Question1

Create a program that will add books to a virtual bookshelf.

- This will continue to ask a user to enter a title and author for books
- Once done asking for the information, it will then display all the information from the books on the bookshelf

```
class Book:
    def __init__(self, title, author):
        self.title = title
        self.author = author

bookshelf = []

while True:
    title = input("Enter the title (or 'q' to quit): ")
    if title.lower() == 'q':
        break
    author = input("Enter the author (or 'q' to quit): ")
    if author.lower() == 'q':
        break

    book = Book(title, author)
    bookshelf.append(book)

print("\nBooks on the bookshelf:")
for book in bookshelf:
    print(f"Title: {book.title}, Author: {book.author}")
```

```
Enter the title (or 'q' to quit): book1
Enter the author (or 'q' to quit): Author book1
Enter the title (or 'q' to quit): q

Books on the bookshelf:
Title: book1, Author: Author book1
```

```
class Book:
    def __init__(self, title, author):
        self.title = title
        self.author = author

    def printdetails(self):
        print(f'Book title {self.title}, Author {self.author}')


bookshelf = []

while True:
    title = input("Enter the title (or 'q' to quit): ")
    if title.lower() == 'q':
        break
    author = input("Enter the author (or 'q' to quit): ")
    if author.lower() == 'q':
        break

    book = Book(title, author)
    bookshelf.append(book)

print("\nBooks on the bookshelf:")
for book in bookshelf:
    book.printdetails()
```

```
Enter the title (or 'q' to quit): Book1
Enter the author (or 'q' to quit): author1
Enter the title (or 'q' to quit): q

Books on the bookshelf:
Book title Book1 , Author author1
```

Double-click (or enter) to edit

Create a bank application.

- It will have a bank object that has an account owner and an initial balance
- It will have a way to add (deposit) to the balance

- It will have a way to remove (withdraw) from the balance
- Don't let it withdraw more money than you have
- It should have a way to display the current balance
- Your program should create the account for the person

```
class BankAccount:
    def __init__(self, acc_num,acc_owner, int_bal=0):
        self.acc_num = acc_num
        self.acc_owner = acc_owner
        self.bal = int_bal

    def deposit(self, amt):
        if amt > 0:
            self.bal += amt

            print(f"Hi {acc_owner} you deposited ${amt} to account {self.acc_num} and the new balance: ${self.bal}")
        else:
            print(f"Hi {acc_owner} you entered invalid depoist ammount.")
        return

    def withdraw(self, amt):
        if amt > 0 and amt <= self.bal:
            self.bal-= amt
            print(f"Hi {acc_owner}  you withdrew ${amt}. New balance: ${self.bal}")
        elif amt > self.bal:
            print(f"Hi {acc_owner} your account {self.acc_num} have insufficient funds.")
        else:
            print(f"Hi {acc_owner} you entered invalid withdrawal amount.")
        return

    def display_balance(self):
        print( f"Hi {acc_owner} your current balance for {self.acc_num}: ${self.bal}")
        return



while True:
    print("\nBank Account Menu:")
    print("1. Create Account")
    print("2. Deposit")
    print("3. Withdraw")
    print("4. Display Balance")
    print("5. Exit")

    choice = input("Enter your choice (1/2/3/4): ")

    if choice == "1":
      # Create a new account
        acc_owner = input("Enter your Name: ")
        acc_num= input("Enter Account Number: ")
        account = BankAccount(acc_num,acc_owner)
    elif choice == "2":
        deposit = float(input("Enter the deposit amount: "))
        account.deposit(deposit)
    elif choice == "3":
        withdraw = float(input("Enter the withdrawal amount: "))
        account.withdraw(withdraw)
    elif choice == "4":
        account.display_balance()
    elif choice == "5":
        print("Thank you for using the bank application. Goodbye!")
        break
    else:
        print("Invalid choice. Please select a valid option.")
```

```
Bank Account Menu:
1. Create Account
2. Deposit
3. Withdraw
4. Display Balance
5. Exit
```