Introduction

The assignment requires the implementation of a JavaFX application that randomly selects and displays four images from a deck of 52 playing cards. The application includes a refresh button that allows users to generate a new set of random cards. The code adheres to best practices in Java programming, including the use of descriptive variable names, comments, and proper formatting.

**Header Comments**: The file's top includes comments that specify the author, date, assignment name, and purpose of the code. This is essential for maintaining clarity and adhering to academic integrity.

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**Imports**: The necessary JavaFX classes are imported to facilitate the creation of the graphical user interface (GUI).

A screen shot of a computer program

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**Constants**: The IMAGE\_PATH constant defines the directory where the card images are stored, and TOTAL\_CARDS indicates the total number of cards in the deck.



**main Method**: The main method serves as the entry point of the application, invoking the launch method to start the JavaFX application lifecycle.

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**loadRandomCards Method**: This method loads four random card images. It creates a list of card indices, shuffles them, and then loads the images corresponding to the first four indices into the ImageView objects.

A computer screen shot of code

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**Lambda Expression**: The refresh button's action is defined using a lambda expression, which simplifies the code and enhances readability. When the button is clicked, it triggers the loadRandomCards method to display a new set of cards.

In conclusion, this JavaFX application effectively demonstrates the use of randomization, GUI components, and modern Java programming practices, including lambda expressions and proper code documentation.

A close up of a card

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