

In this project, I have developed a console-based application in Java called MySavings for savings. This program simulates a piggy bank through which the user is able to add coins, withdraw cash, and save or load the status of the piggy bank from or to a file.

#### Key Concepts Learned:

##### File Handling:

I have used `ObjectOutputStream` and `ObjectInputStream` to save and load data of the piggy bank. This will enable the program to save and reload the state of the piggy bank between sessions.

##### Formatting Output:

I used `DecimalFormat` to display the currency amount with commas and two decimal places. That made the program more user-friendly since the total balance in the piggy bank became much easier to read.

##### User Input & Control Flow:

The program runs in circles, using a `while` until user wants to quit. Further, several actions-add coin, withdraw money-are handled through the structure switch, making sure that each one of your inputs will be processed accordingly.

##### Challenges:

**Input Validation:** Careful handling of user input was a bit tricky in order not to get errors like invalid choice or wrong format of data input. I used a loop for prompting the user until a valid option is chosen.

**Serialization Issues:** One had to be very care-ful about the exceptions which might pop up while saving and loading the data of the piggy bank.

##### Conclusion:

This program really does imitate a piggy bank, and it also includes some very basic features like adding coins, withdrawing money, saving, and loading data. The use of object serialization, formatted output, and error handling made the program robust and user-friendly. This project helped me solidify my understanding of file handling, formatting numbers, and creating interactive applications in Java.