```python
def main():
    username = input("Please enter a user ID? ")
    password = input("Please enter a password? ")
    login(username, password)
    menu()


#5 tries, redo if incorrect
def login(username, password):
    user_username = input("Username: ")
    user_password = input("Password: ")
    counter = 1
    while user_username != username or user_password != password:
        if counter > 5:
            print("You have run out of attempts. Goodbye!")
            exit()
        print('Password or Username is incorrect! You have #' + str(6 - counter)
+ ' more attempts')
        user_username = input("Username: ")
        user_password = input("Password: ")
        counter = counter + 1


#menu option
def menu():
    p_balance = 1000
    print(" 1 = balance")
    print(" 2 = withdraw")
    print(" 3 = deposit")
    print(" 4 = cancel")
    user_input = 0
    user_input = int(input("Enter the number for your desired page ?"))
    if user_input == 1:
        p__balance = balance(p_balance)
    if user_input == 2:
        p_balance = withdraw(p_balance)
    if user_input == 3:
        p_balance = deposit(p_balance)
    if user_input == 4:
        cancel()


def balance(p_balance):
    print("Your current balance : " + "$" + str(p_balance))
    u_input = int(input("To return to menu enter 1 : "))
    while u_input == 1:
        menu()
    print("Transaction Completed")
    return p_balance


#cannot go below 1$
def withdraw(p_balance):
```

```python
        withdrawal = int(input("Your current balance is : " + "$" + str(p_balance) +
"." + " How much would you like to withdraw ?"))
    while withdrawal <= p_balance - 1:
        p_balance = p_balance - withdrawal
        print("New balance : " + "$" + str(p_balance))
        z_input = int(input("To return to menu enter 1 : "))
        while z_input == 1:
            menu()
        print("Transaction Completed")
        return p_balance
    print("Please withdraw a smaller amount!. You must have at least $1 at all
times.")
    max = p_balance - 1
    print("The maximum amount you can withdraw is : " + str(max))
    withdrawal = int(input("How much would you like to withdraw now ? "))
    p_balance = p_balance - withdrawal
    print("New balance : " + "$" + str(p_balance))
    z_input = int(input("To return to menu enter 1 : "))
    while z_input == 1:
        menu()
    print("Transaction Completed")
    return p_balance



def deposit(p_balance):
    deposit = int(input("Your current balance is : " + "$" + str(p_balance) +
"." + " How much would you like to deposit ?"))
    p_balance = p_balance + deposit
    print("New balance : " + "$" + str(p_balance))
    y_input = int(input("To return to menu enter 1 : "))
    while y_input == 1:
        menu()
    print("Transaction Completed")
    return p_balance

def cancel():
    print("Thank you for using our service!")
    exit()

if __name__ == "__main__":
    main()




"""
OUTPUT
a)Please enter a user ID? mehmood
```

Please enter a password? mehmood

Username: mehmood

Password: mehmood
1 = balance
2 = withdraw
3 = deposit
4 = cancel

Enter the number for your desired page ?

b) Your current balance is : $1000. How much would you like to withdraw ?1000
Please withdraw a smaller amount!. You must have at least $1 at all times.
The maximum amount you can withdraw is : 999

How much would you like to withdraw now ? 999
New balance : $1

c)Please enter a user ID? mehmood

Please enter a password? mehmood

Username: m

Password: m
Password or Username is incorrect! You have #5 more attempts

Username: m

Password: m
Password or Username is incorrect! You have #4 more attempts

Username: m

Password: m
Password or Username is incorrect! You have #3 more attempts

Username: m

Password: m
Password or Username is incorrect! You have #2 more attempts

Username: m

Password: m
Password or Username is incorrect! You have #1 more attempts

```
Username: m

Password: m
You have run out of attempts. Goodbye!



d) Please enter a user ID? mehmood

Please enter a password? mehmood

Username: mehmood

Password: mehmood
1 = balance
2 = withdraw
3 = deposit
4 = cancel

Enter the number for your desired page ?2

Your current balance is : $1000. How much would you like to withdraw ?1000
Please withdraw a smaller amount!. You must have at least $1 at all times.
The maximum amount you can withdraw is : 999

How much would you like to withdraw now ? 999
New balance : $1

To return to menu enter 1 : 1
1 = balance
2 = withdraw
3 = deposit
4 = cancel

Enter the number for your desired page ?4
Thank you for using our service!

"""
```