FINAL ASSESSMENT

GAN HAO THEAN SCSJ2400533

PRG4064 INTRODUCTION TO PYTHON PROGRAMMING
Diploma in Information Technology

Lab 7.1

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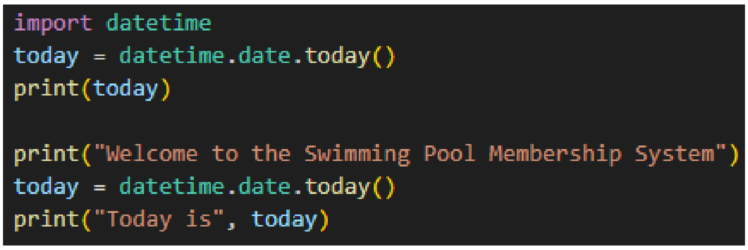
Part A:

1. Welcome Message and Setup

   a) Print a welcome message for the swimming pool membership system.

   b) Display today’s date using a variable.

   Code:

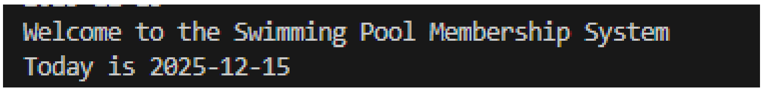


```
import datetime
today = datetime.date.today()
print(today)

print("Welcome to the Swimming Pool Membership System")
today = datetime.date.today()
print("Today is", today)
```

Figure 1 Part A Question 1 Code

Output:



```
Welcome to the Swimming Pool Membership System
Today is 2025-12-15
```

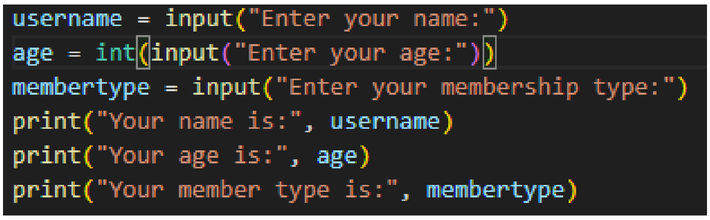
Figure 2 Part A Question 1 Output

2. Create user registration

   a) Ask the user for their name, age, and membership type

   b) Store them in variables and display back the entered details

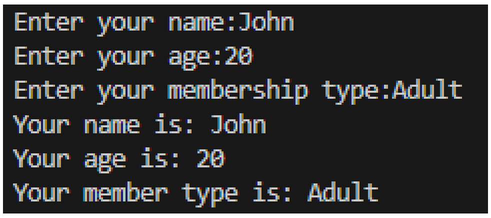
   Code:



```
username = input("Enter your name:")
age = int(input("Enter your age:"))
membertype = input("Enter your membership type:")
print("Your name is:", username)
print("Your age is:", age)
print("Your member type is:", membertype)
```

Figure 3 Part A Question 2 Code

Output:



```
Enter your name:John
Enter your age:20
Enter your membership type:Adult
Your name is: John
Your age is: 20
Your member type is: Adult
```

Figure 4 Part A Question 2 Output

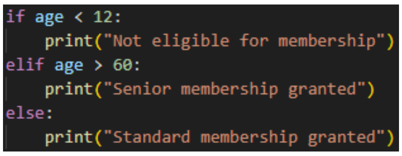
3. Age-based membership eligibility

a) If age < 12 – “Not eligible for membership”

b) If age 12-60 – “Standard membership granted”

c) If age > 60 – “Senior membership granted"

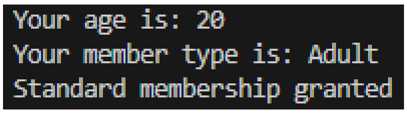
Code:



```python
if age < 12:
    print("Not eligible for membership")
elif age > 60:
    print("Senior membership granted")
else:
    print("Standard membership granted")
```

Figure 5 Part A Question 3 Code

Output:



```
Your age is: 20
Your member type is: Adult
Standard membership granted
```

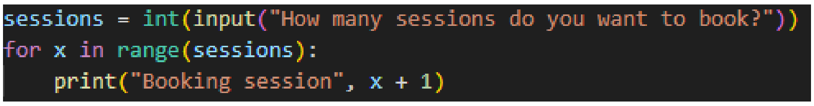
Figure 6 Part A Question 3 Output

4. Swimming session booking simulation

a) Ask the user how many swimming sessions they want to book.

b) Using a loop, display “Booking session X” for each session number until all sessions are booked.

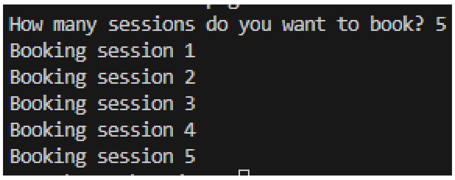
Code:



```python
sessions = int(input("How many sessions do you want to book?"))
for x in range(sessions):
    print("Booking session", x + 1)
```

Figure 7 Part A Question 4 Code

Output:



```
How many sessions do you want to book? 5
Booking session 1
Booking session 2
Booking session 3
Booking session 4
Booking session 5
```

Figure 8 Part A Question 4 Output

Part B:

1.

First Error:

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

Second Error:

b = book(t,a)

Third Error:

from library_module import book

2.

First Error:

First error will make the book unable to display in the program and cause a crash

Second Error:

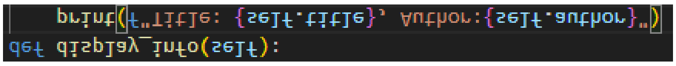
Will fail to import Book class and will crash when trying to use display.info()

Third Error:

Will fail to import Book class and will crash when trying to import

3.

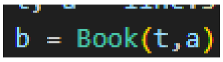
Fixed First Error:



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

Figure 9 Part B Question 3 Fixed Error 1

Fixed Second Error



```
b = Book(t,a)
```

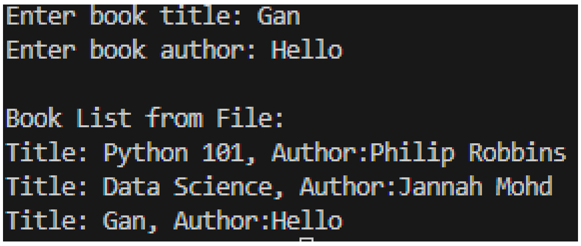
Figure 10 Part B Question 3 Fixed Error 2

Fixed Third Error:

```
from library_module import Book
```

Figure 11 Part B Question 3 Fixed Error 3

Program Output:



```
Enter book title: Gan
Enter book author: Hello

Book List from File:
Title: Python 101, Author:Philip Robbins
Title: Data Science, Author:Jannah Mohd
Title: Gan, Author:Hello
```

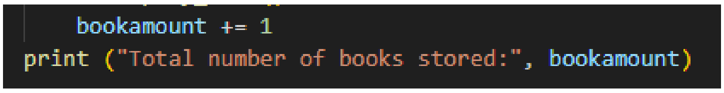
Figure 12 Part B Question 3 Output

4.

Easier to read code as class is stored separately in another file.

5.

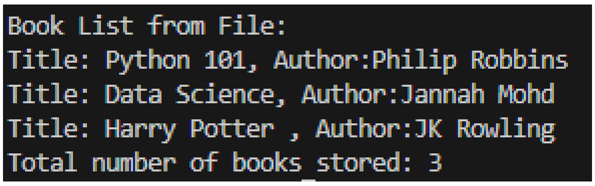
Code:



```
    bookamount += 1
print ("Total number of books stored:", bookamount)
```

Figure 13 Part B Question 5 Code

Output:



```
Book List from File:
Title: Python 101, Author:Philip Robbins
Title: Data Science, Author:Jannah Mohd
Title: Harry Potter , Author:JK Rowling
Total number of books stored: 3
```

Figure 14 Part B Question 5 Output