



TCP2201 Project

Trimester 2, 2018/2019

by Eclipse

Team members:

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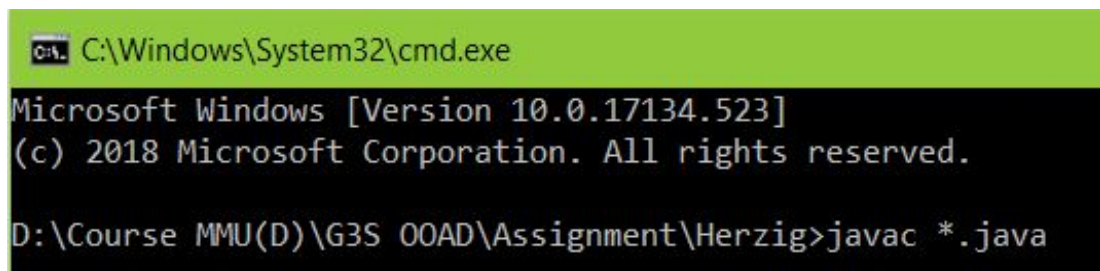
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Instructions for Running Program

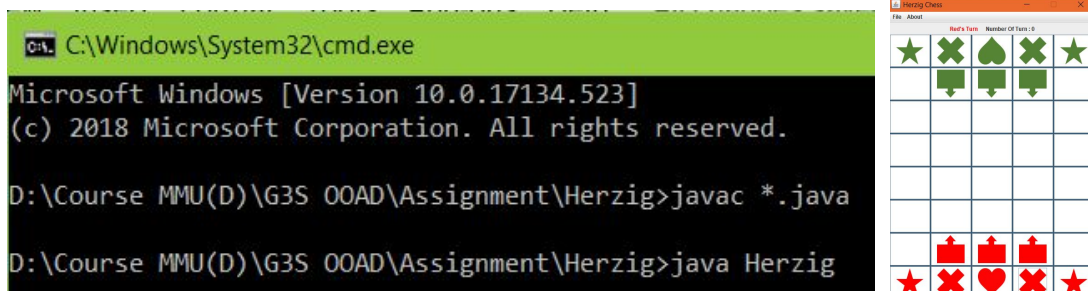
1. First of all, type `cmd` in the address bar of 'Herzig' file and enter.



2. For the compiling part, you need to type `javac *.java` in the cmd. It will compile all the java files.



3. In order to run the program, you will need to type `java Herzig` in the cmd. It will run the Herzig chess.



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4. You can click 'About' and then 'Game Rules' to know the rules and valid movements for each piece. At the same time, player's turn and number of turn are shown below the menu bar.



5. When you click 'File', there will be a list of items shown below. If you click 'New Game', it will start a new board game and the old one will be closed.



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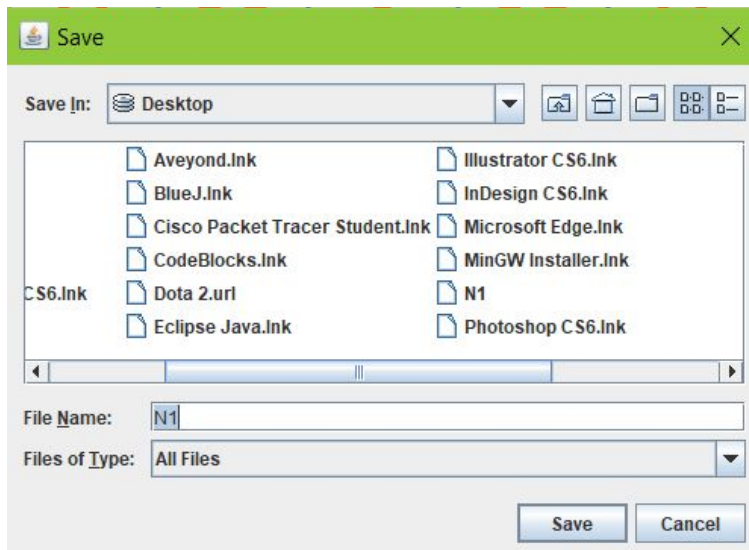
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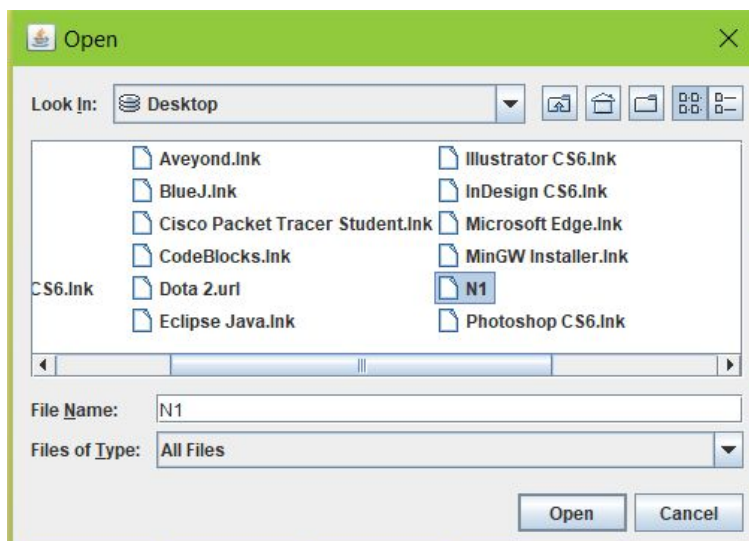
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6. If you click 'Save', you will need to give a name for it and this will save your current game in your computer.



7. In the other hand, if you click 'Load' and select the file that you have named for the saved game, it will load the saved game you have selected.



8. However, if you click 'Exit', it will close the whole game.

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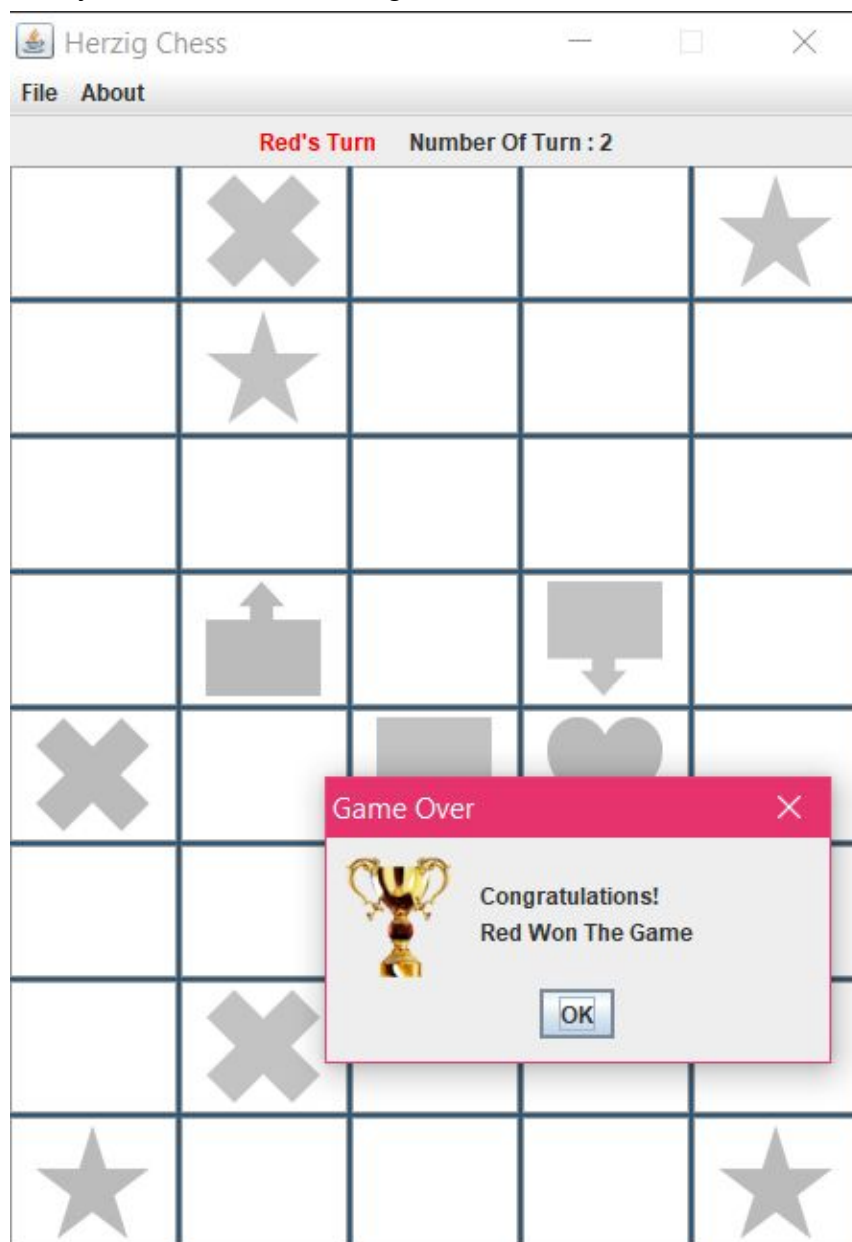
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9. The rule for winning this game is simple. The moment you killed the opponent's *Heart* by using any pieces from your own side, you are considered as the winner and no movement can be made on this board anymore. You will have to click File -> New Game in order to start a new game or you can click File -> Exit, if you want to close the game.



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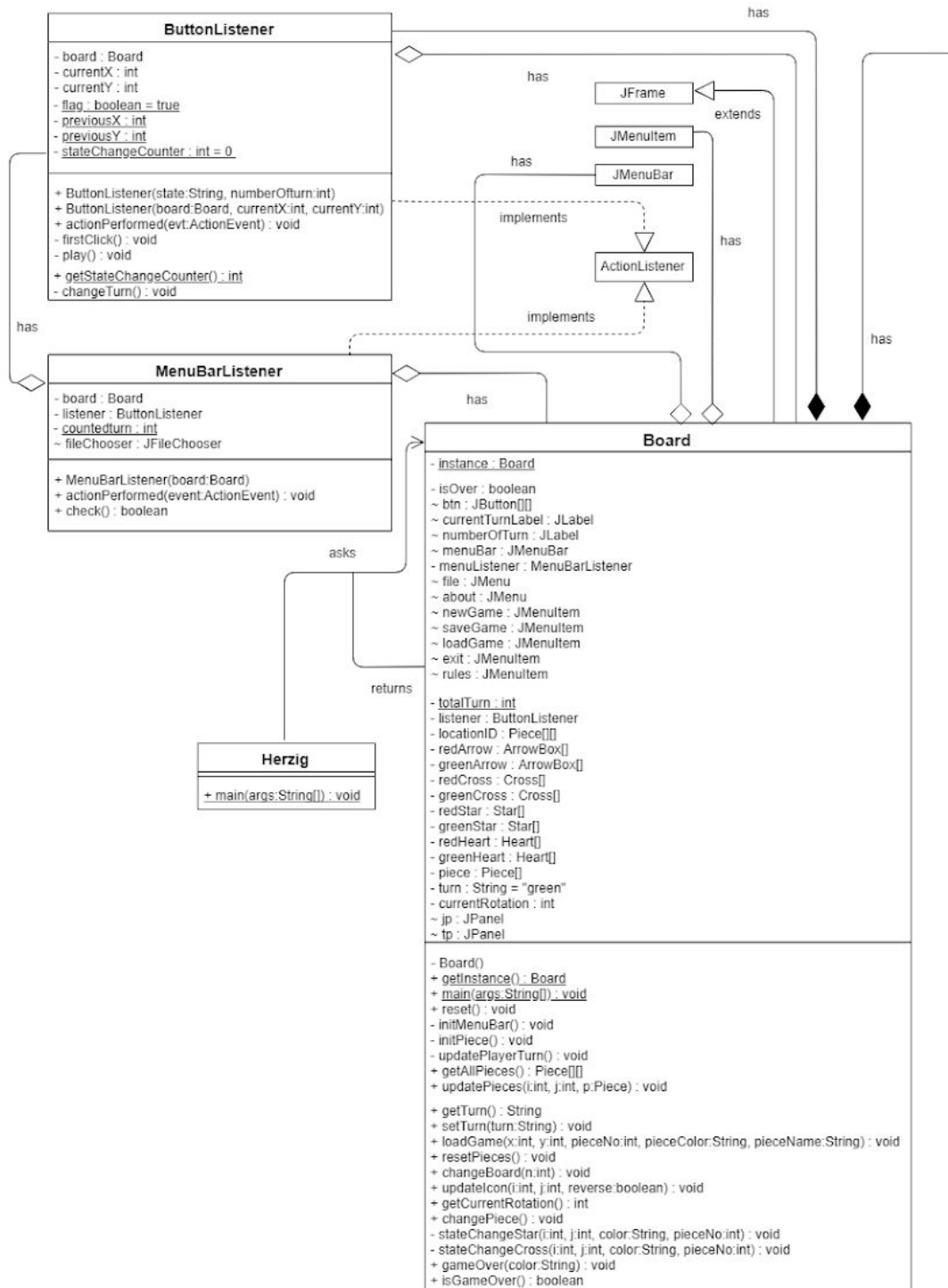
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UML Diagram



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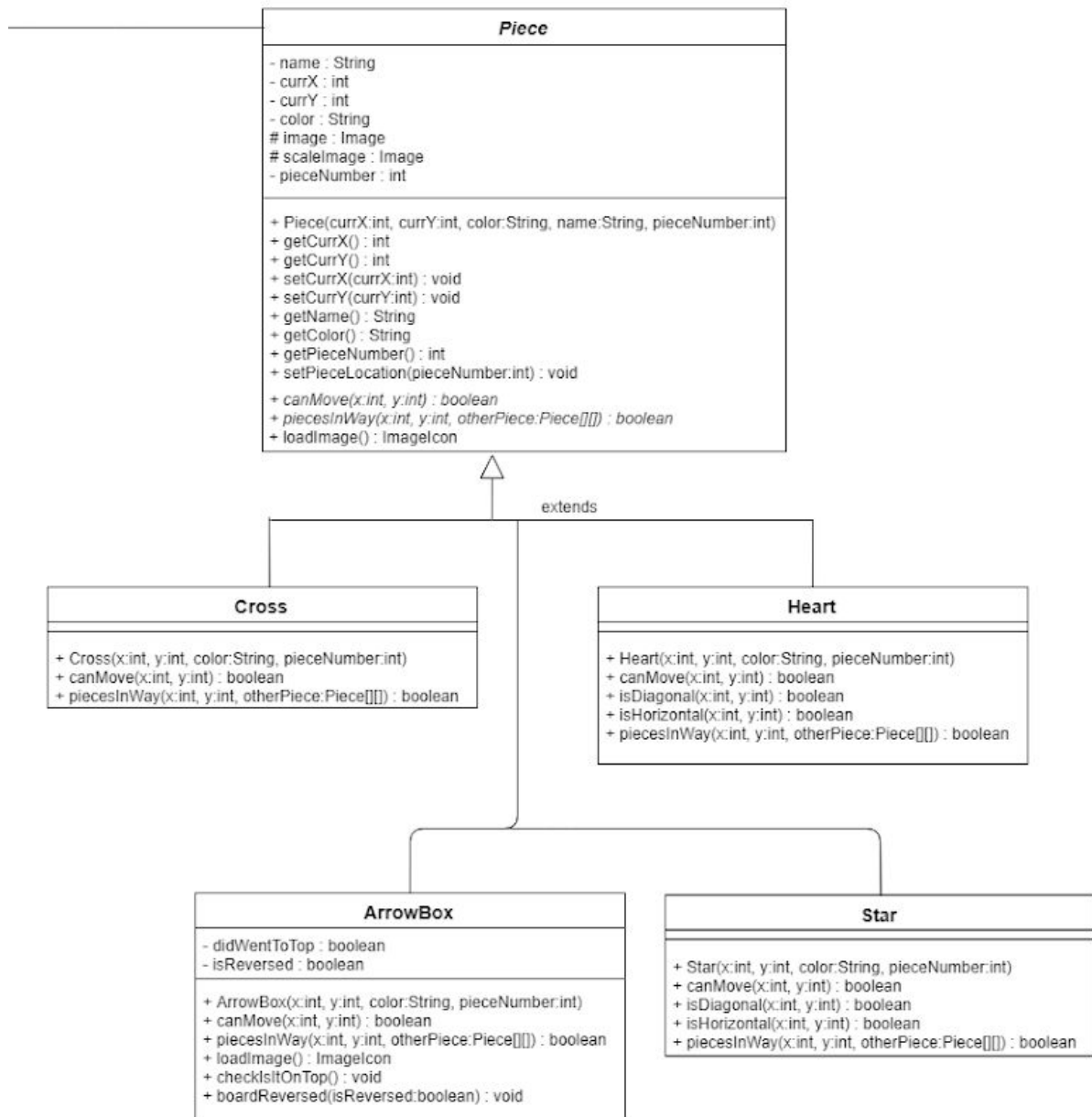
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Model-View-Controller (MVC) Design Pattern

We created an abstract *Piece* class as a model. It will manage all type of pieces in terms of their respective names, colours, locations and valid movements. *Board* class will act as view class which can place all the pieces on the board, update all the pieces' details, notify player's turn and create board interface for user to interact with. After that, *ButtonListener* class and *MenuBarListener* class are the controller classes responsible to store data of every pieces in abstract *Pieces* class and update view in *Board* class accordingly.

Singleton Design Pattern

Here we created a Single Object class which is *Board* class that has its constructor private, *Board()*, and have a static instance of itself that is *getInstance()*. This Single Object class which is *Board* class provides a static method to get its static instance to outside world and Singleton Pattern Demo which is *Herzig* class as our demo class will use Single Object class to get a object of Single Object class.

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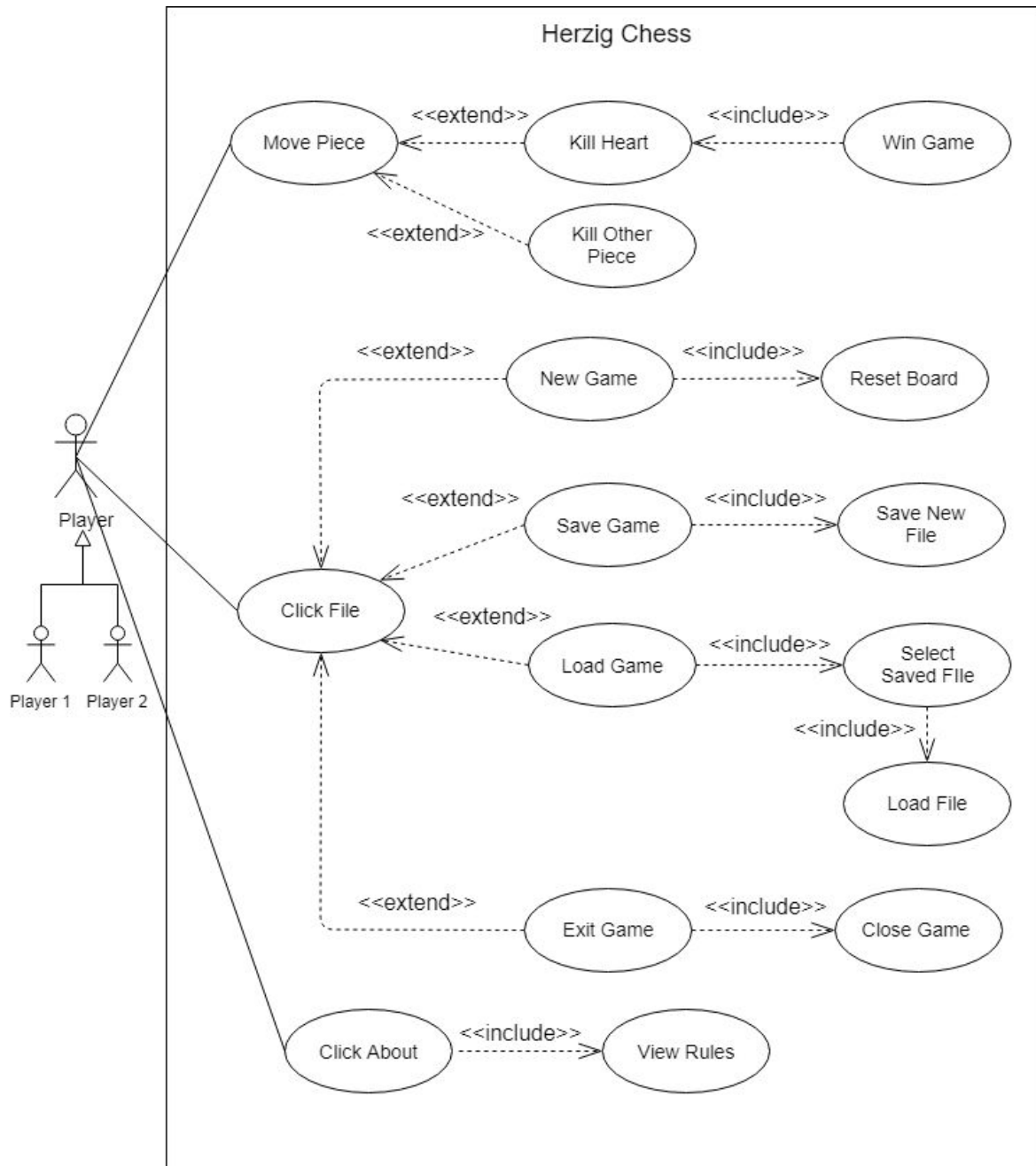
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Use Case Diagram



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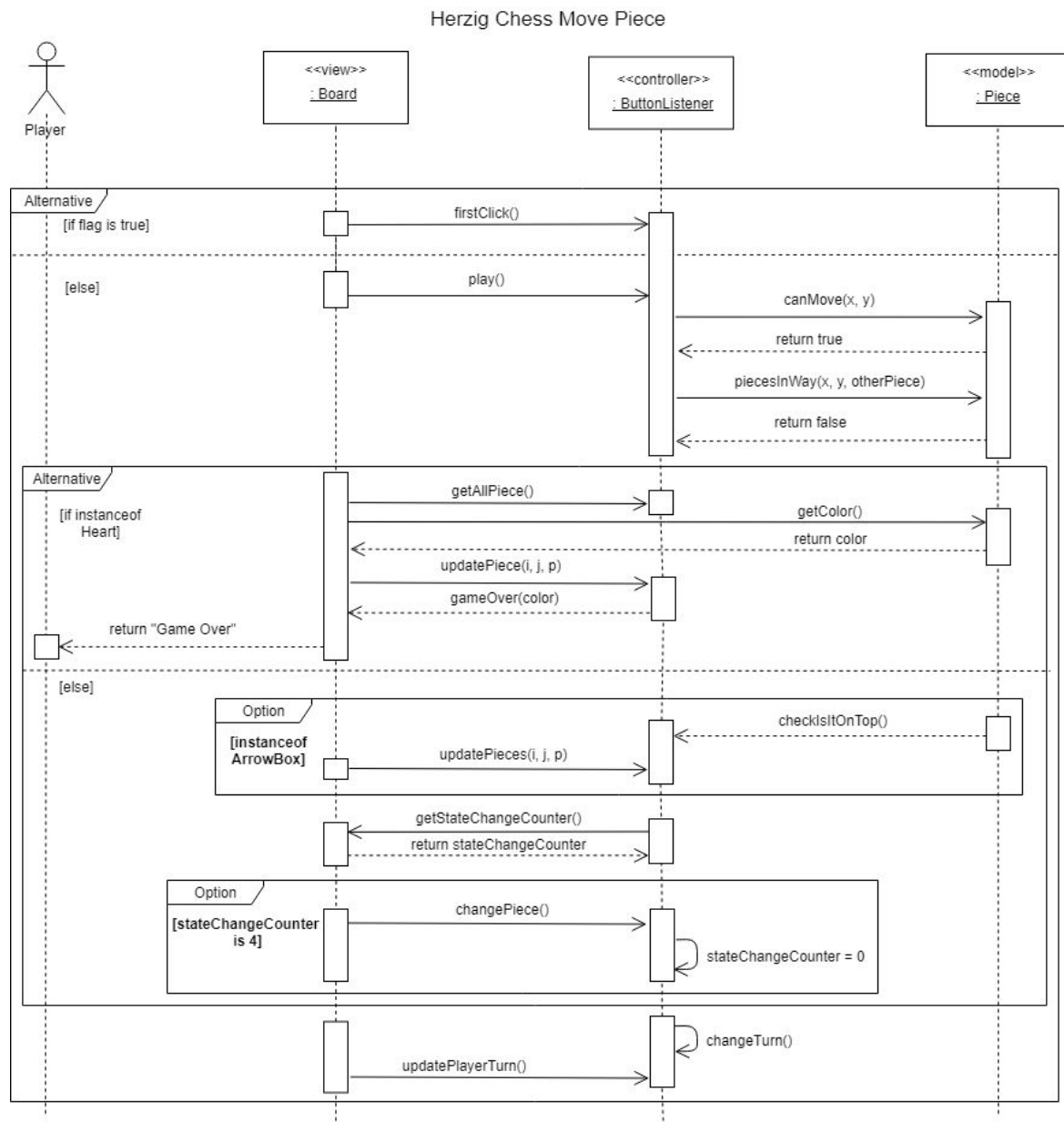
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Sequence Diagram



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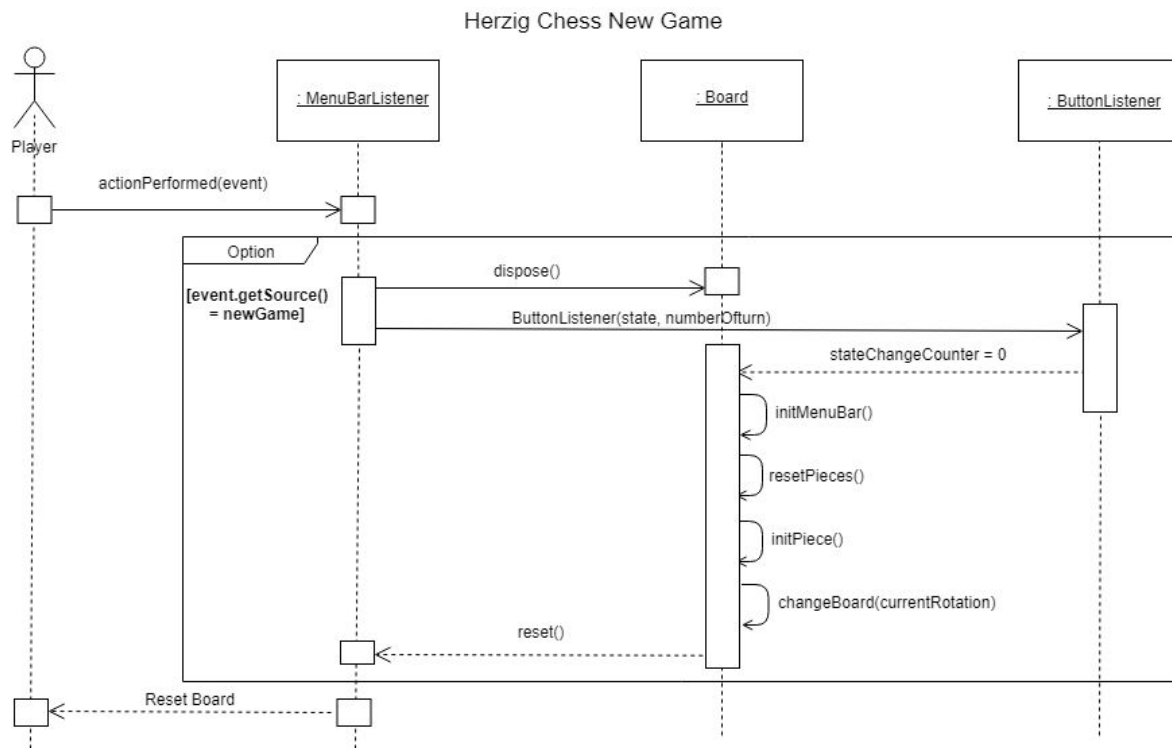
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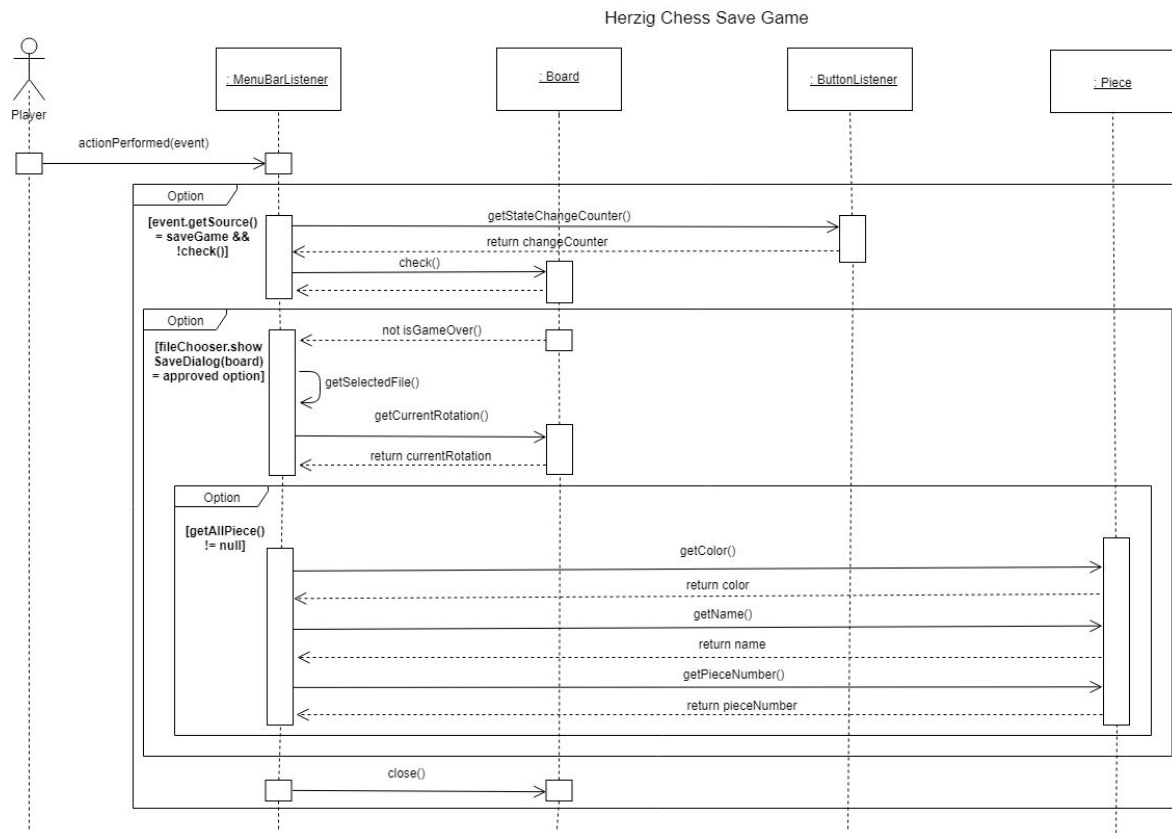
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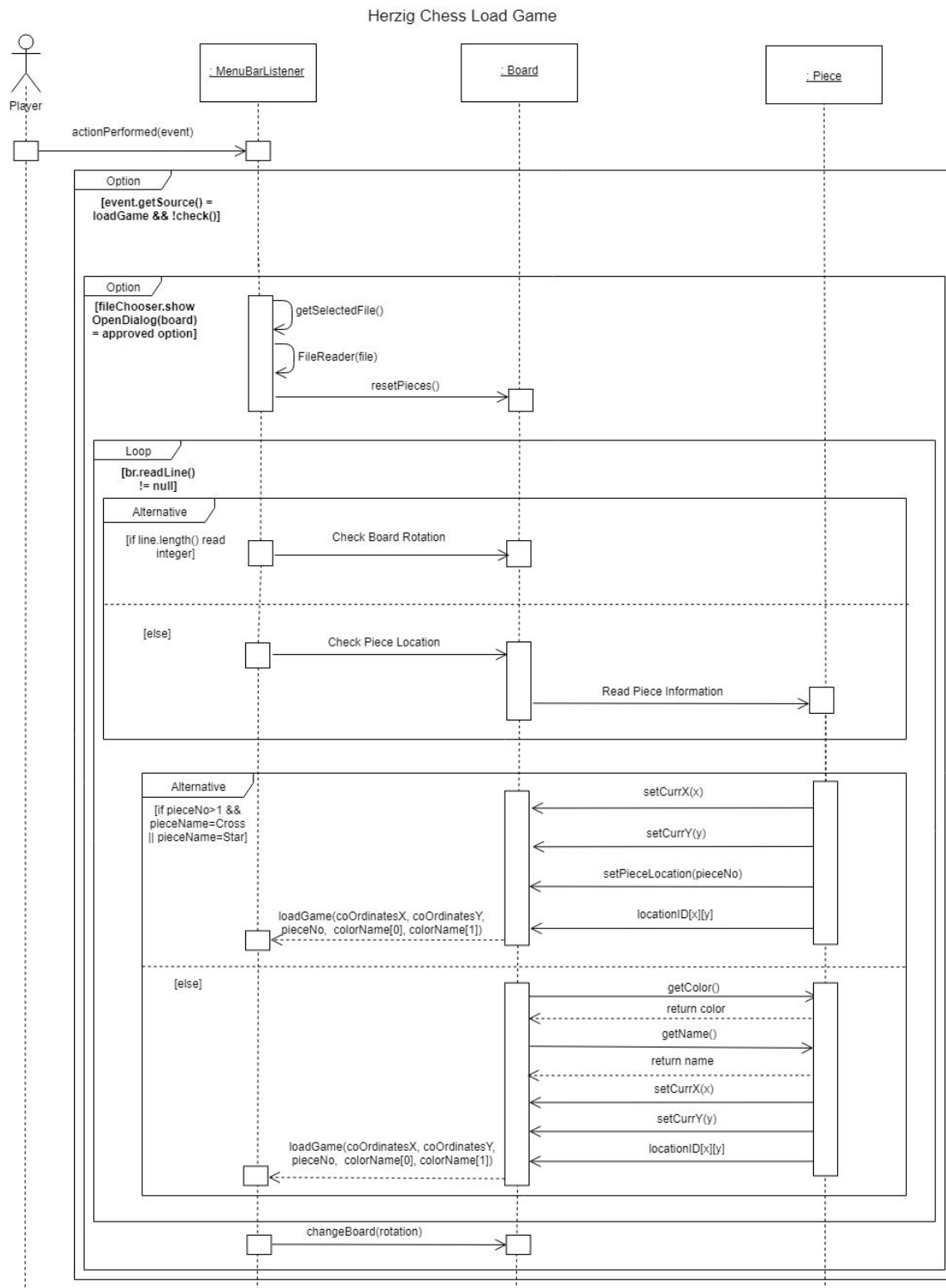
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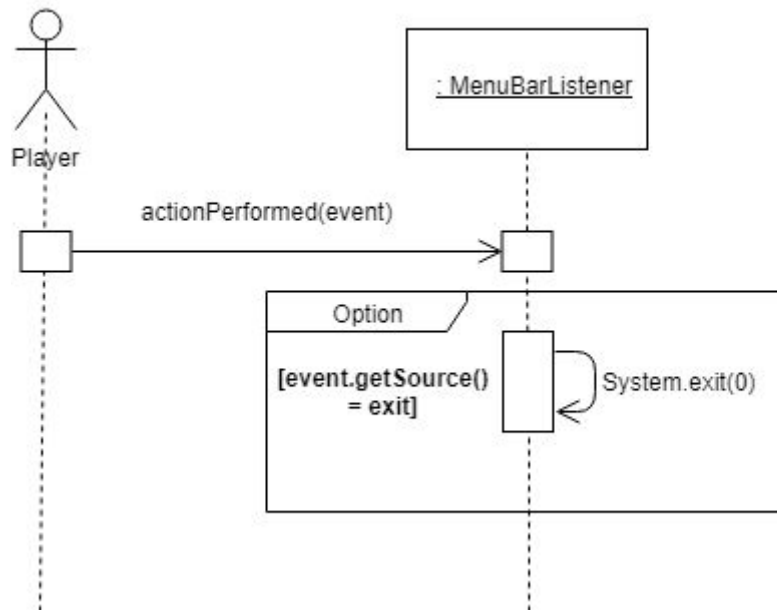
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Herzig Chess Exit Game



Herzig Chess About

