Python Assignment

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SCSJ2500448

PART A

```python
#Mohammad Amin
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def user_profile():
    print("\n==Please enter your details==")
    name = input("Your name? : ")
    age = int(input("Your age? : "))
    membership_type = input("Enter your membership type : ")

    if age < 12:
        print("Not eligible for membership")
    elif 12 <= age <= 60:
        print("Standard Membership Granted")
    else:
        print("Senior membership granted")

def booking_session():
    print("\n==Enter your booking time==")
    time = int(input("Your time? : "))
    session = input("Your session : ") #use alphabets A,B,C etc...

    print(f"You have booked session {session} successfully!")

def main_menu():
    while True:
        print("\n=== Main Menu ===")
        print("1. User Profile")
        print("2. Booking Session")
        print("3. Exit System")
        print("=================")
        try:
            choice = int(input("Enter your choice: "))
```

Figure 1 Pool management system

```python
            choice = int(input("Enter your choice: "))
        except ValueError:
            print("Invalid input. Please enter a number.")
            continue

        if choice == 1:
            user_profile()
        elif choice == 2:
            booking_session()
        elif choice == 3:
            print("Exiting the system.")
            break
        else:
            print("Invalid choice. Please select 1, 2, or 3.")

if __name__ == "__main__":
    main_menu()
```

Figure 2 Pool management system

```
PS C:\Users\Student\Downloads\Assesment> & "C:/Program Files (x
nloads/Assesment/pool.py

=== Main Menu ===
1. User Profile
2. Booking Session
3. Exit System
=================
Enter your choice: 1

==Please enter your details==
Your name? : Amin
Your age? : 12
Enter your membership type : Junior
Standard Membership Granted
```

Figure 3 User's profile info

```
=== Main Menu ===
1. User Profile
2. Booking Session
3. Exit System
=================
Enter your choice: 2

==Enter your booking time==
Your time? : 12
Your session : C
You have booked session C successfully!
```

Figure 4 Booking session and its time

```
=== Main Menu ===
1. User Profile
2. Booking Session
3. Exit System
=================
Enter your choice: 3
Exiting the system.
PS C:\Users\Student\Downloads\Assesment>
```

Figure 5 exiting the program

PART B

Case Study – Segi College Management System

Task 1: Error

In library_module.py

Print (f"Title: {self.title}, Author: {self.author}")

```
print (f"Title: {self.title}, Author: {self.author})
```

Figure 6 1st error

In main.py

B = book (t, a)

```
22      b = book (t, a)
```

Figure 7 2nd error

Task 2: Explanation

The first error, the code will cause the program to fail because it doesn't have the "self" beside display_info

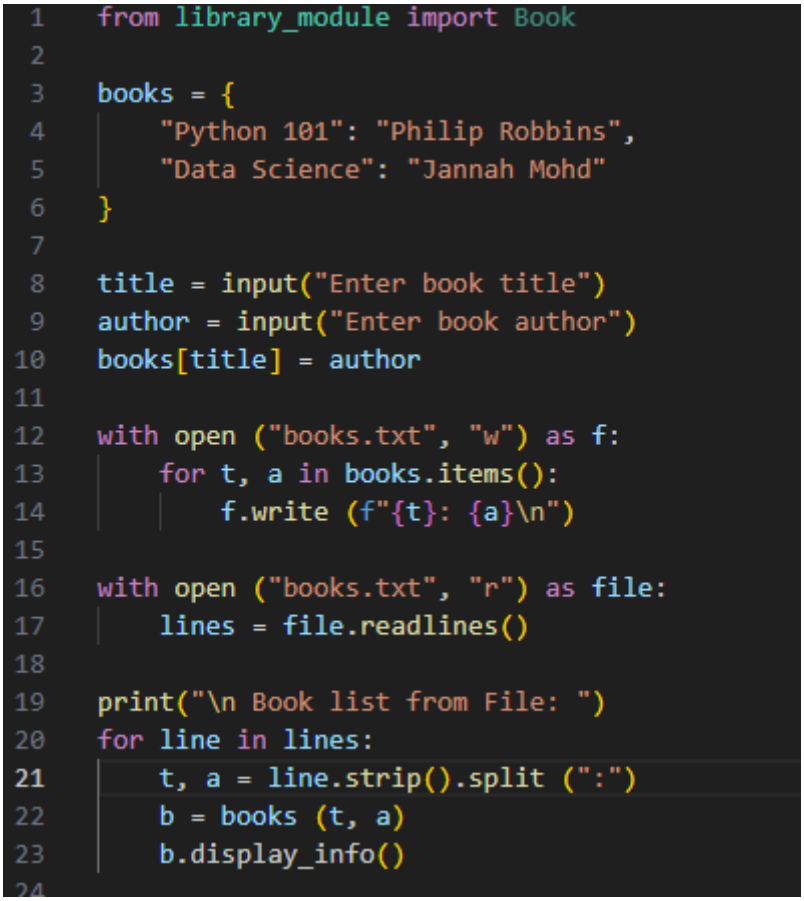
The second error, it will cause the program to fail because its using "book" and not "books". Books is already define in the code while book isn't.

Task 3:

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

    def display_info(self):
        print(f"Title: {self.title}, Author: {self.author}")
```

Figure 8 1st error fix



```python
from library_module import Book

books = {
    "Python 101": "Philip Robbins",
    "Data Science": "Jannah Mohd"
}

title = input("Enter book title")
author = input("Enter book author")
books[title] = author

with open ("books.txt", "w") as f:
    for t, a in books.items():
        f.write (f"{t}: {a}\n")

with open ("books.txt", "r") as file:
    lines = file.readlines()

print("\n Book list from File: ")
for line in lines:
    t, a = line.strip().split (":")
    b = books (t, a)
    b.display_info()
```

Figure 9 2nd error fix

Task 4;

One advantage separating the class into a different module file is allows the code/programmer to manage their code more easily