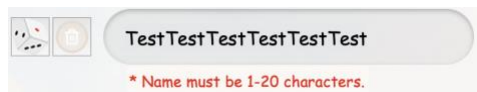
　　3. Player name duplicated
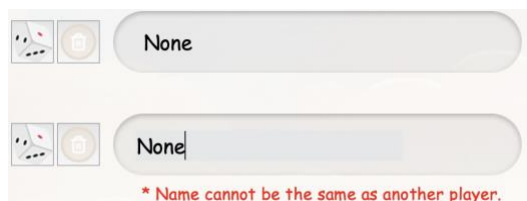
Load Board Button

Click this **<Load Button>** to open the <u>Load Board Frame</u> (Section VIII), where you can load an existing game board.

Edit Board Button
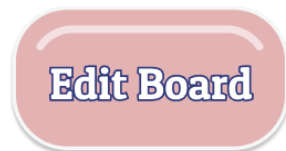
Use this **<Edit Board Button>** to navigate to the <u>Edit Board Frame</u> (Section IX), where you can create a new game board by modifying grid properties.

Play Button

Click this **<Play Button>** takes you to the <u>Gameplay Frame</u> (Section X), where the game officially begins. Note that errors may occur if the number of players is fewer than two:

* At least two players are required to start the game.

VIII. Load Board Frame

Workflow for Selecting Saved Game Board

Once a board setting is selected, the bar's color will change to a darker grey, indicating a successful selection. Click the **<Load Board Button>** to New Game Frame (Section VII).
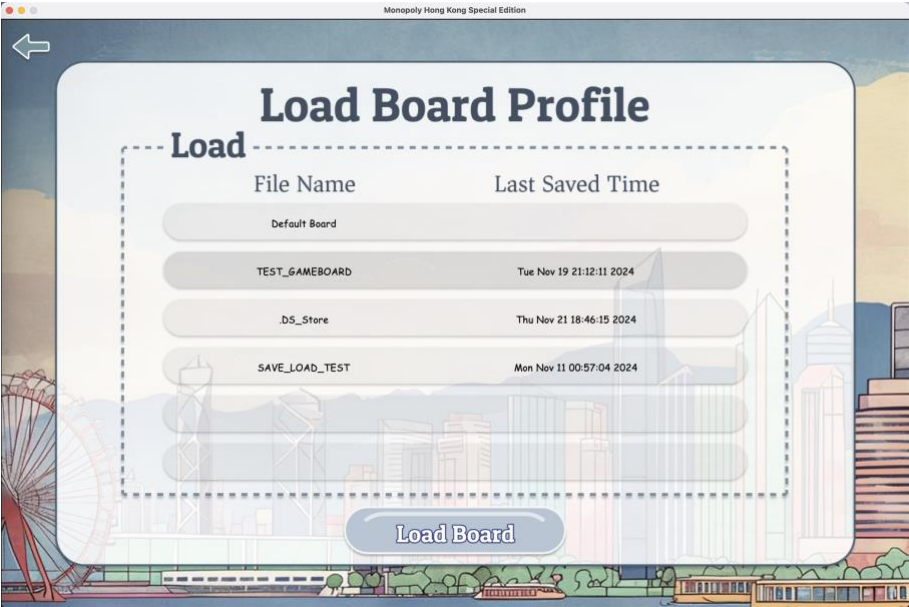
Note that errors may occur if the empty file is selected to Load:
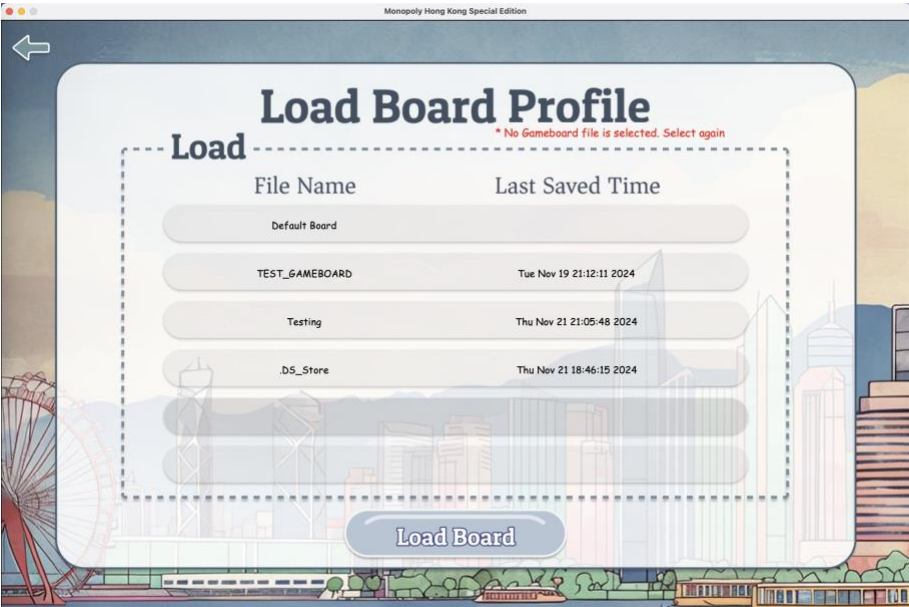
VIII. Load Board Frame

A green message will appear above the **<Load Board Button>**, prompting the user to input player names and start the game.
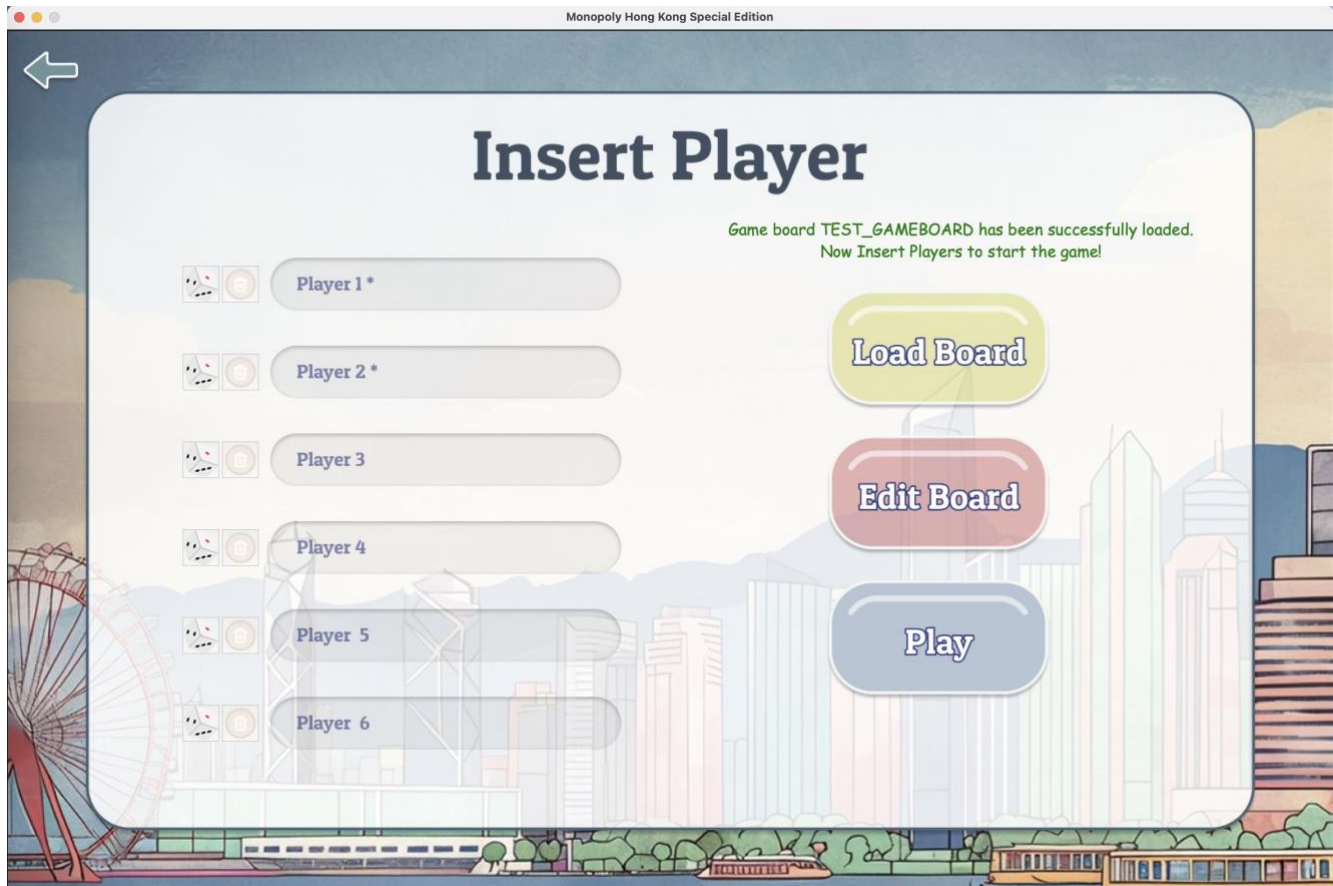
IX. Edit Board Frame

Workflow for Editing Property Attributes

Clicking on a Property, as shown in Figure 9.1, displays the attributes of 'Tuen Mun' on the right side of the game page, as illustrated in Figure 9.2.

Figure 9.1

The **Name** and **Color** can be selected from a dropdown menu, while the **Price** and **Rent** must be entered manually by the user.
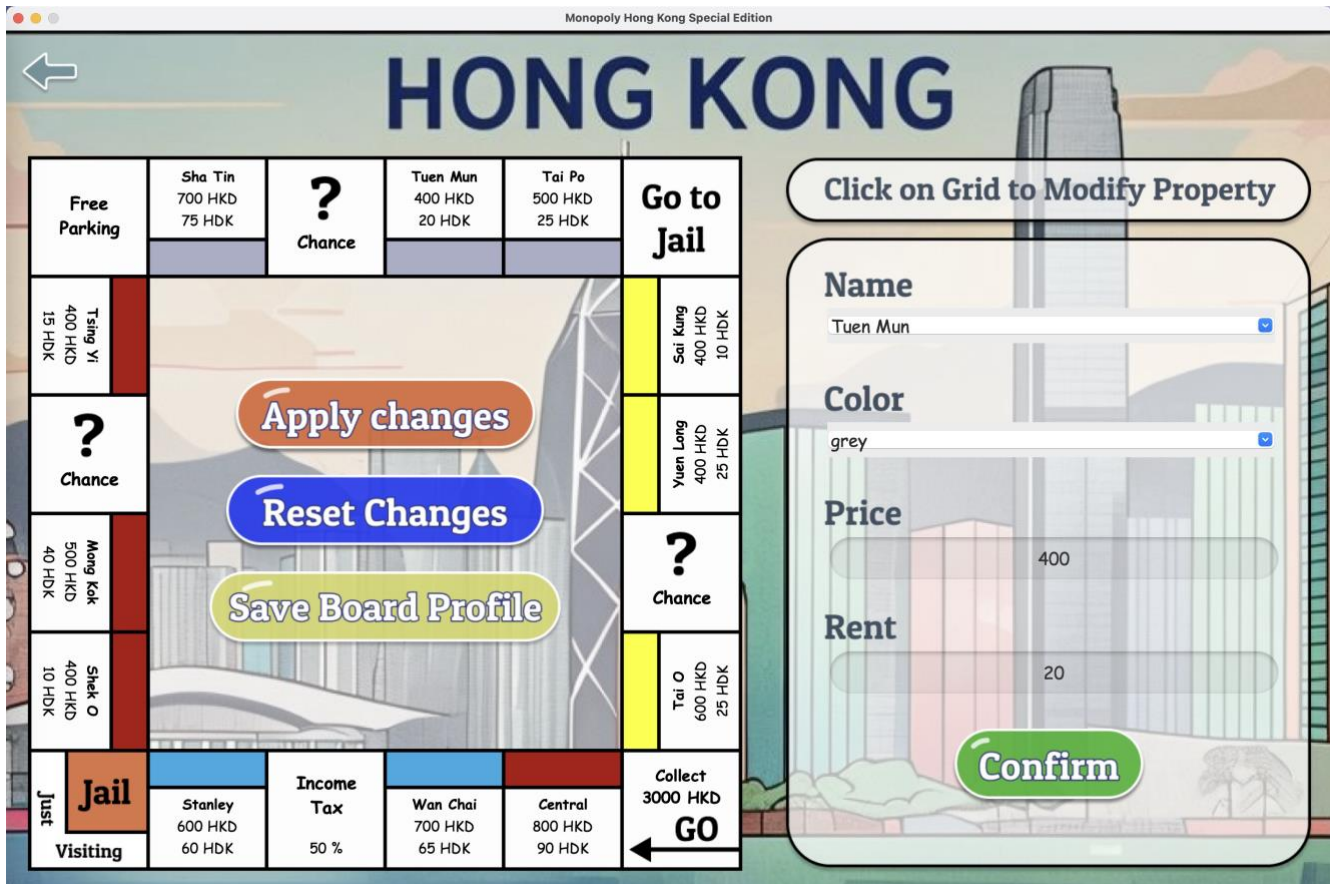
Figure 9.2

Note that errors may occur if Price and Rent are not valid integers:

Once the modification is successful, a temporary preview of the changes will be displayed on the left-hand side.

IX. Edit Board Frame

Apply Changes Button

After making the changes, click the **<Apply Changes Button>** to return to the New Game Frame (Section VII). A green message will appear above the **<Load Board Button>**, prompting the user to input player names and start the game.
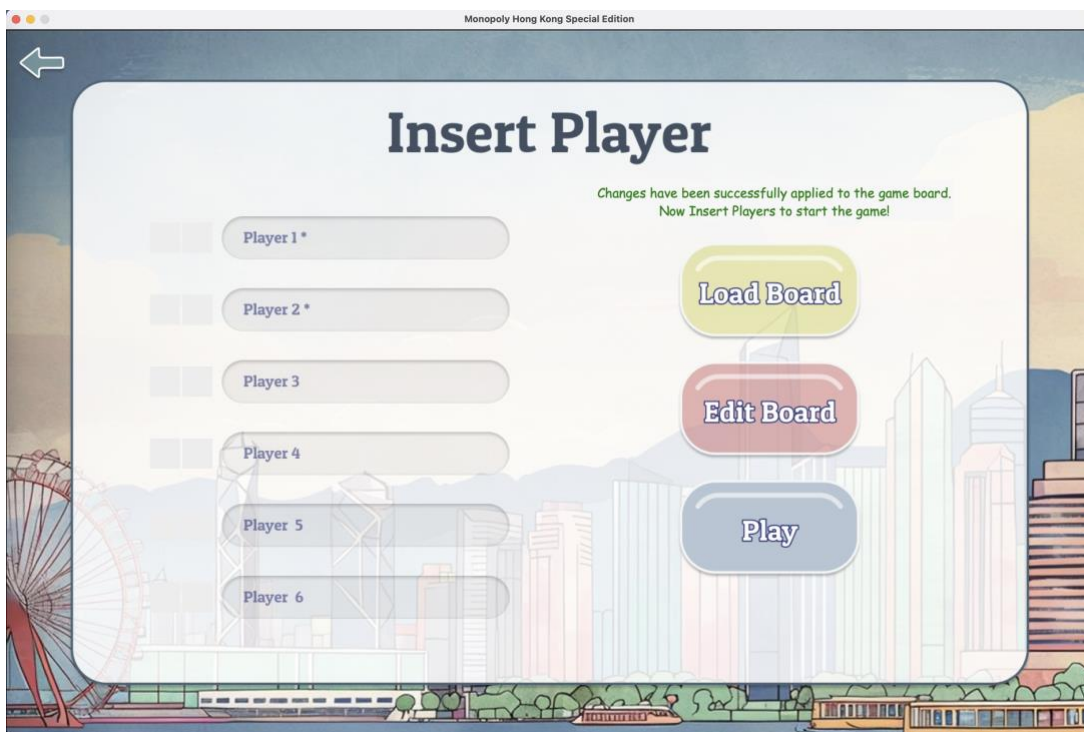
Note that errors may occur if there exits same property name:
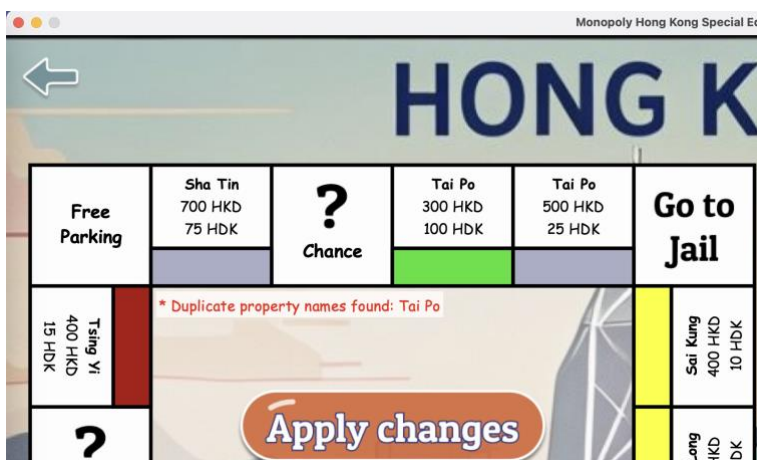
IX. Edit Board Frame

Reset Changes Button

After making changes, the user can undo the modifications once by clicking the **<Reset Changes Button>**. This will revert the property's attributes to their most recent saved values.

```
Tai Po
300 HKD
100 HDK
```

To perform this action, click on the property grid, and then select the **<Reset Changes Button>** to restore the previous attributes.

```
Tuen Mun
400 HKD
20 HDK
```

Save Board Profile Button

Save Board Profile

After clicking this **<Save Board Profile Button>**, the game will navigate to Save Board Profile Frame (Section X).

X. Save Board Profile Frame
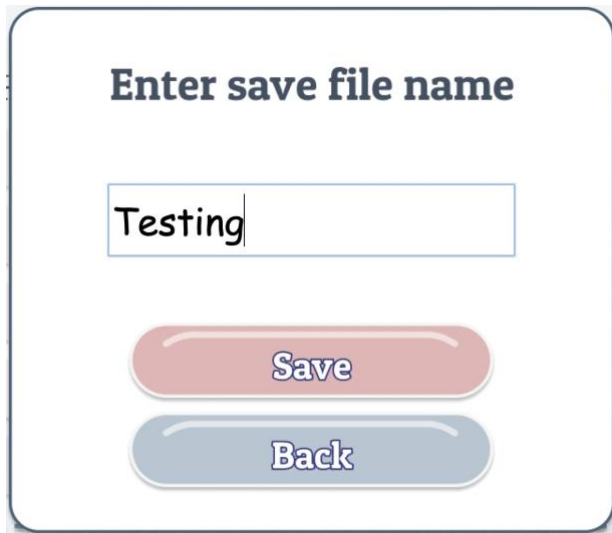
Workflow for Saving Board Settings

Clicking the **<Save Board Profile Button>** in <u>Edit Board Frame</u> (Section IX), it will open the <u>Save Board Profile Frame</u> (Section X). On this page, you can also delete a file by selecting it and clicking the **<Delete Button>**.
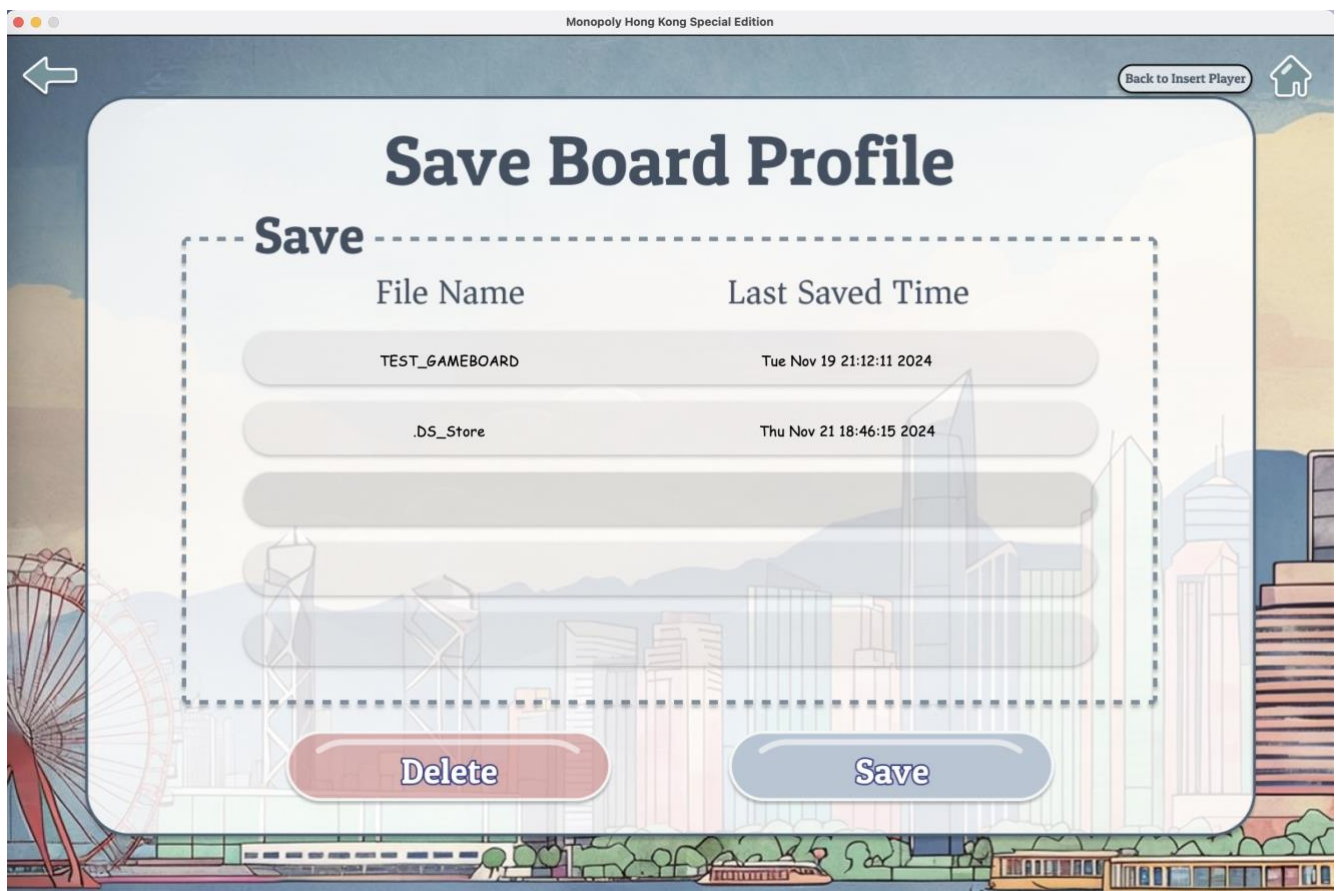
X. Save Board Profile Frame

To save a new board, click on any blank bar. Once it turns dark grey, indicating a successful selection, click the **<Save Button>**. A new window will appear, prompting you to enter the Game Board name. In this window, click **<Save Button>** to confirm the operation or **<Cancel Button>** to withdraw.

Enter save file name

Testing

Save

Back

XI. Gameplay Frame

Player Avatar, Player Identifier and Player Info

 Player Avatar

 Player Identifier

The player avatar represents a player's position and moves around the game board during gameplay. The player identifier is displayed permanently alongside the player's name, allowing players to recognize the corresponding color. This ensures a clear match between the Player Avatar, Player Identifier, and the respective player. All player information related to the game status is displayed on the right-hand side of the board.
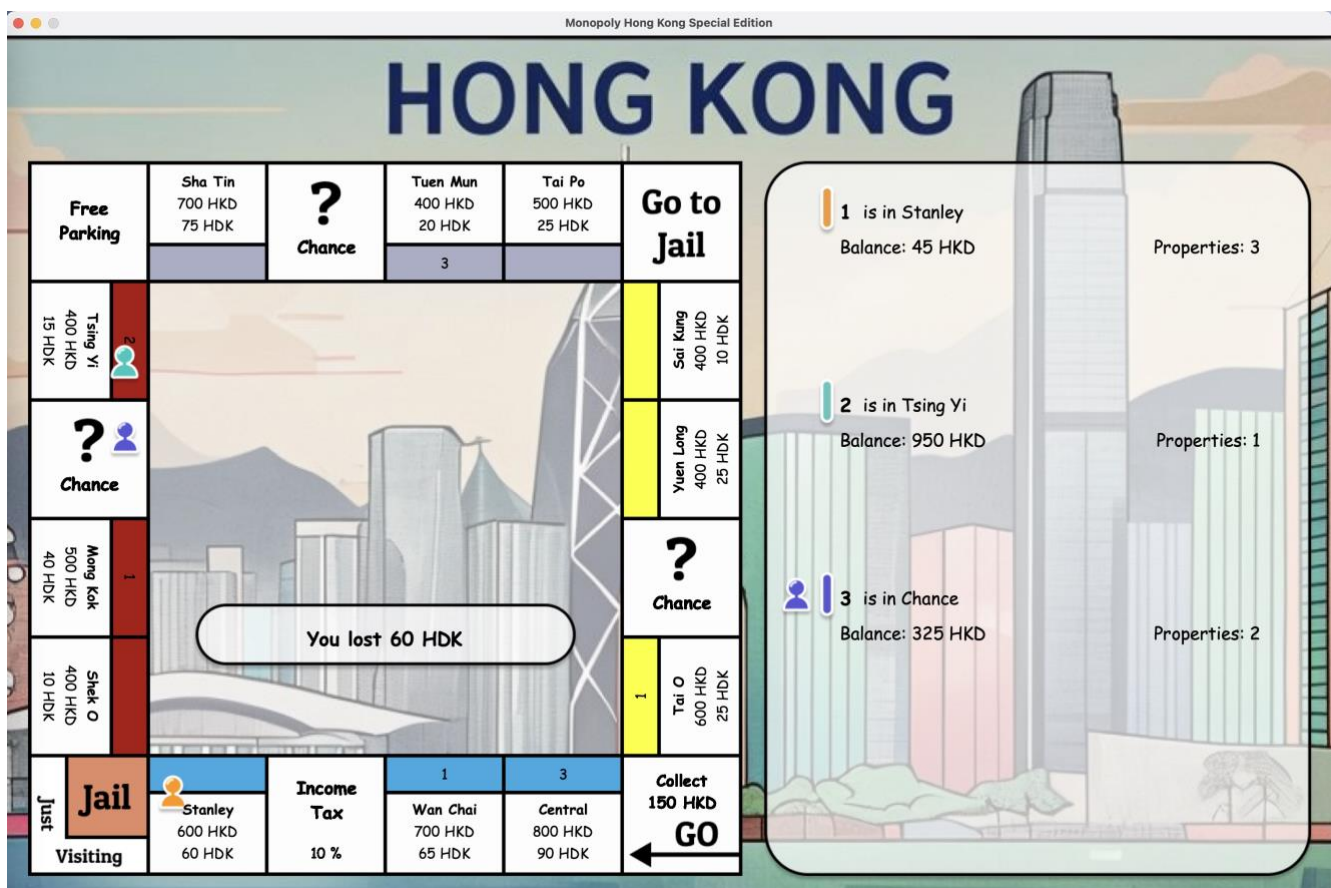
XI. Gameplay Frame

Save and Quit Button

Clicking this button will take you to the <u>Save Game Frame</u> (Section VI).

Poll Dice Button

After clicking the **<Roll Dice Button>**, a dice rolling animation will play. The animation and its results can be found in separate folders within the assets directory.
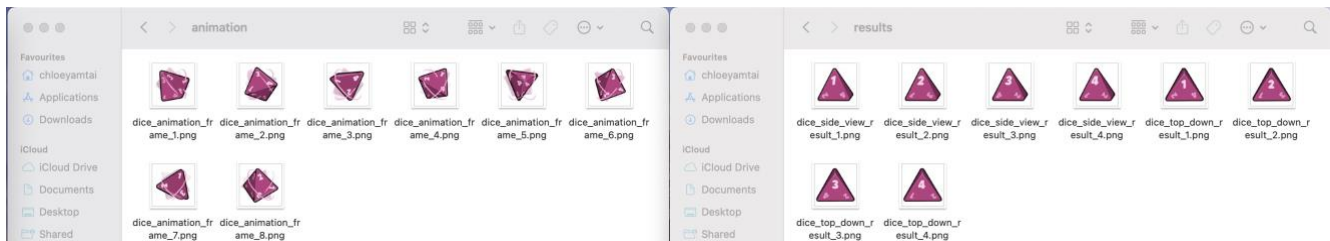
XI. Gameplay Frame

Gameplay Information (Possible States Listing)

Various information is displayed during gameplay to assist players and enhance their overall experience. Examples include:
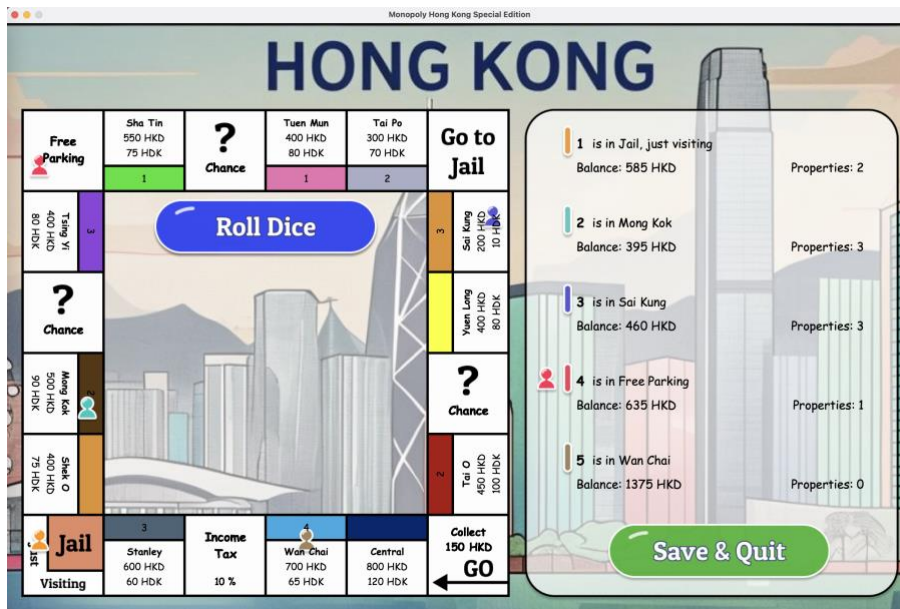
Each player starts with rolling a dice by clicking the <Roll Dice Button>.
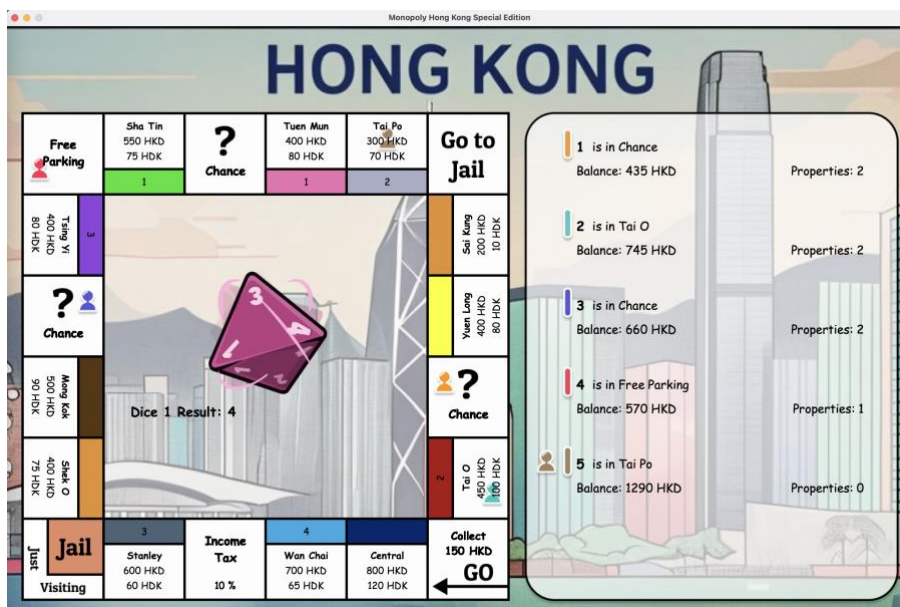
Dice 1 Result is displayed.
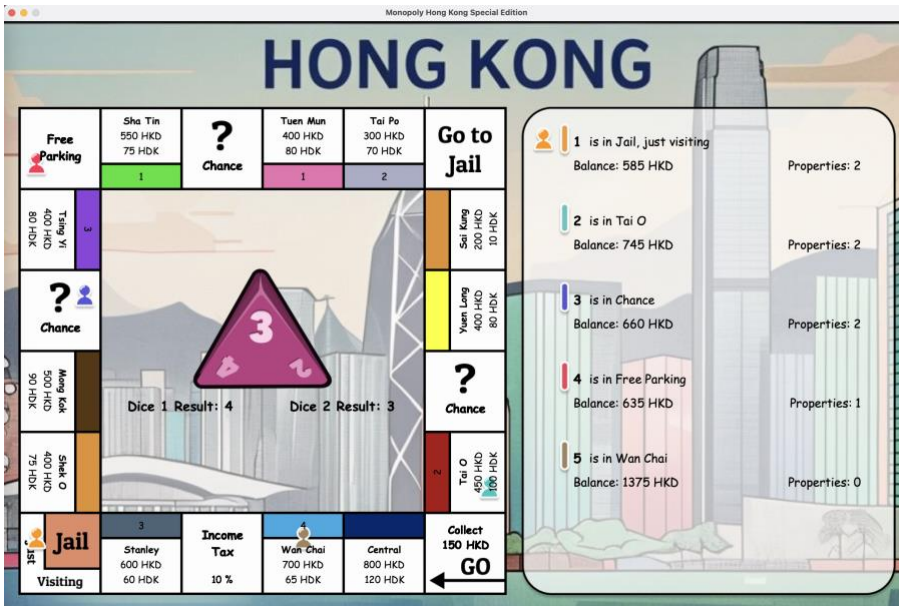
XI. Gameplay Frame

Dice 2 Result is displayed.

Player 1 is in "Jail, just visiting" status.

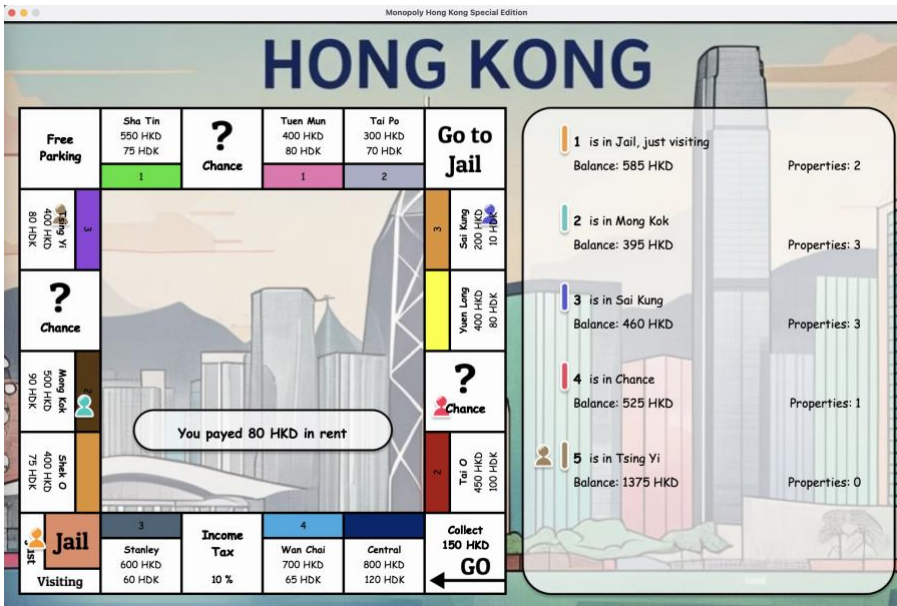*Player 4 is in "Free Parking" status.*
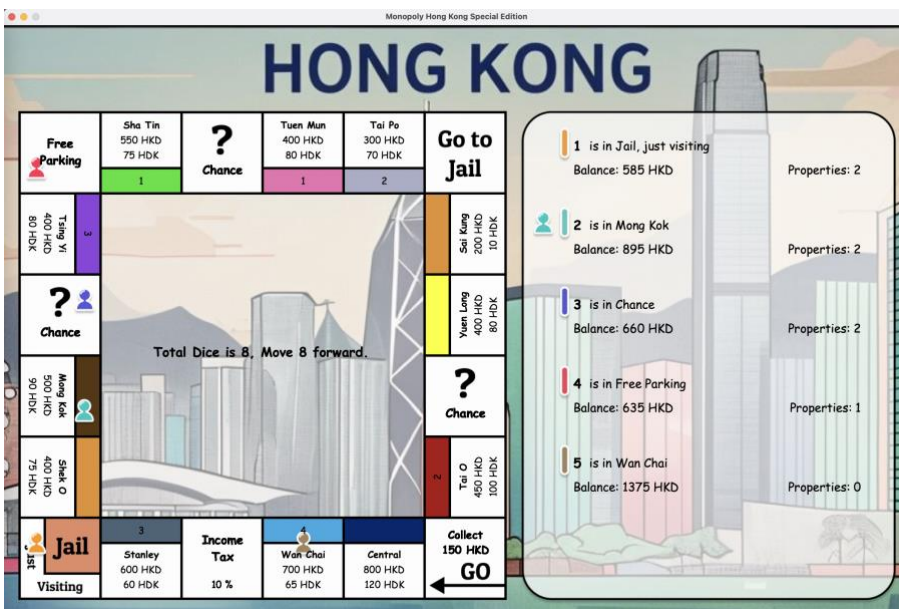
Total Dice Result is displayed.
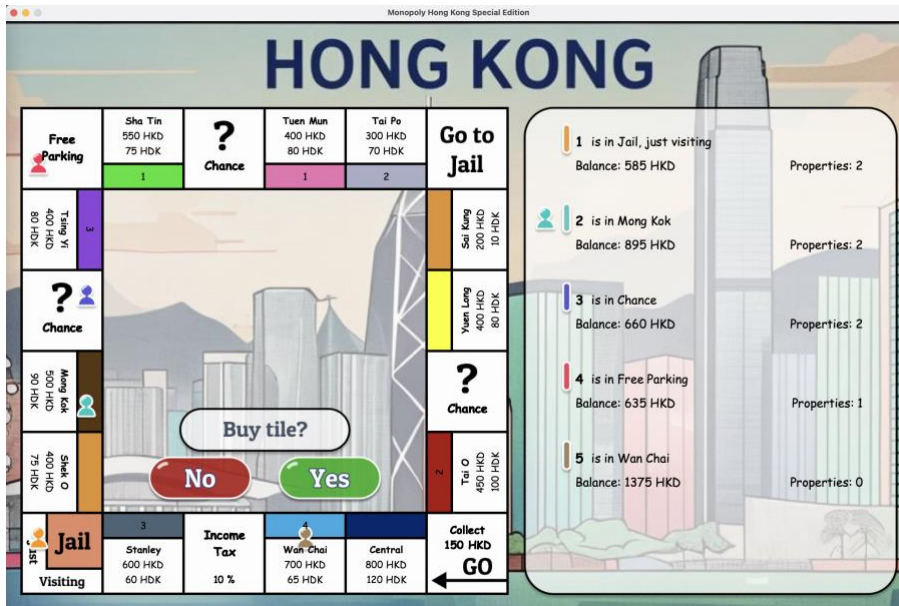
XI. Gameplay Frame

When a player lands on an unowned property, a purchase option is provided.
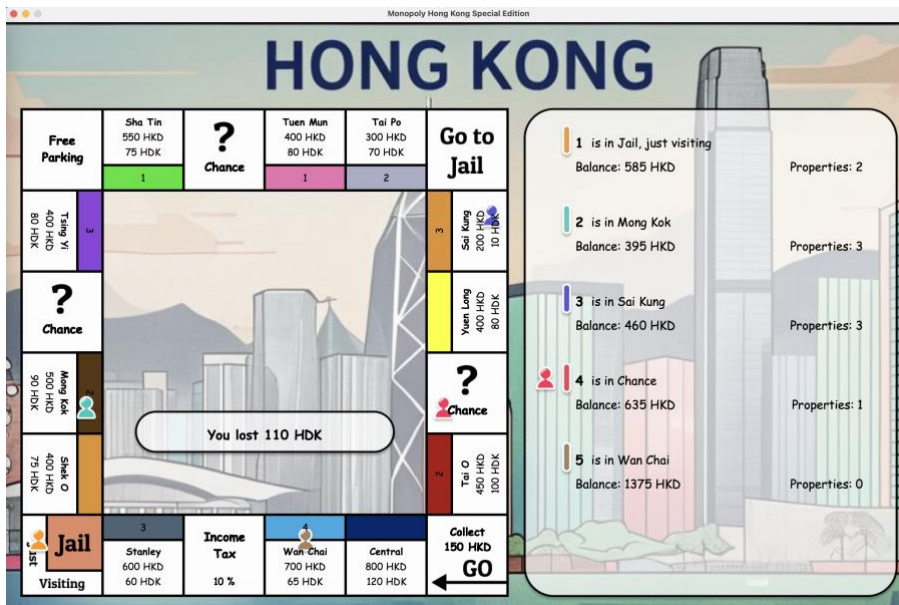
When a player lands on a Chance grid, a random amount of money is either won or lost.
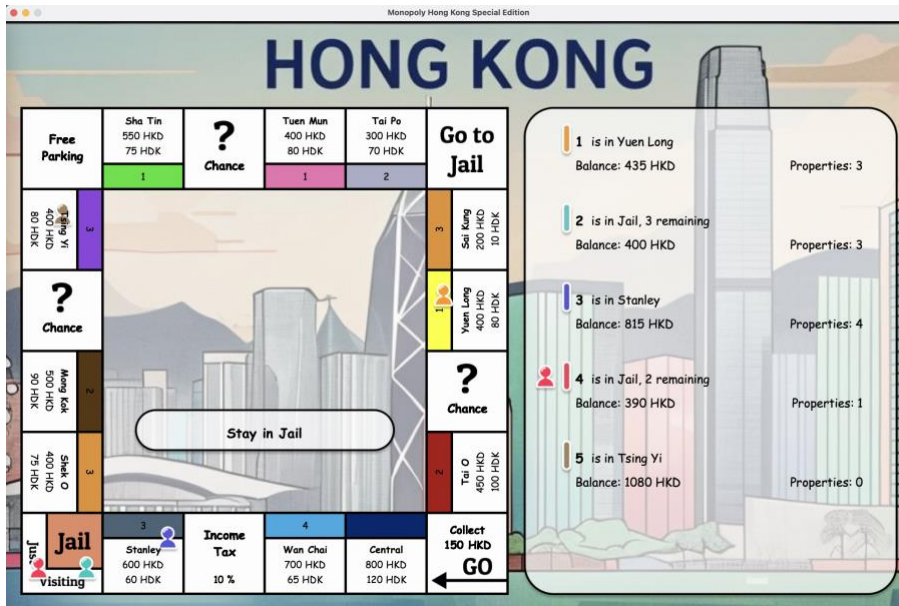
XI. Gameplay Frame

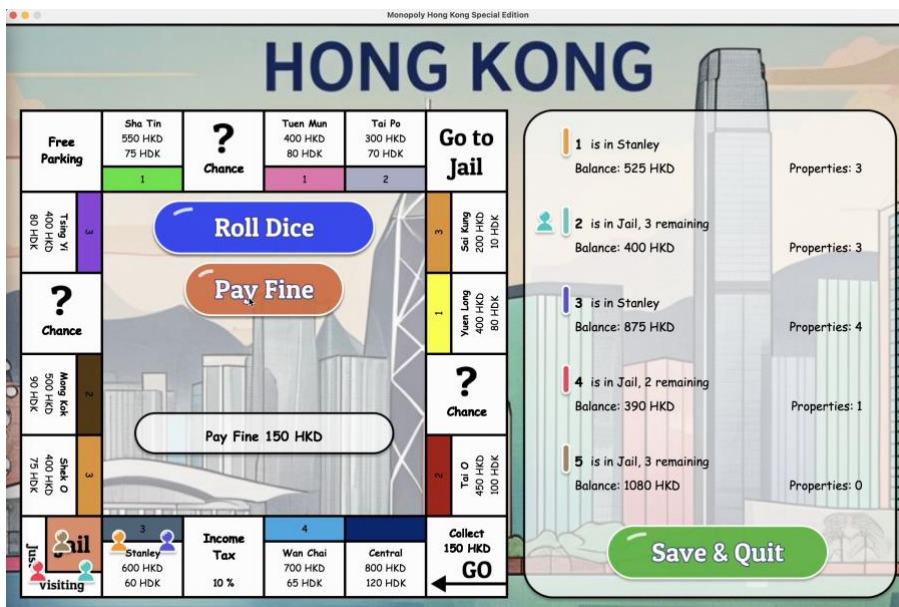*When players land on another players' property, they must pay rent to the property owner.*
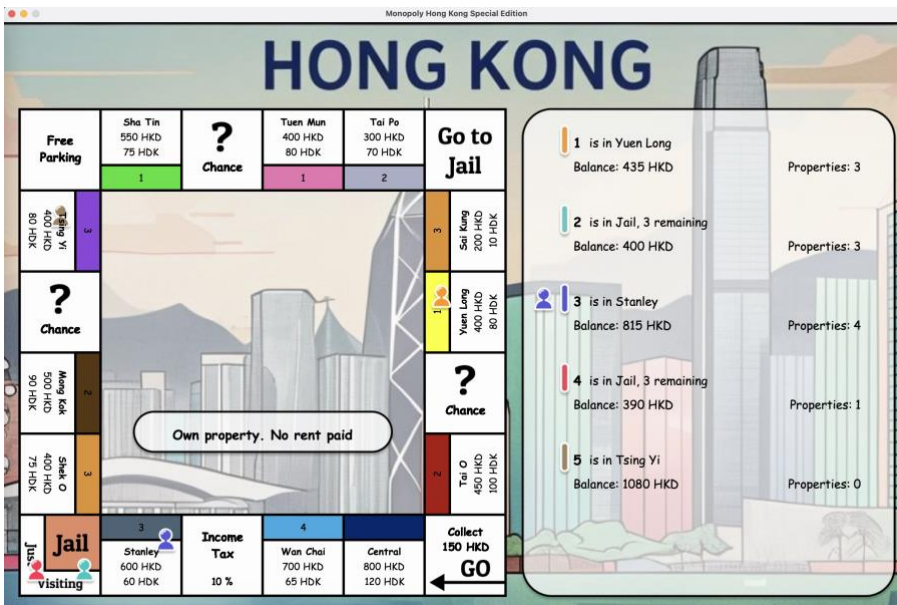
When players land on their own properties, they do not need to pay the rent.

When a player is in jail, they must roll the dice for up to three rounds.
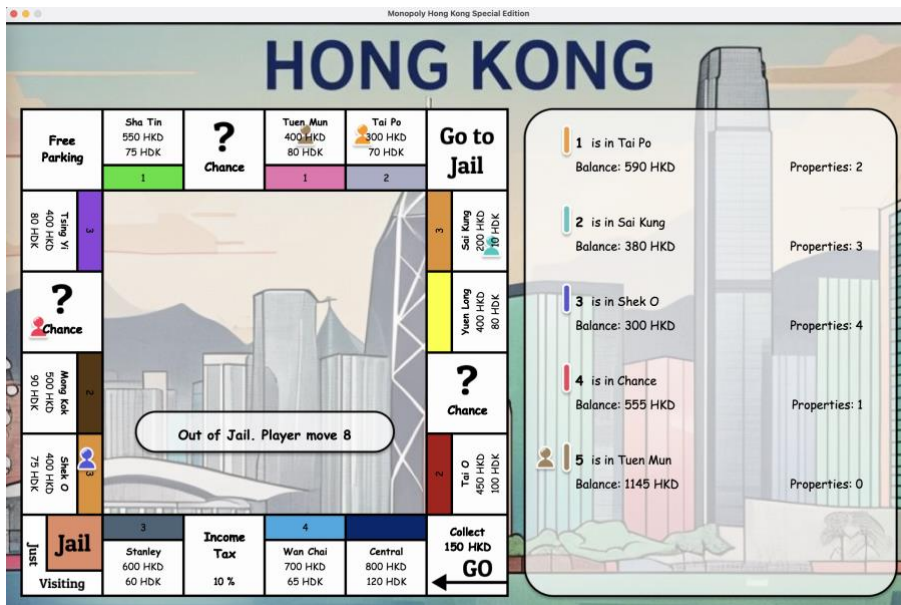

In the first and second rounds, the player can choose to either pay a fine (150 HKD),

or roll the dice in an attempt to roll a double and get out.
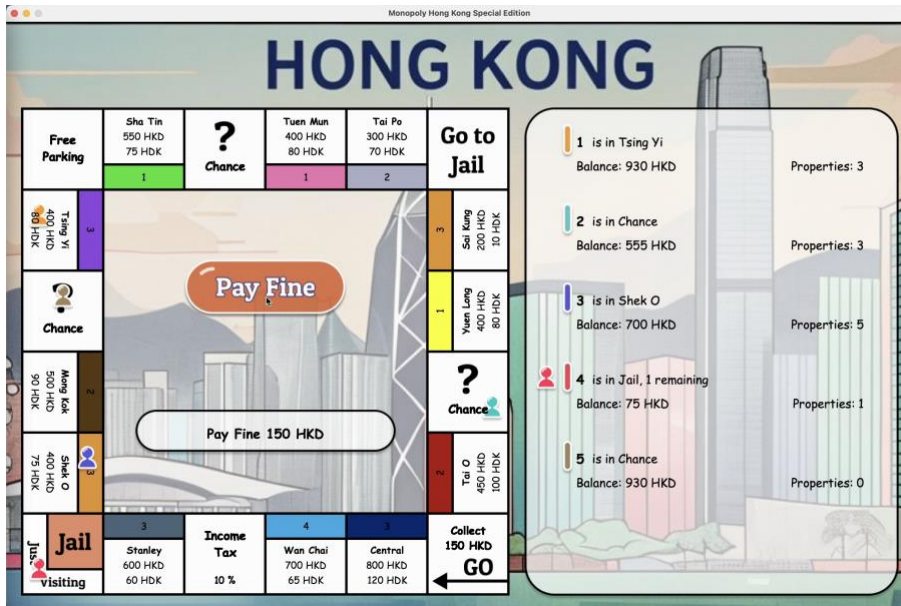
XI. Gameplay Frame

*In the third round, the <**Pay Fine Button**> is unavailable.*
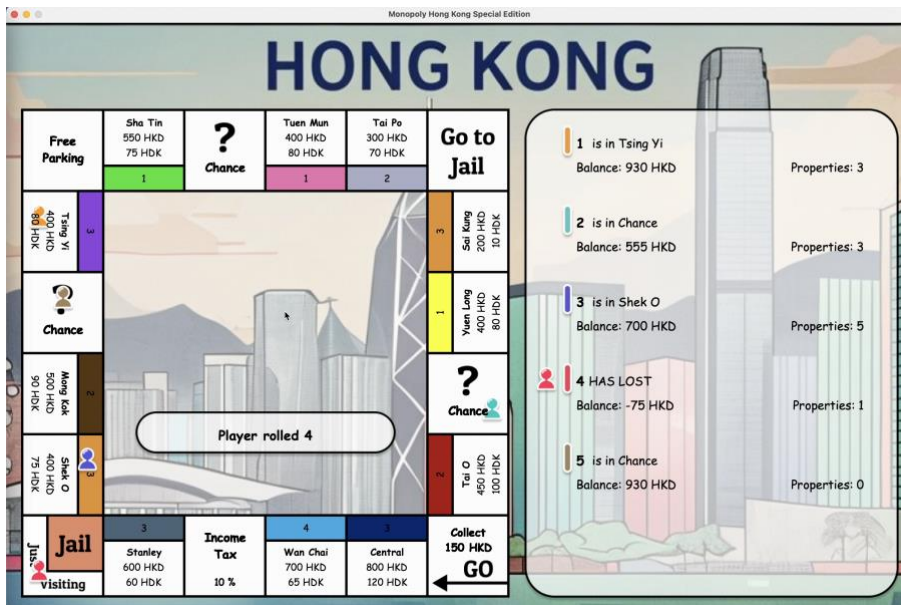

The player must roll the dice; if a double is rolled. They are released and move forward.
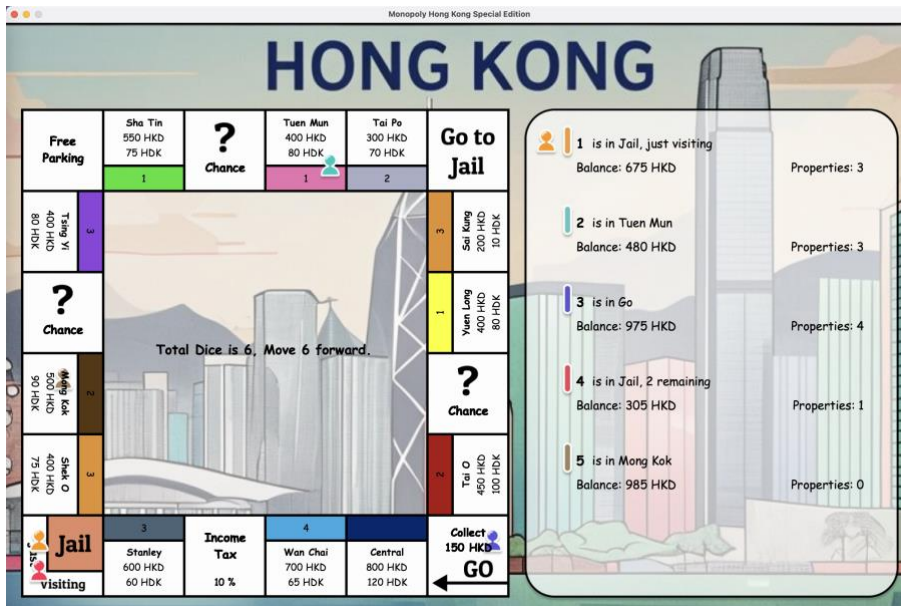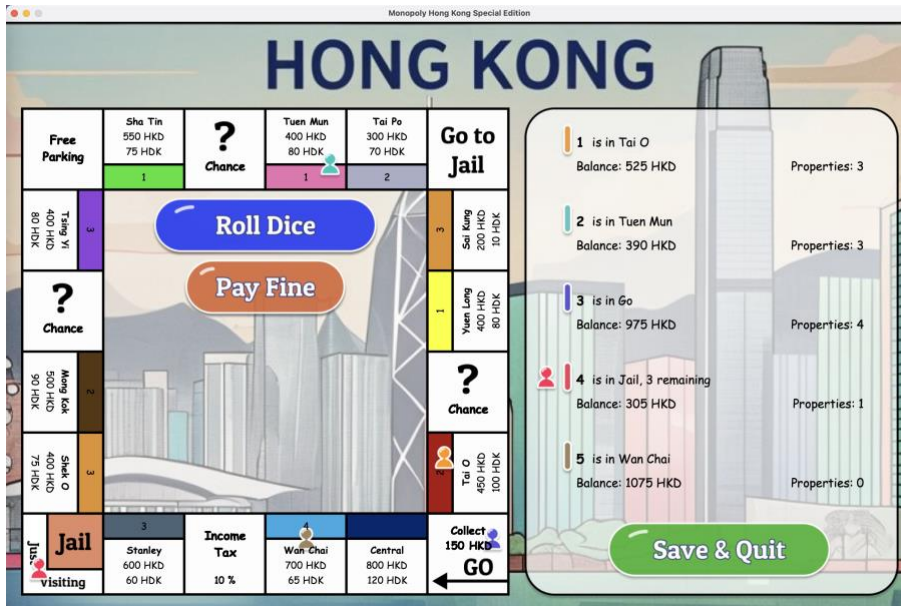
XI. Gameplay Frame

If no double is rolled, the player is forced to pay fine.

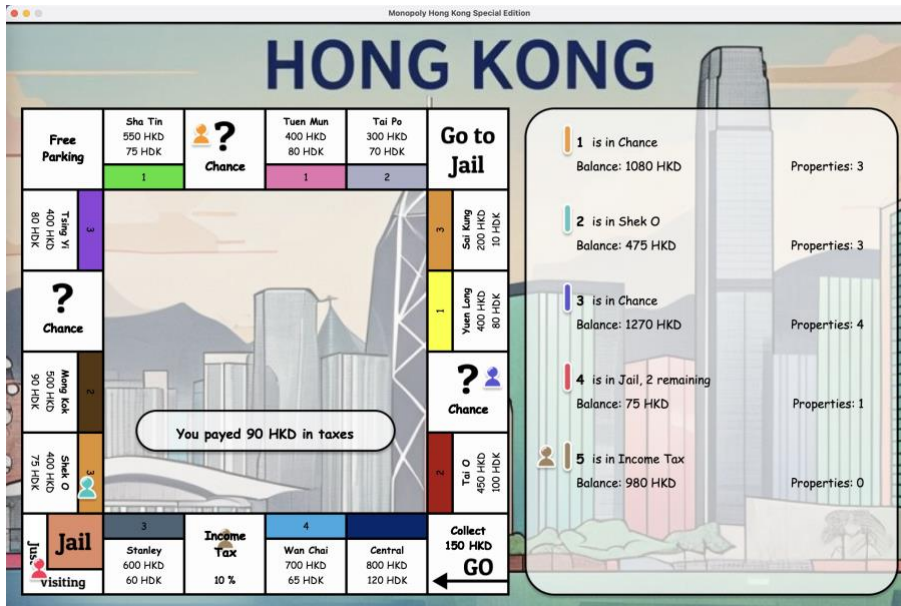*After the fine is paid, move forward by the steps of the previous rolling results.*

After paying fine, the Player 4 only has -75 HKD, Player 4 is broke.
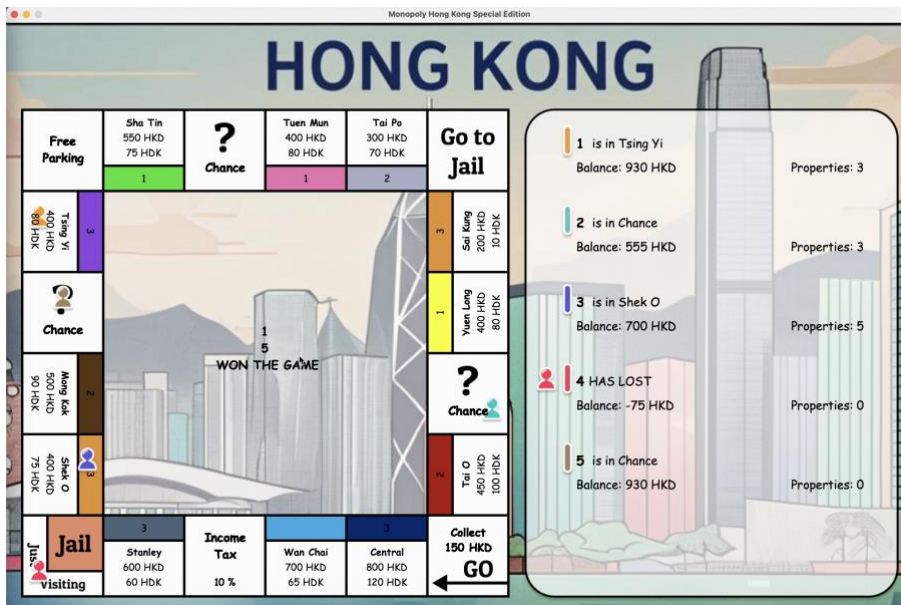
XI. Gameplay Frame

After a Player finishes one round, take Player 1, for example, receives 150 HKD.

XI. Gameplay Frame

When players land on Income Tax, they must pay 10% of their total money.

After a total of 100 rounds, the game ends with Player 1 and Player 5 as the winners.

Both players have the highest amount, 930 HKD.