

## Basic ATM Simulator in Python

Excited to share my latest project: a **Basic ATM Simulator**, which demonstrates core programming skills by simulating the essential functions of an ATM. This project is a practical application of Python basics and showcases user interaction, data validation, and error handling.

### Project Description

This project simulates an ATM, providing users with the ability to:

1. Check their account balance.
2. Deposit funds after input validation.
3. Withdraw money with sufficient funds.
4. Exit the system gracefully.

The program is interactive and uses Python fundamentals to mimic real-world ATM functionality. It ensures input validation and error handling to provide a seamless user experience.

### Key Features


- **Check Balance:** Displays the current balance.
- **Deposit Money:** Updates the balance after validating the deposit amount.
- **Withdraw Money:** Ensures sufficient funds and updates the balance post-withdrawal.
- **Error Handling:** Handles invalid inputs gracefully using `try-except` blocks.

### Techniques Used

- **Loops:** For continuous interaction until the user chooses to exit.
- **Conditional Statements:** To process user choices and validate transactions.
- **Input Validation:** Ensures positive amounts and sufficient funds for transactions.
- **Error Handling:** Prevents crashes with invalid inputs.

### What I Learned

- Translating real-world scenarios into Python code.
- Validating inputs for logical accuracy and user safety.
- Designing a user-friendly and interactive system.

 I'd love to hear your feedback, suggestions, or thoughts about this project. Let's connect and discuss how such projects can be taken to the next level! 😊

## Python Code

```
balance = 1000 # Initial Balance
print("Welcome to XYZ ATM")
while True: # ATM Interface Loop
    print("\nMain Menu")
    print("1. Check Balance")
    print("2. Deposit Money")
    print("3. Withdraw Money")
    print("4. Exit")
    try:
        choice = int(input("Choose an Option from 1 to 4: "))
        if choice == 1:
            print("Your Current Balance is ", balance)
        elif choice == 2:
            deposit = float(input("Enter the Amount to deposit: "))
            if deposit > 0:
                balance = balance + deposit
                print("Your Balance after deposit is ", balance)
            else:
                print("Invalid amount, Please enter a positive amount.")
        elif choice == 3:
            withdraw = float(input("Enter the Amount to withdraw: "))
            if 0 < withdraw <= balance:
                balance = balance - withdraw
                print("Your Balance after withdrawal is ", balance)
            elif withdraw > balance:
                print("Insufficient funds.")
            else:
                print("Invalid amount, Enter a Positive Amount.")
        elif choice == 4:
            print("Thank you for Using the ATM, GOOD BYE!")
            break
        else:
            print("Choose an option between 1 to 4.")
    except ValueError:
        print("Invalid Input, Please enter a Number Between 1 to 4.")
```