**Actividad 6.2**

**Documentación de Ejercicios**

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El presente trabajo ha sido realizado cumpliendo las políticas del curso y con los criterios de evaluación de la actividad. Asimismo, establezco que el contenido de este trabajo ha sido documentado en fuentes bibliográficas autorizadas, por tanto, la información redactada no ha sido plagiada de otro documento o trabajo ajeno ni de cualquier otra fuente de carácter confidencial.

**Pruebas de Software y Aseguramiento de la Calidad** | Fecha: 05/01/2025

Exercise #1: Reservation System

Req 1. Implement a set of classes in Python that implements two abstractions:

1. Hotel

2. Reservation

3. Customers

Req 2. Implement a set of methods to handle the next persistent behaviors (stored in files):

1. Hotels

a. Create Hotel

b. Delete Hotel

c. Display Hotel information

d. Modify Hotel Information

e. Reserve a Room

f. Cancel a Reservation

2. Customer

a. Create Customer

b. Delete a Customer

c. Display Customer Information

d. Modify Customer Information

3. Reservation

a. Create a Reservation (Customer, Hotel)

b. Cancel a Reservation

You are free to decide the attributes within each class that enable the required behavior.

Req 3. Implement unit test cases to exercise the methods in each class. Use the unittest module in Python.

Req 4. The code coverage for all unittests should accumulate at least 85% of line coverage.

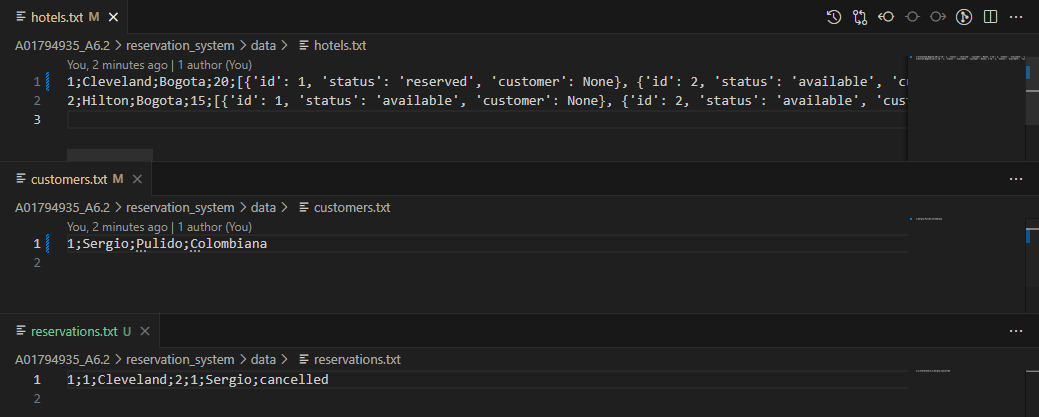
Req 5. The program shall include the mechanism to handle invalid data in the file. Errors should be displayed in the console and the execution must continue.

Req 6. Be compliant with PEP8.

Req 7. The source code must show no warnings using Fleak and PyLint.

* Results

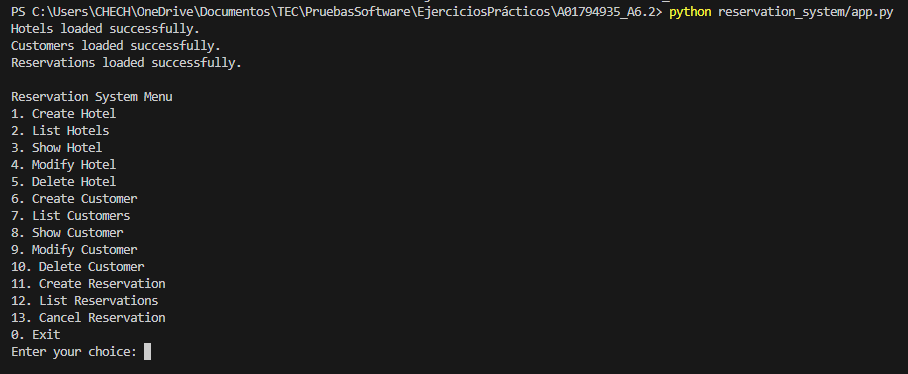
Exist 3 files for persist Hotel, Customer and Reservations



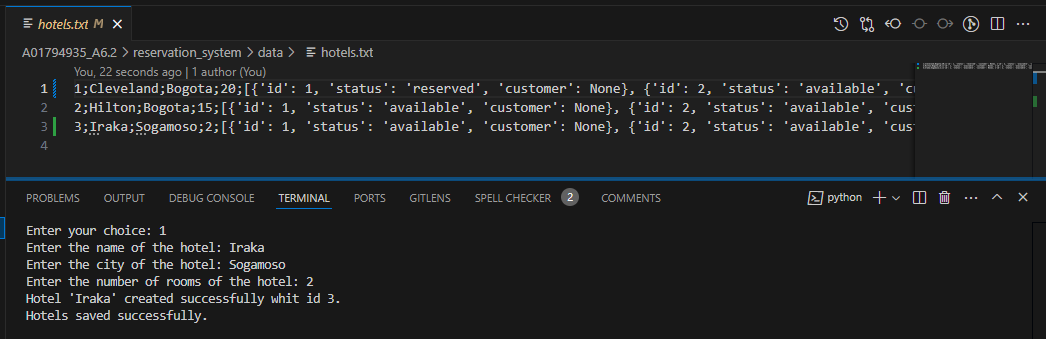
When the start of the application loads this file and build each file in the respective class

Texto

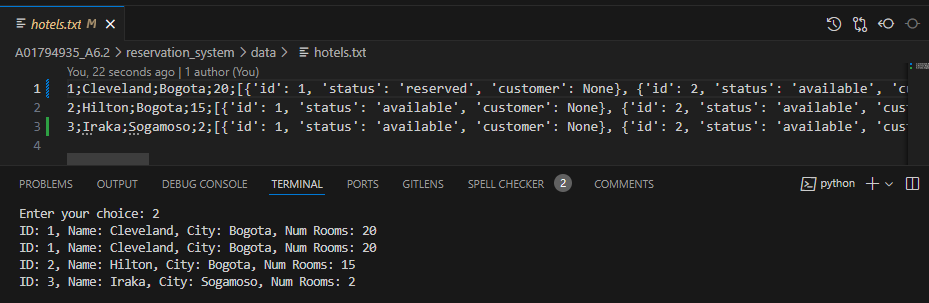
El contenido generado por IA puede ser incorrecto.



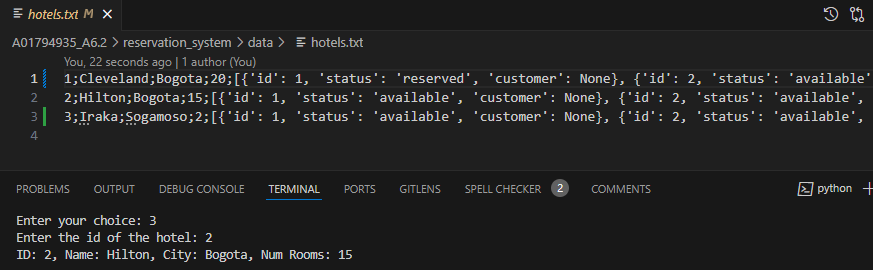
* Create Hotel



* List Hotels



* Get Hotel by Id



* Modify Hotel

Texto

El contenido generado por IA puede ser incorrecto.

* Delete Hotel

Captura de pantalla de un celular

El contenido generado por IA puede ser incorrecto.

* Create Customer

Texto

El contenido generado por IA puede ser incorrecto.

* List of Customers

Captura de pantalla de un celular

El contenido generado por IA puede ser incorrecto.

* Get Customer by Id

Texto

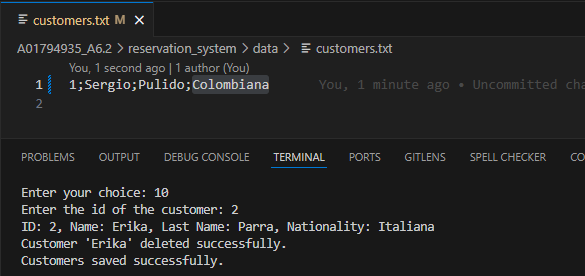
El contenido generado por IA puede ser incorrecto.

* Modify Customer

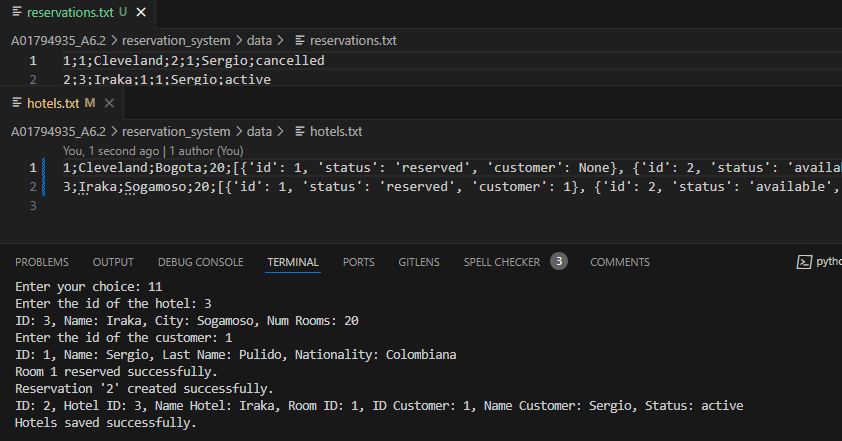
Texto

El contenido generado por IA puede ser incorrecto.

* Delete Customer



* Reserved Hotel

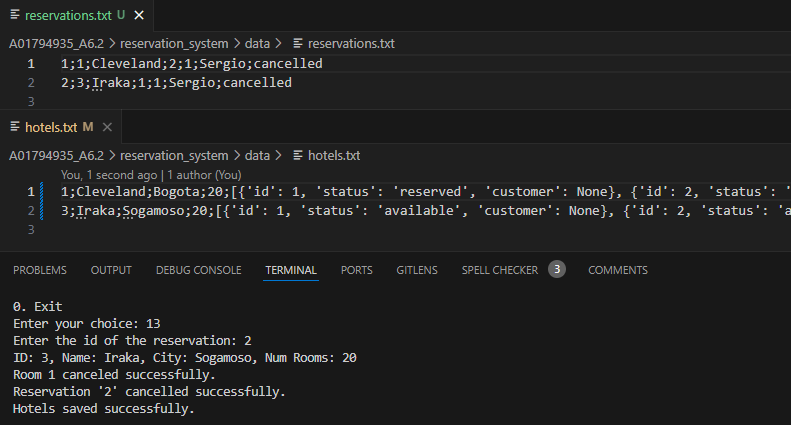


* List Reservations

Texto

El contenido generado por IA puede ser incorrecto.

* Cancel Reservation



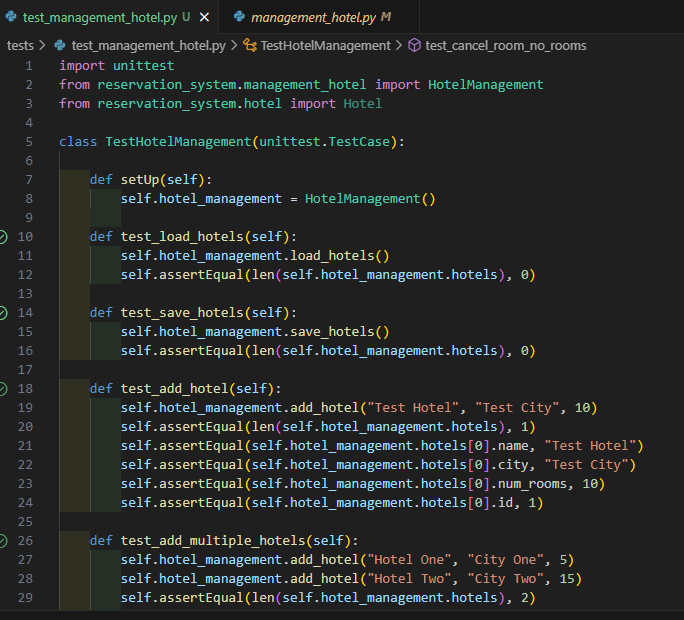
* Exit

Interfaz de usuario gráfica, Texto

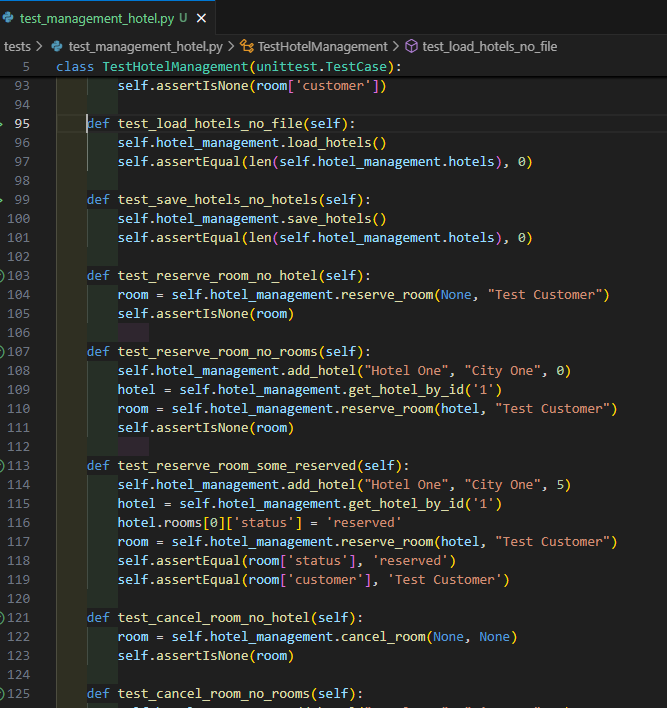
El contenido generado por IA puede ser incorrecto.

* UnitTest

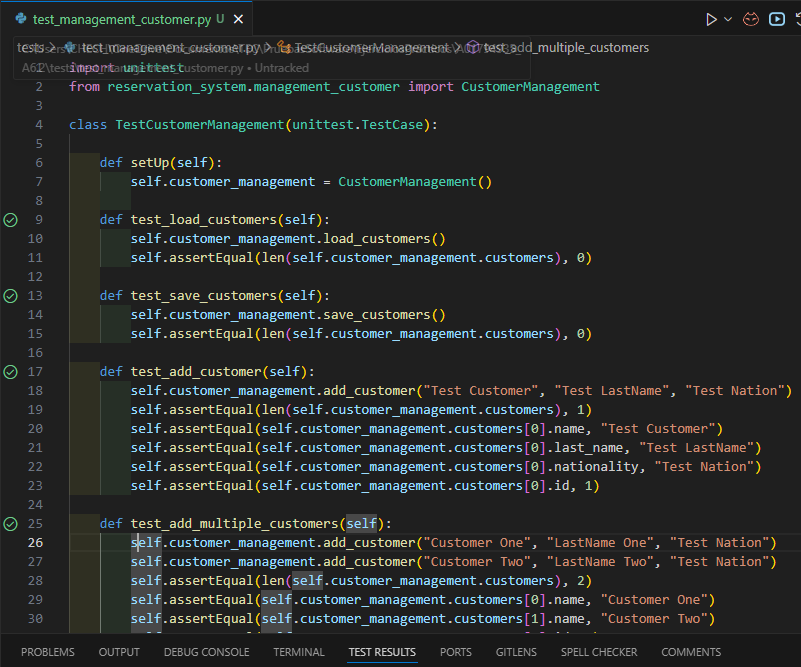
Implement UnitTest for Hotel and HotelManagement Class



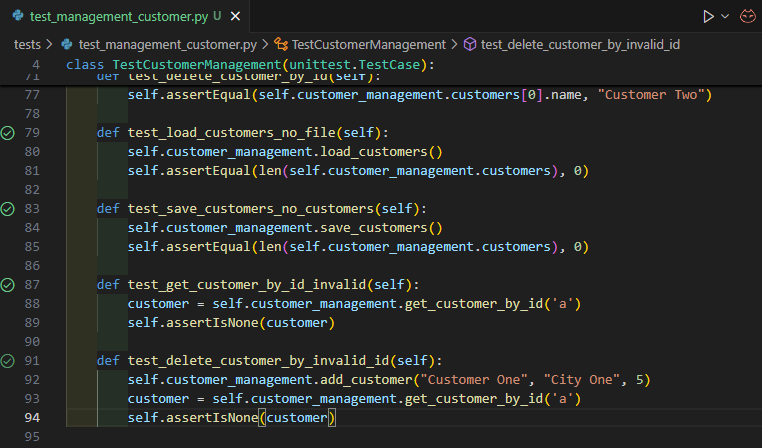
Also implement negative cases



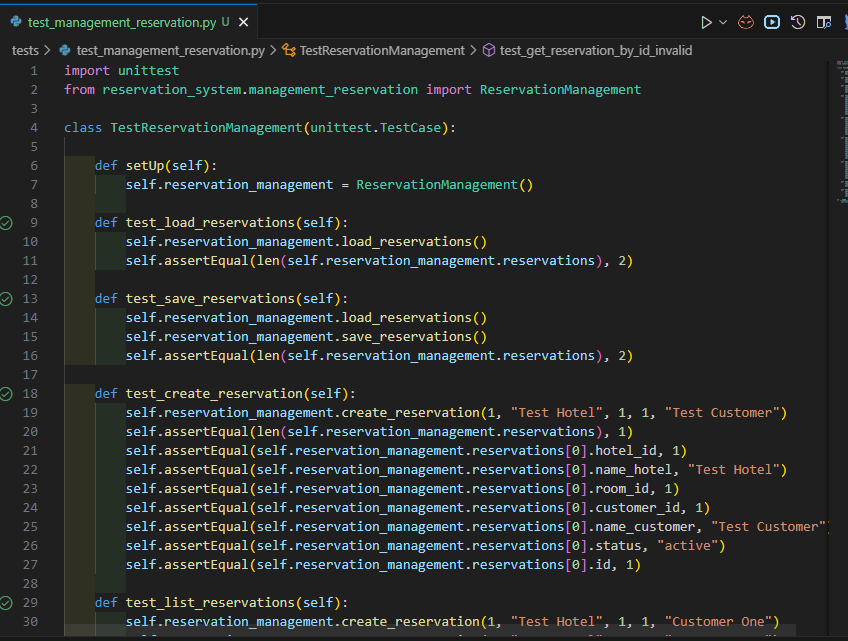
Implement UnitTest for Customer and CustomerManagement Class



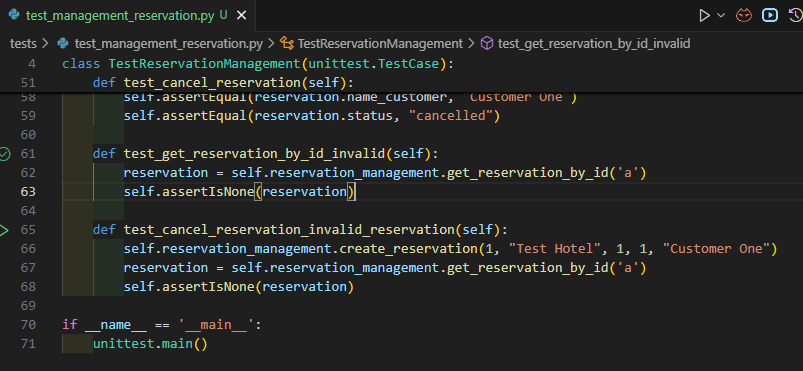
Also implement negative cases



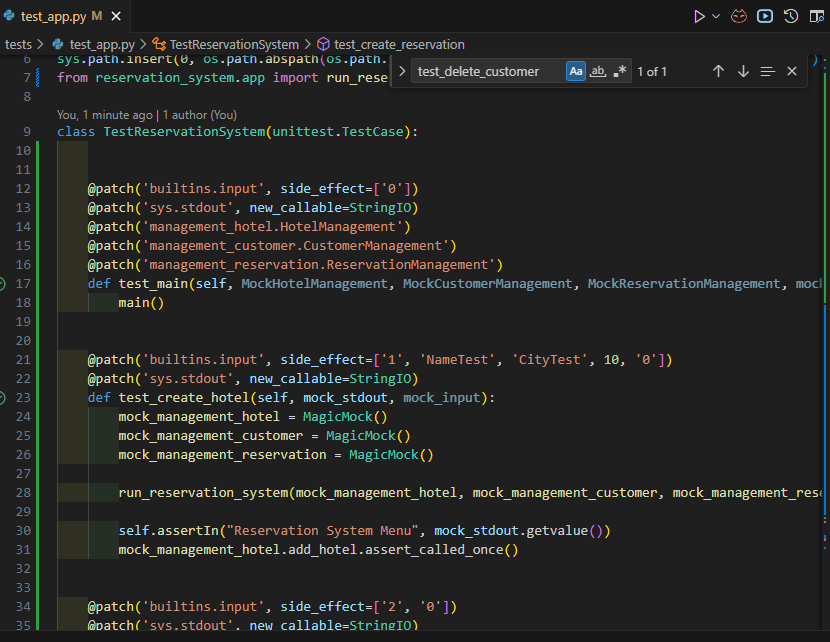
Implement UnitTest for Reservation and ReservationManagement Class



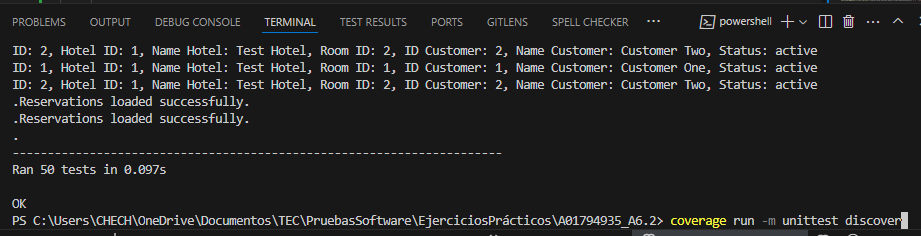
Also implement negative cases



Before that implement any cases for principal app.py



All test implements are successful



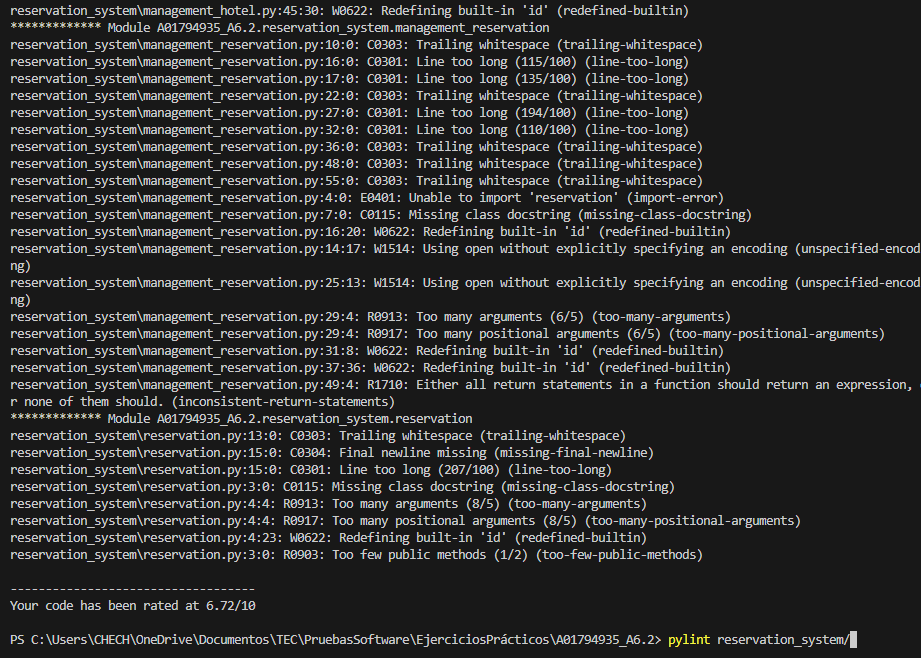
And report the coverage is high

Texto

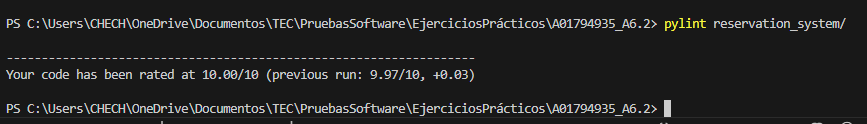
El contenido generado por IA puede ser incorrecto.

* Pylint

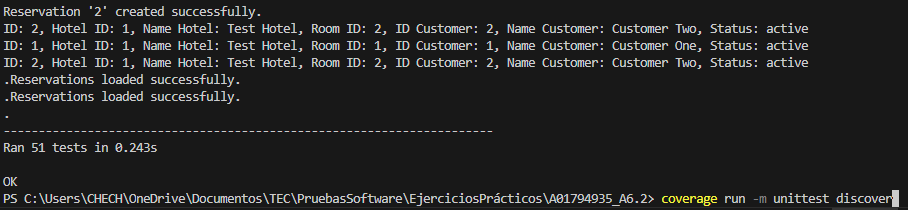
When execute pylint appear many issues:



Finally, after many changes pylint isn’t issues:



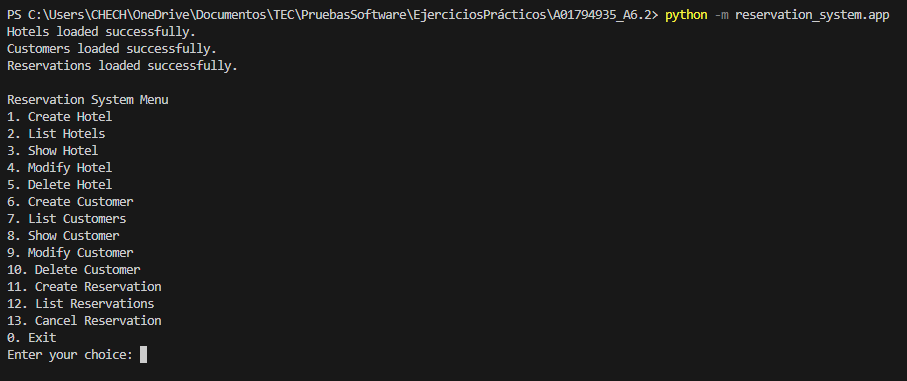
As change part of the code, rerun the tests and adjust problems that appear, and finally run all test successfully and the coverage is ok



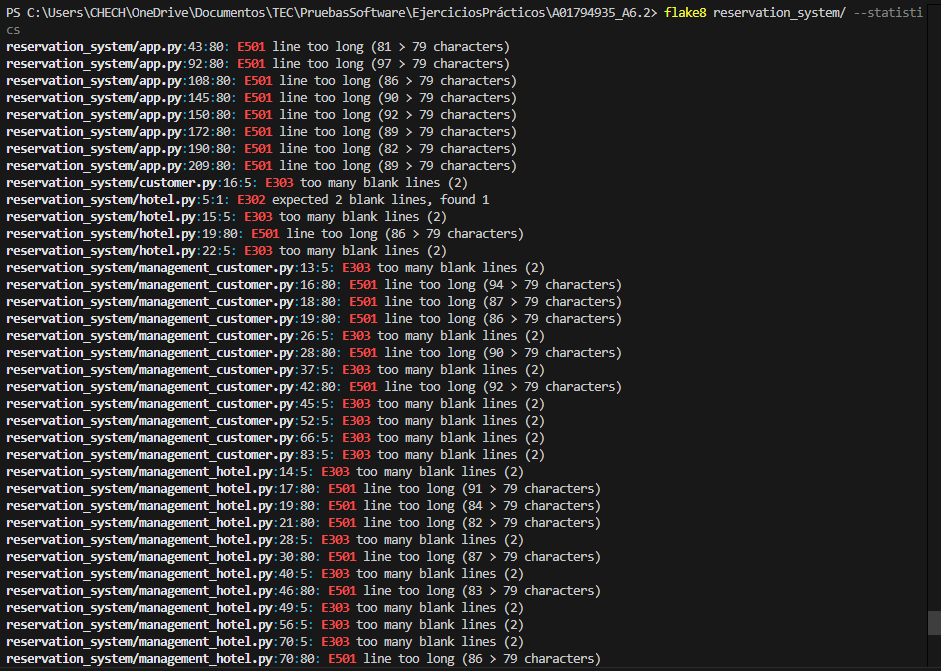
Captura de pantalla de computadora

El contenido generado por IA puede ser incorrecto.

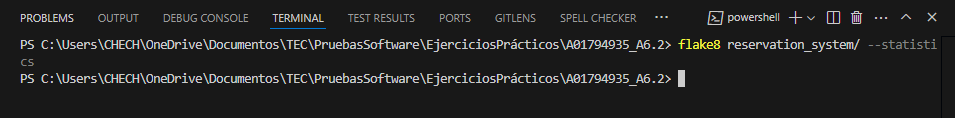
And execute the program



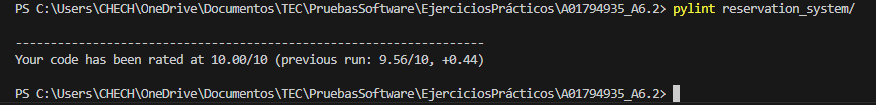
* Flake8



Check and fix the Flake8 issues, and corroborate that function is executing correctly.



Pylint preserves the successful report



The program is executed successfully

Texto

El contenido generado por IA puede ser incorrecto.

And Tests report all ok

