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import getpass
# Function to display the main menu
def display_main_menu():
   print("Main Menu:")
   print("1. Check balance")
   print("2. Withdraw money")
   print("3. Deposit money")
   print("4. Change PIN")
   print("5. Exit")
# Welcome screen
print("Welcome to the ATM Simulator!")
print("1. Setup and Use ATM")
choice = input("Enter your choice: ")
if choice == "1":
    # Player sets up the current balance
    opening_balance = float(input("Enter your current balance: "))
    pin = getpass.getpass("Set your PIN (4 digits): ")
    while len(pin) != 4 or not pin.isdigit():
       print("Invalid PIN! Please enter a 4-digit numeric PIN.")
        pin = getpass.getpass("Set your PIN (4 digits): ")
    # User interaction phase
    attempts = 3
    while attempts > 0:
        entered_pin = getpass.getpass("Enter your PIN: ")
        if entered_pin == pin:
            # Main menu
            while True:
               display main menu()
               option = input("Enter your choice: ")
                if option == "1":
                   print("Current balance:", opening_balance)
                elif option == "2":
                   print("Withdrawal Menu:")
                   print("1. £10")
                   print("2. £20")
                    print("3. £40")
                   print("4. £60")
                    print("5. £80")
                    print("6. £100")
                   print("7. Other Amount")
                    print("8. Return to Main Menu")
                    withdrawal_option = input("Enter your choice: ")
                    if withdrawal_option == "7":
                        custom_amount = float(input("Enter custom amount (in £10 increments): "))
                        if custom amount % 10 == 0: # Check if the amount is a multiple of £10
                            withdrawal_amount = custom_amount
                            print("Withdrawal amount must be a multiple of £10.")
                            continue # Return to the Withdrawal Menu
                    elif withdrawal_option == "8":
                        continue # Return to the Main Menu
                        withdrawal_amount = [10, 20, 40, 60, 80, 100][int(withdrawal_option) - 1]
                    if withdrawal_amount <= opening_balance:</pre>
                        opening_balance -= withdrawal_amount
                        print("Withdrawal successful. Current balance:", opening_balance)
                    else:
                        print("Insufficient funds for this transaction!")
                elif option == "3":
                    print("Deposit Menu:")
                    print("1. Deposit money")
                    print("2. Return to Main Menu")
                    print("3. Return ATM card")
                    deposit_option = input("Enter your choice: ")
                    if deposit_option == "1":
                        amount = float(input("Enter amount to deposit: "))
                        opening_balance += amount
                        print("Deposit successful. Current balance:", opening_balance)
                    elif deposit_option == "2":
                        continue # Return to the Main Menu
                    elif deposit_option == "3":
                        print("ATM card returned.")
                        break # Exit the program
                    else:
                        print("Invalid option! Please try again.")
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elif option == "4":
                   new_pin = getpass.getpass("Enter new PIN (4 digits): ")
                   while len(new_pin) != 4 or not new_pin.isdigit():
                        print("Invalid PIN! Please enter a 4-digit numeric PIN.")
                       new_pin = getpass.getpass("Enter new PIN (4 digits): ")
                   pin = new_pin
                   print("PIN changed successfully!")
               elif option == "5":
                    print("Goodbye! Thank you for using the ATM Simulator.")
                   break # Exit the program
               else:
                   print("Invalid option! Please try again.")
           break
       else:
           attempts -= 1
           if attempts > 0:
               print(f"Incorrect PIN. {attempts} attempts remaining.")
           else:
               print("You have exhausted your attempts. Please contact your bank.")
   print("Invalid choice!")
\Longrightarrow Welcome to the ATM Simulator!
    1. Setup and Use ATM \,
    Enter your choice: 1
    Enter your current balance: 1000
    Set your PIN (4 digits): ······
    Enter your PIN: .....
    Main Menu:
    1. Check balance
    2. Withdraw money
    3. Deposit money
    4. Change PIN
    5. Exit
    Enter your choice: 1
    Current balance: 1000.0
    Main Menu:
    1. Check balance
    2. Withdraw money
    3. Deposit money
    4. Change PIN
    5. Exit
    Enter your choice: 3
    Deposit Menu:
    1. Deposit money
    2. Return to Main Menu
    3. Return ATM card
    Enter your choice: 1
    Enter amount to deposit: 500
    Deposit successful. Current balance: 1500.0
    Main Menu:
    1. Check balance

    Withdraw money
    Deposit money

    4. Change PIN
    5. Exit
    Enter your choice: 1
    Current balance: 1500.0
    Main Menu:
    1. Check balance
    2. Withdraw money
    3. Deposit money
    4. Change PIN
    5. Exit
    Enter your choice: 5
    Goodbye! Thank you for using the ATM Simulator.
```