

ReadMe:

Deliverables:

- Executable jar file (containing source code and javadoc)
- Design Decisions Text File
- Updated User Manual Text File
- Read Me Text File
- *UML Class*
- *UML Sequence*

Authors:

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Known Issues:

- No AI vs AI gameplay

User Manual:

To begin playing this version of RISK, you must double click on the jar file that is provided or you can run the file in the command prompt. To run the file in the command prompt, you must:

1. Open your command prompt of choice (cmd for Windows, Terminal for Linux/Mac)
2. Find the path of the file (ex. /User/Documents/Risk/RiskGame.jar)
3. Run *java -jar "path of file"*

When you run the file, you will be greeted by a menu with three buttons. The first button, "Start", will allow you to begin a brand new game. The second button, "Load", will allow you to select a file of a previously saved game. The final and third button, "Quit", will quit you from the game.

When you begin a new game, you will be greeted by a new menu that allows you to select the number of players. You can select from 2 - 6 players. Once you select the number of players, you will get another menu that lets you type the names of each player that will be playing as well as being able to select if you would like the player to be an AI. Once all of this is completed, you will be able to finally play the game.

When the game begins, you will see a new menu. This menu has information like the current players troops, number of countries owned, number of entire continents owned as well as amount of bonus troops gained per round. Under that, there are 5 buttons that each allow for different actions:

- Reinforce: This action must be done at the beginning of the current player's turn. At the beginning of each turn, you will get a calculated number of troops that you can add to any country that you own. When you click this button, a menu will pop up with a list of the countries that you own. You will then select the country that you would like to reinforce. Under that list, there is a drop down menu that allows you to select the number

of troops that you would like to add to the selected country. Once you have finished adding troops to the selected countries, you will be able to press three other buttons.

- Attack: This button allows you to attack an adjacent opposing country with a country that you own. When you click this button, a menu will popup with two lists. The first list contains the list of countries that you own and the second list is a list of countries that is attackable from the selected country from the first list. You will then click the "Battle" button to proceed to the next menu. Once this occurs, you will then see a new menu that shows which player is attacking and which player is defending. Under that, each player must select the number of dice that they would like to use to attack or defend. Once you have finished this, the final attack menu will appear and you will see all of the information on for the attack. It displays who's attacking/defending, with which country they are attacking ,how many troops they have as well as the number of dice being used. In the middle of the screen, once you have clicked the roll button, the results of the battle will be displayed. Once the battle is over, you will exit the battle and be returned to the main menu.
- Fortify: This button allows you to fortify your countries and move a number of troops from one country to another so long as the first country has 1 troop remaining. You can only fortify once and this will be your entire turn. When the button to fortify is pressed, it opens a menu with the list of countries that you own. Once you select one of those countries, the second list will populate and you will see which of the adjacent countries that you own that you can fortify. Once both of these are selected, click on the move troops button to proceed to the next menu. This menu allows you to choose how many troops you would like to move from the country selected in the first list to the country selected from the second list. Once you have selected the number of troops and submitted this, you will be returned to the main menu.
- End Turn: This button ends your turn and will prompt the next player that it is their turn.
- Do AI Turn: If the current player is an AI, you must click this button and it will do the actions for the AI. This will reinforce the AI's countries, attack a random country and fortify a randomly owned country.

Once a player has lost all of their countries, they will no longer have a turn and be eliminated from the game. Once a player has won the game, a popup message will appear announcing the winner and the game will then close.

Design Decisions:

Changes Made From Milestone 2 and 3:

The major changes made was the addition of an AI player, the ability to load custom maps as well as the ability to save and load a game. To do the AI player, we did not make it a very smart AI. The AI will make its selections randomly like randomly choose which country it is attacking from and which country it is attacking. It will also randomly choose which country that it would like to fortify or reinforce and the number of troops it would like to add. To do the save, we used output streams to save the model. To load the game, we used a file chooser to select if we are loading a custom map or a previously saved map. These are done through filtering between

serialized files and json files. Depending on the type, it will be the custom map or previously saved game.