

Credit Name: Computer Science 3
Assignment Name: Local Bank

Describe the errors you've encountered while working on this assignment. What caused the error and how do you overcome the error?

Error 1: Missing Account Number Input

Error: The program allowed transactions without checking if the account number field was empty, which caused issues during operations like deposit and withdrawal.

Cause: The validation for an empty account number was missing before proceeding with the transaction.

Solution: I added a validation to ensure that the account number is provided for all actions except for "Add Account."

```
if (accountNumber.isEmpty() && !action.equals("Add Account")) {  
    JOptionPane.showMessageDialog(this, "Please enter an Account Number.", "Error",  
JOptionPane.ERROR_MESSAGE);  
    return;  
}
```

Error 2: Invalid Amount Input

Error: When users entered non-numeric values in the amount field during deposit or withdrawal, the program crashed due to improper data handling.

Cause: The amount input was not validated properly, and non-numeric values led to `NumberFormatException`.

Solution: I added a validation step to check if the amount entered is numeric and prompt an error message if it's invalid.

```
private double getAmount(String amountText) {  
    try {  
        return Double.parseDouble(amountText);  
    } catch (NumberFormatException ex) {  
        JOptionPane.showMessageDialog(this, "Invalid amount. Please enter a valid number.",  
"Error", JOptionPane.ERROR_MESSAGE);  
        return -1;  
    }  
}
```

