

# **TCP2201 Project**

**Lecture Section: TC3L**  
**Tutorial Section: T10L**

**Trimester 2310**

**by Group06**

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# A. Compile and Run Instructions

## Method 1: Command Prompt

```
C:\Users\nicho\Downloads\TC3L_T10L_Group06\TalabiaChess>cd src

C:\Users\nicho\Downloads\TC3L_T10L_Group06\TalabiaChess\src>del /s /q *.class
Deleted file - C:\Users\nicho\Downloads\TC3L_T10L_Group06\TalabiaChess\src\Main.class
Deleted file - C:\Users\nicho\Downloads\TC3L_T10L_Group06\TalabiaChess\src\controller\FileController.class
Deleted file - C:\Users\nicho\Downloads\TC3L_T10L_Group06\TalabiaChess\src\controller GameController.class
Deleted file - C:\Users\nicho\Downloads\TC3L_T10L_Group06\TalabiaChess\src\controller\Mouse.class
Deleted file - C:\Users\nicho\Downloads\TC3L_T10L_Group06\TalabiaChess\src\model\Board.class
Deleted file - C:\Users\nicho\Downloads\TC3L_T10L_Group06\TalabiaChess\src\model\ChessModel.class
Deleted file - C:\Users\nicho\Downloads\TC3L_T10L_Group06\TalabiaChess\src\model\HourGlass.class
Deleted file - C:\Users\nicho\Downloads\TC3L_T10L_Group06\TalabiaChess\src\model\Piece.class
Deleted file - C:\Users\nicho\Downloads\TC3L_T10L_Group06\TalabiaChess\src\model\Plus.class
Deleted file - C:\Users\nicho\Downloads\TC3L_T10L_Group06\TalabiaChess\src\model\Point.class
Deleted file - C:\Users\nicho\Downloads\TC3L_T10L_Group06\TalabiaChess\src\model\Sun.class
Deleted file - C:\Users\nicho\Downloads\TC3L_T10L_Group06\TalabiaChess\src\model\Time.class
Deleted file - C:\Users\nicho\Downloads\TC3L_T10L_Group06\TalabiaChess\src\view\GameMenuBar$1.class
Deleted file - C:\Users\nicho\Downloads\TC3L_T10L_Group06\TalabiaChess\src\view\GameMenuBar$2.class
Deleted file - C:\Users\nicho\Downloads\TC3L_T10L_Group06\TalabiaChess\src\view\GameMenuBar$3.class
Deleted file - C:\Users\nicho\Downloads\TC3L_T10L_Group06\TalabiaChess\src\view\GameMenuBar$4.class
Deleted file - C:\Users\nicho\Downloads\TC3L_T10L_Group06\TalabiaChess\src\view\GameMenuBar.class
Deleted file - C:\Users\nicho\Downloads\TC3L_T10L_Group06\TalabiaChess\src\view\GamePanel.class

C:\Users\nicho\Downloads\TC3L_T10L_Group06\TalabiaChess\src>javac *.java

C:\Users\nicho\Downloads\TC3L_T10L_Group06\TalabiaChess\src>java Main
```

**Step 1:** Navigate to the src directory

```
cd src
```

**Step 2:** Delete any existing compiled class files (if you have no existing compiled class files, just ignore this line of command, and proceed to Step 3)

```
del /s /q *.class
```

**Step 3:** Compile the Java source code

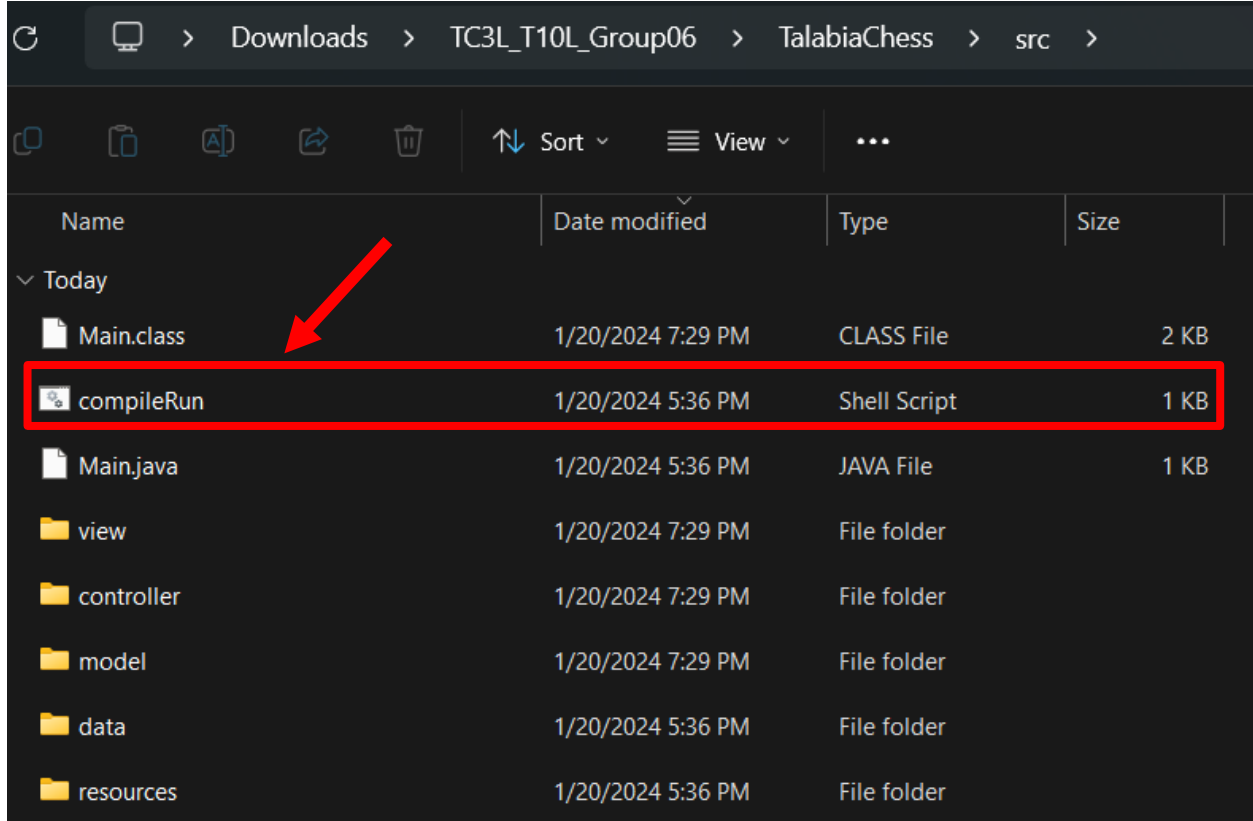
```
javac *.java
```

**Step 4:** Run the main file (Main.java)

```
java Main
```

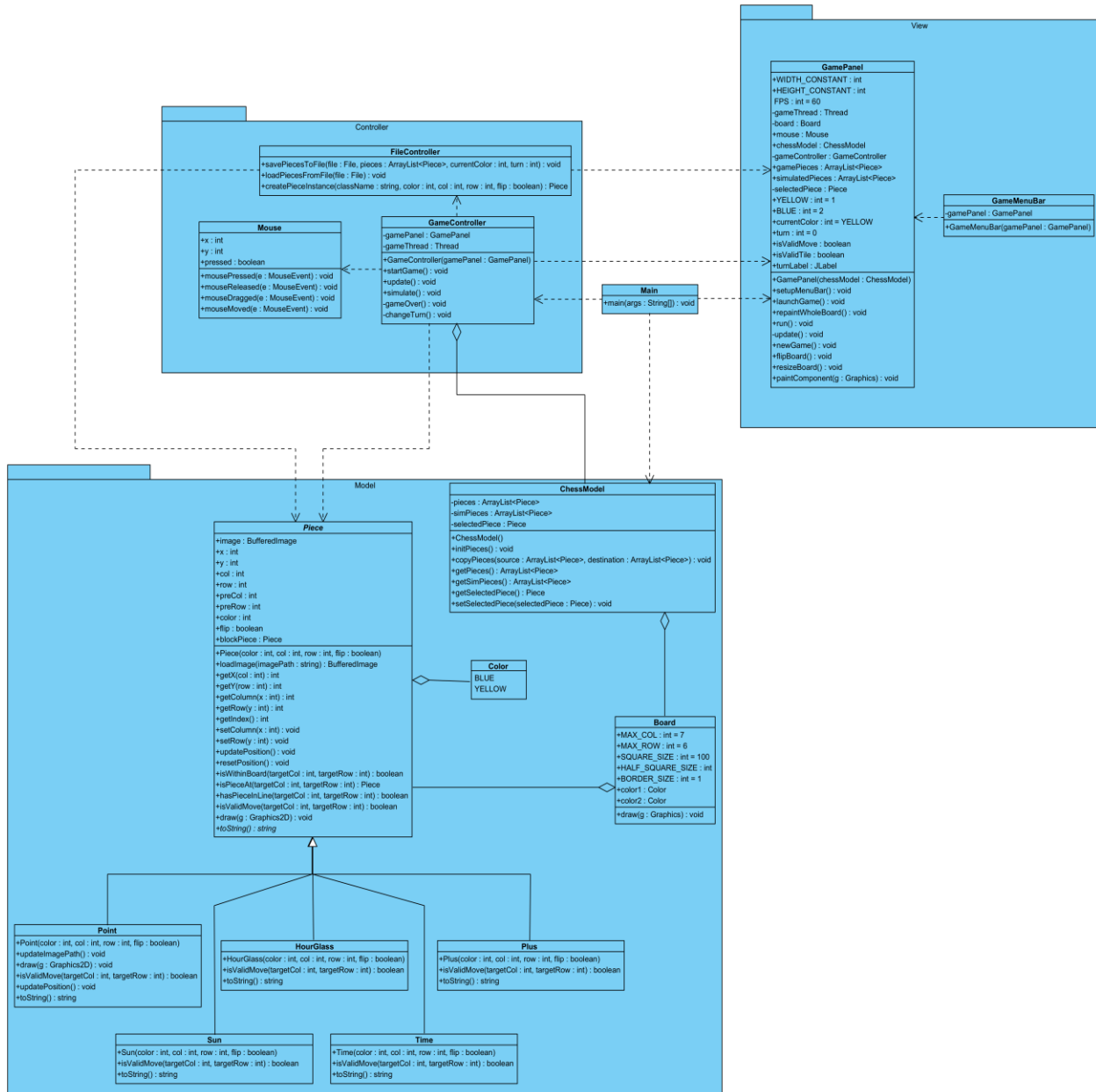
Then, the Talabia Chess Game should appear and be ready to play.

## Method 2: Shell Script

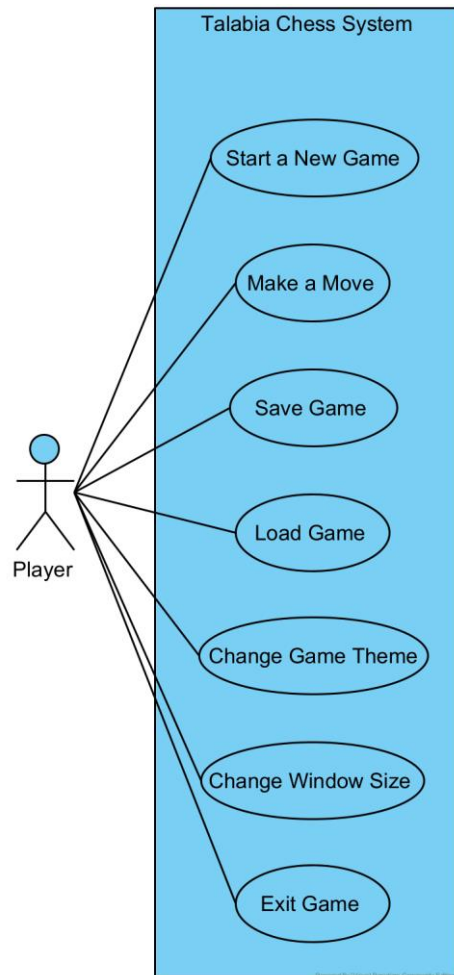


Navigate to **src** folder in your Windows Explorer. Then, click on “**compileRun.sh**” to run the Talabia Chess Game.

## B. UML Class Diagram

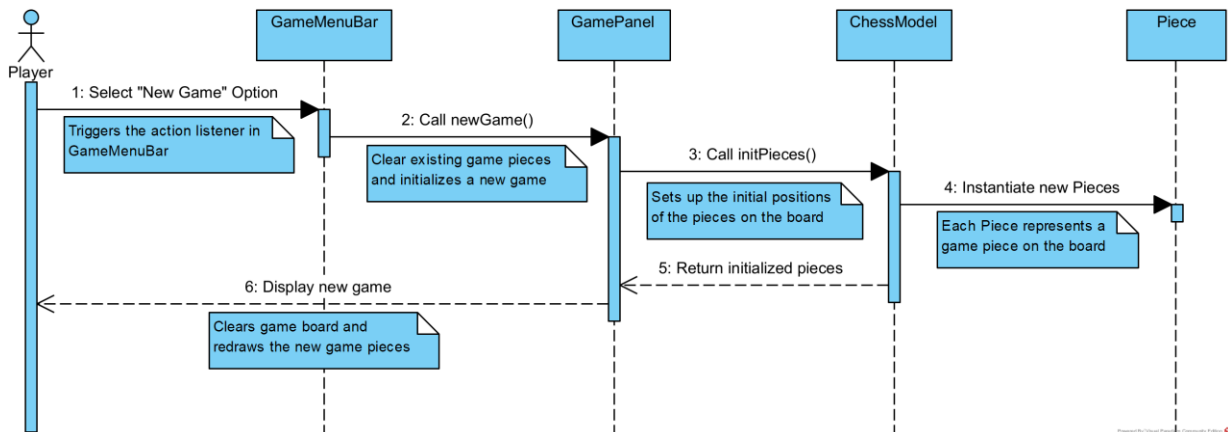


## C. Use Case Diagram

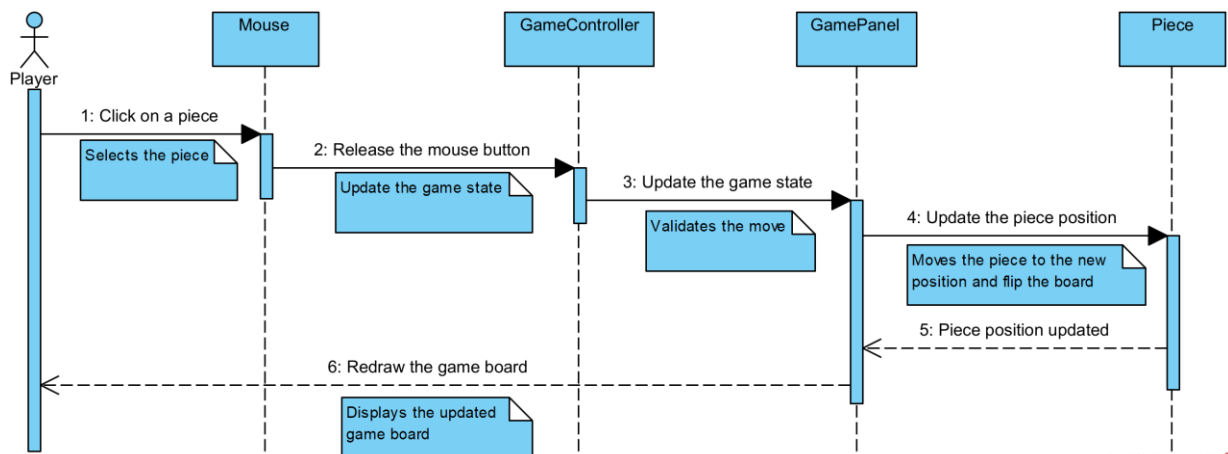


## D. Sequence Diagrams

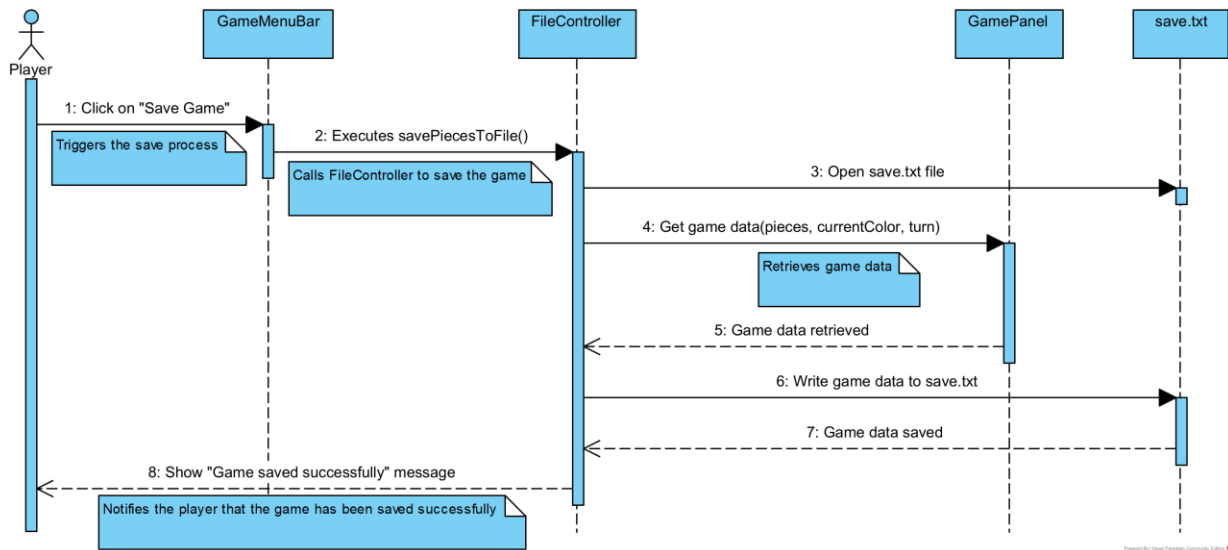
### 1) Start a New Game



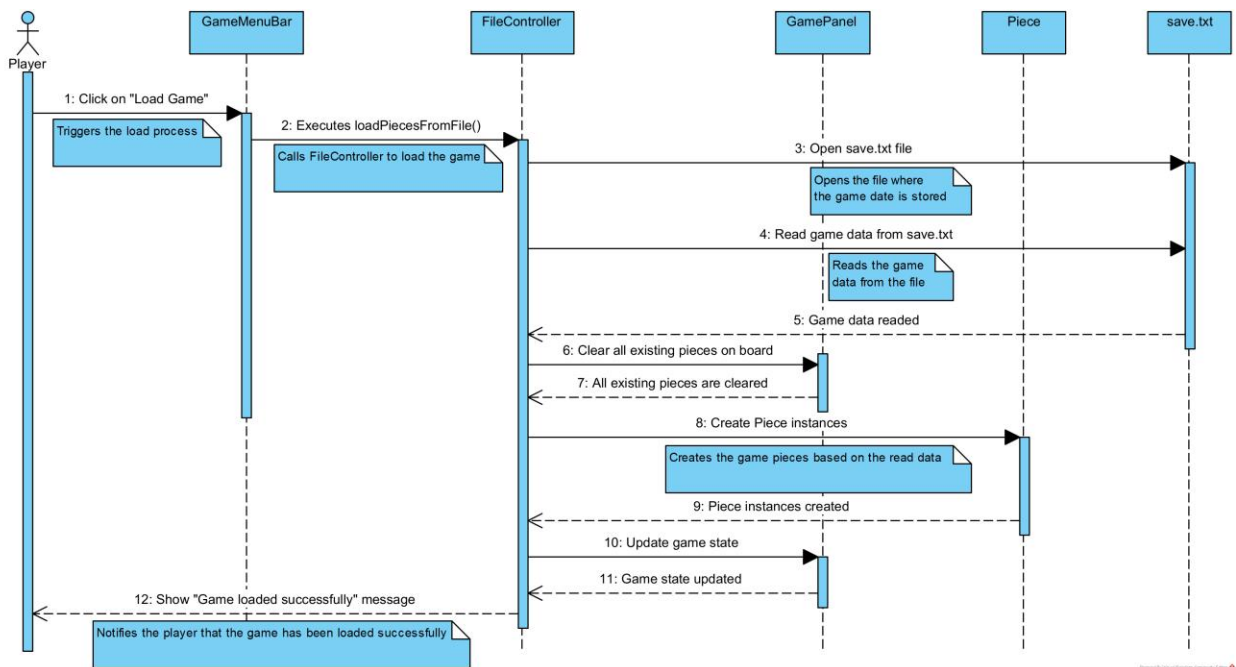
### 2) Make a Move



### 3) Save Game

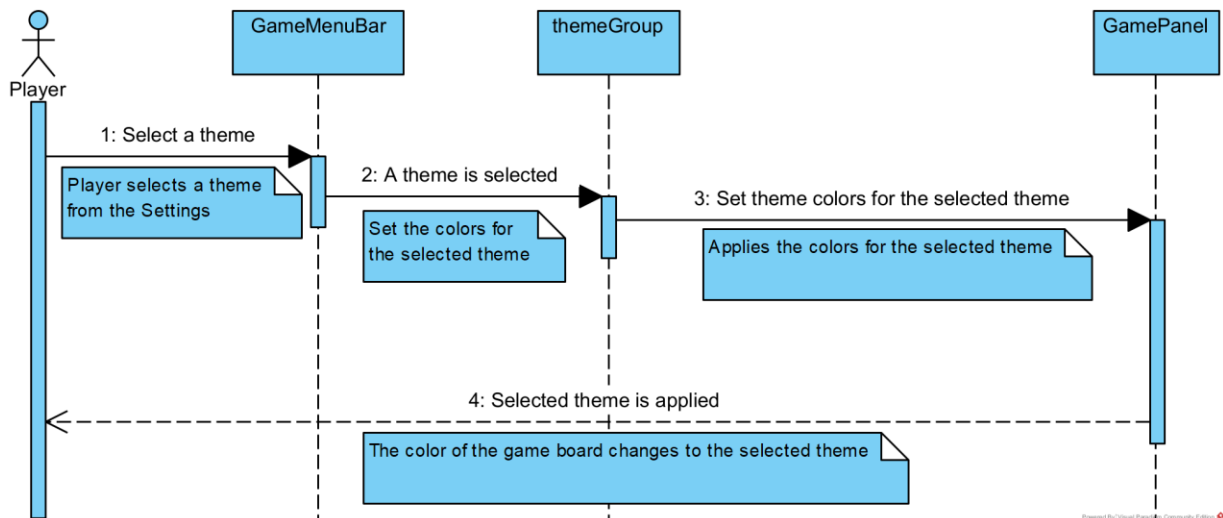


### 4) Load Game

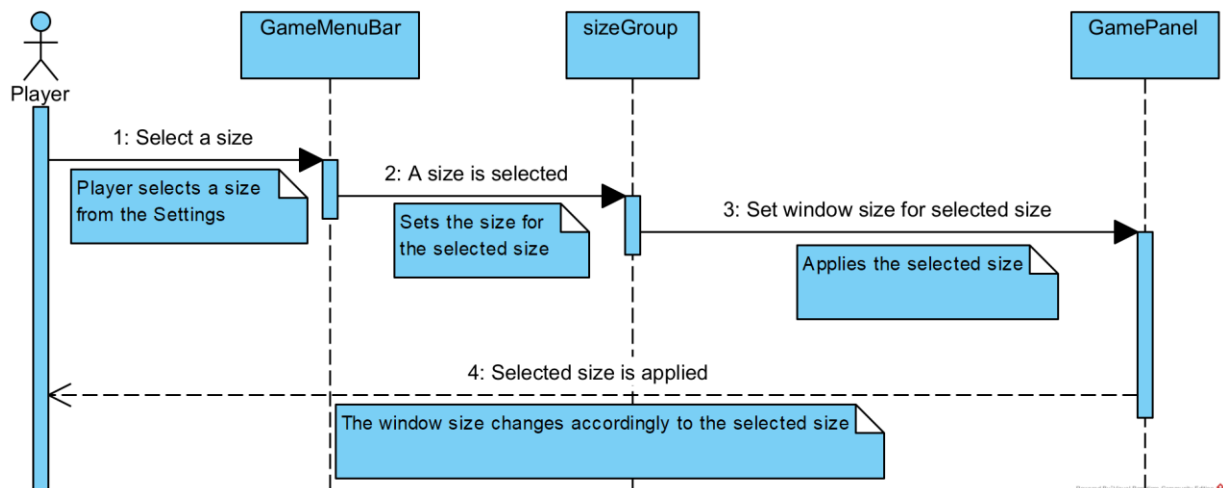




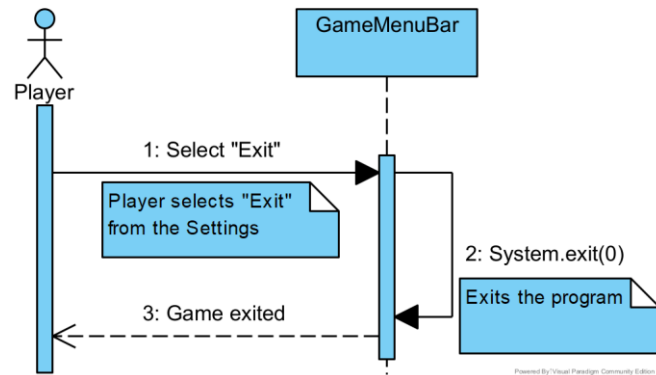
## 5) Change Game Theme



## 6) Change Window Size



## 7) Exit Game

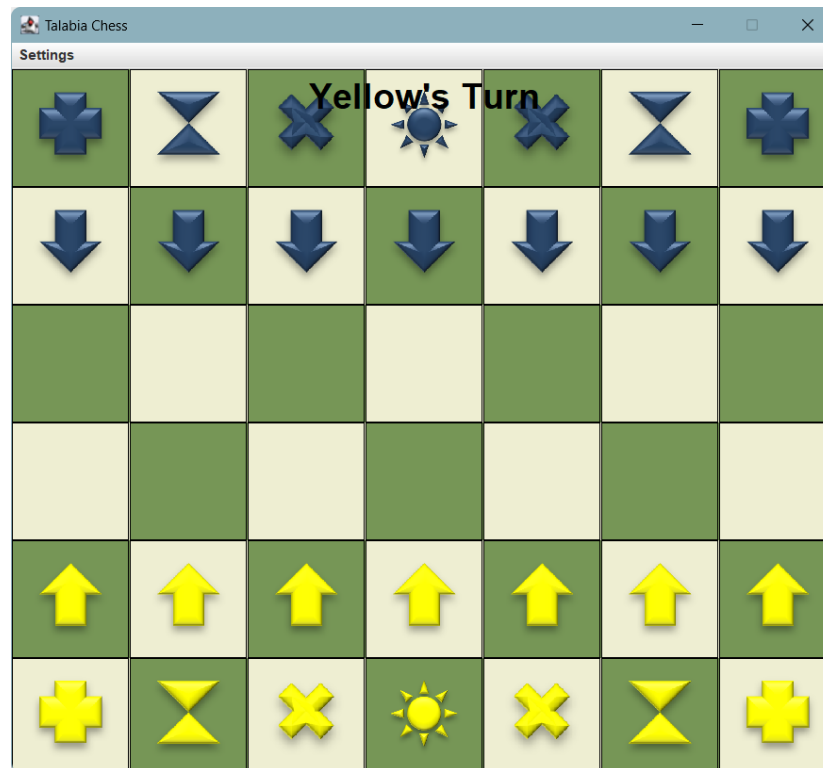


## E. User Documentation

### 1) User Manual for Talabia Chess Game

This user manual will guide you through the usage of the Talabia Chess Game developed using Java language. The game consists of several classes and interfaces that handle different aspects such as controlling game logic, handling user input, displaying the game interface, and managing game data.

### 2) Game Interface



The game interface is divided into several sections:

- **Game Board:** This is the main playing area of the game. Each square represents a potential position for a piece. The game board is displayed in a grid pattern.
- **Game Pieces:** These are the playable pieces, which are Hour Glass, Plus, Point, Sun and Time in the game. Each piece has a unique ability and can only move according to its rules.
- **Settings:** This is located at the top left corner of the game window and contains options for starting a new game, saving the current game state, loading a previously saved game state, changing the game theme, resizing the game window, and exiting the game.
- **Turn Indicator:** This displays the current player's turn. It flips the board and changes color (Blue/Yellow) depending on whose turn it is.

### 3) Playing the Game







Below are the step-by-step guide on how to play this Talabia Chess Game:

1. **Starting a New Game:** To start a new game, select the "New Game" option from the "Settings" menu in the menu bar.



2. **Selecting a Piece:** Click on a piece belonging to the current player to select it. The selected piece will be highlighted.

3. **Moving a Piece:** After selecting a piece, drag it to an empty square on the board to move the piece to that location. If the move is valid (according to the rules of the game, refer to Figure 1 below), the piece will be moved. If the move is invalid, the piece will remain in its original position.

	The Point piece can only move forward, 1 or 2 steps. If it reaches the end of the board, it turns around and starts heading back the other way. It cannot skip over other pieces.
	The Hourglass piece moves in a 3x2 L shape in any orientation  (kind of like the knight in standard chess.) This is the only piece that can skip over other pieces.
	The Time piece can only move diagonally but can go any distance. It cannot skip over other pieces.
	The Plus piece can move horizontally and vertically only but can go any distance. It cannot skip over other pieces.
	The Sun piece can move only one step in any direction. The game ends when the Sun is captured by the other side.

None of the pieces are allowed to skip over other pieces.

Figure 1: Rules/Details for each game piece

4. **Ending a Turn:** Once you have made a move, release the mouse button to end your turn. The game will automatically flip the game board and change the current player after a valid move.

5. **Saving and Loading Games:** You can save the current game state to a file (save.txt) and load it later. To save a game, select the "Save Game" option from the "Settings" menu. To load a saved game, select the "Load Game" option.



#### 4) Game End Condition



The game ends when a Sun piece is captured. A Sun piece is considered captured when it is attacked by another piece. When a Sun piece is captured, a dialog box will appear announcing the winner, and a new game will start.

## 5) Game Themes



You can change the game theme by selecting one of the available themes in the "Game Theme" menu in the "Settings". The game will immediately apply the chosen theme.

## 6) Game Window Resizing



You can resize the game window by selecting the desired size in the "Window Size" menu in the "Settings". The game will immediately adjust to the new size that you have chosen.