

Instituto Tecnológico y de Estudios
Superiores de Monterrey

Tarea:6.2 Ejercicio de programación 3 y pruebas de unidad

Maria del Consuelo Ruiz Martinez

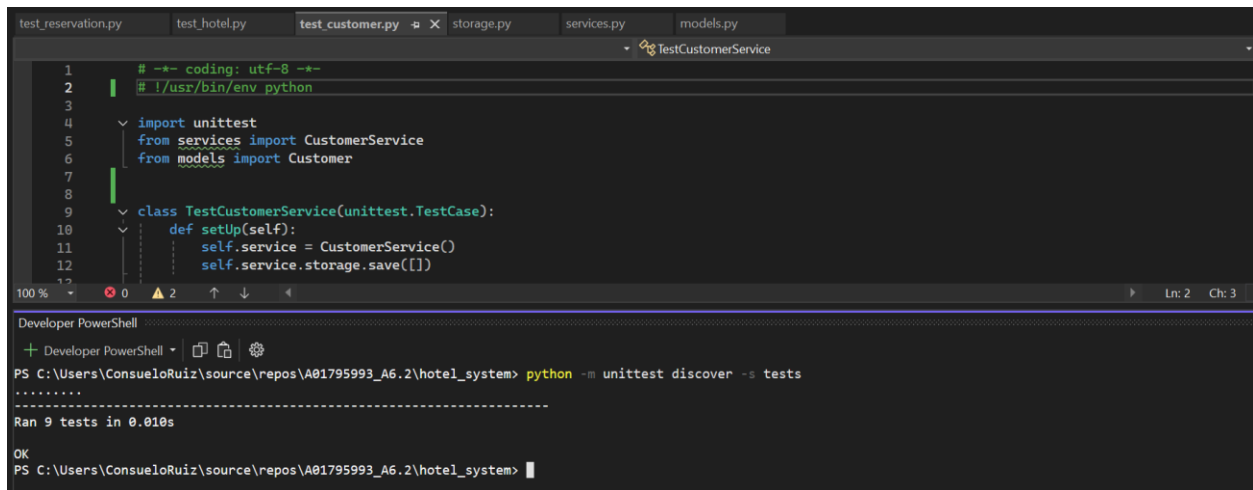
A01795993

Pruebas de software y aseguramiento de la calidad

22 de febrero del 2026

Anexo de pantallas de validación:

python -m unittest discover -s tests



The screenshot shows an IDE with a file explorer at the top displaying `test_reservation.py`, `test_hotel.py`, `test_customer.py` (selected), `storage.py`, `services.py`, and `models.py`. The editor shows the content of `test_customer.py`:

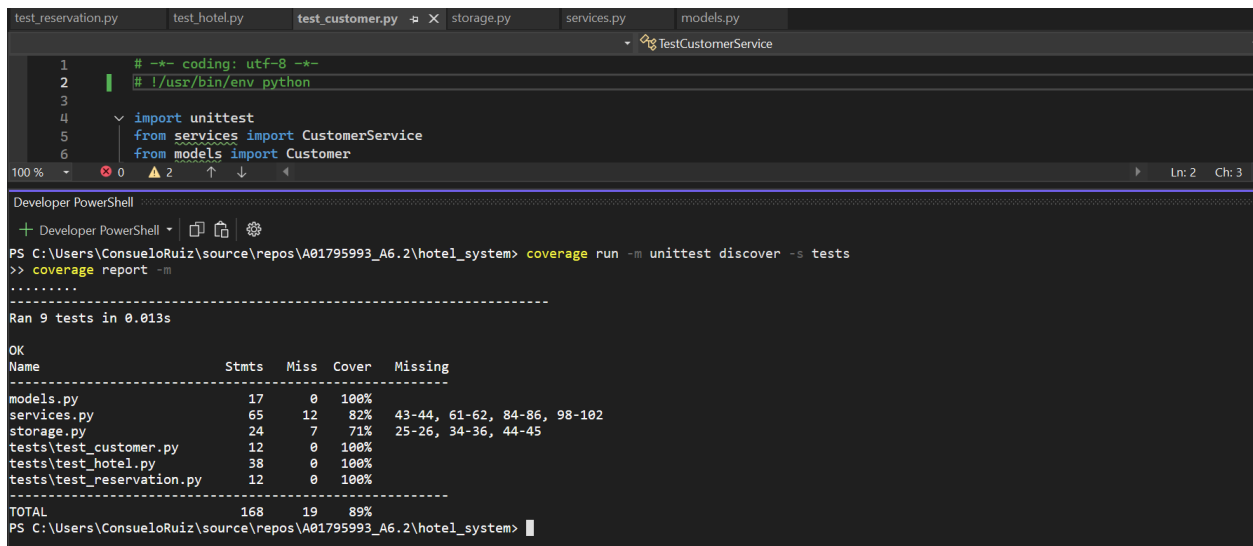
```
1  # -*- coding: utf-8 -*-
2  # !/usr/bin/env python
3
4  import unittest
5  from services import CustomerService
6  from models import Customer
7
8
9  class TestCustomerService(unittest.TestCase):
10     def setUp(self):
11         self.service = CustomerService()
12         self.service.storage.save([])
```

Below the editor is a Developer PowerShell terminal window. It shows the command `python -m unittest discover -s tests` being executed. The output indicates that 9 tests were run successfully in 0.010 seconds.

```
PS C:\Users\ConsueloRuiz\source\repos\A01795993_A6.2\hotel_system> python -m unittest discover -s tests
.....
Ran 9 tests in 0.010s

OK
PS C:\Users\ConsueloRuiz\source\repos\A01795993_A6.2\hotel_system>
```

coverage report -m

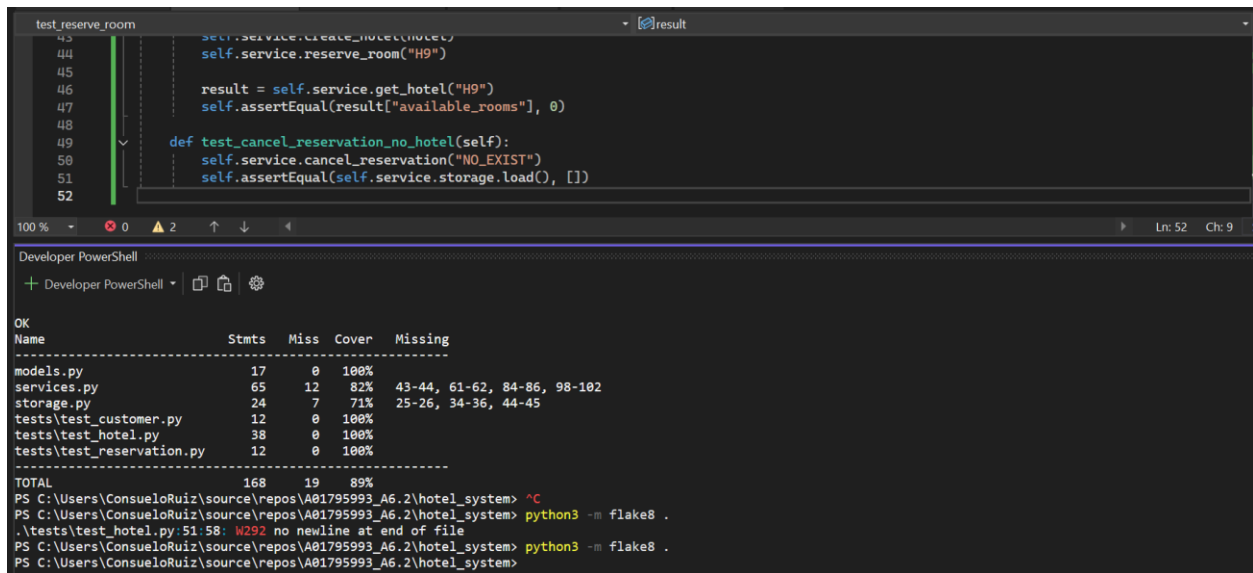


The screenshot shows the same IDE as before, but the terminal window now shows the command `coverage run -m unittest discover -s tests` followed by `coverage report -m`. The output includes a coverage report table.

```
PS C:\Users\ConsueloRuiz\source\repos\A01795993_A6.2\hotel_system> coverage run -m unittest discover -s tests
>> coverage report -m
.....
Ran 9 tests in 0.013s

OK
Name                               Stmts  Miss  Cover   Missing
-----
models.py                           17      0  100%
services.py                         65     12   82%   43-44, 61-62, 84-86, 98-102
storage.py                          24      7   71%   25-26, 34-36, 44-45
tests\test_customer.py              12      0  100%
tests\test_hotel.py                 38      0  100%
tests\test_reservation.py           12      0  100%
-----
TOTAL                               168     19   89%
PS C:\Users\ConsueloRuiz\source\repos\A01795993_A6.2\hotel_system>
```

flake8



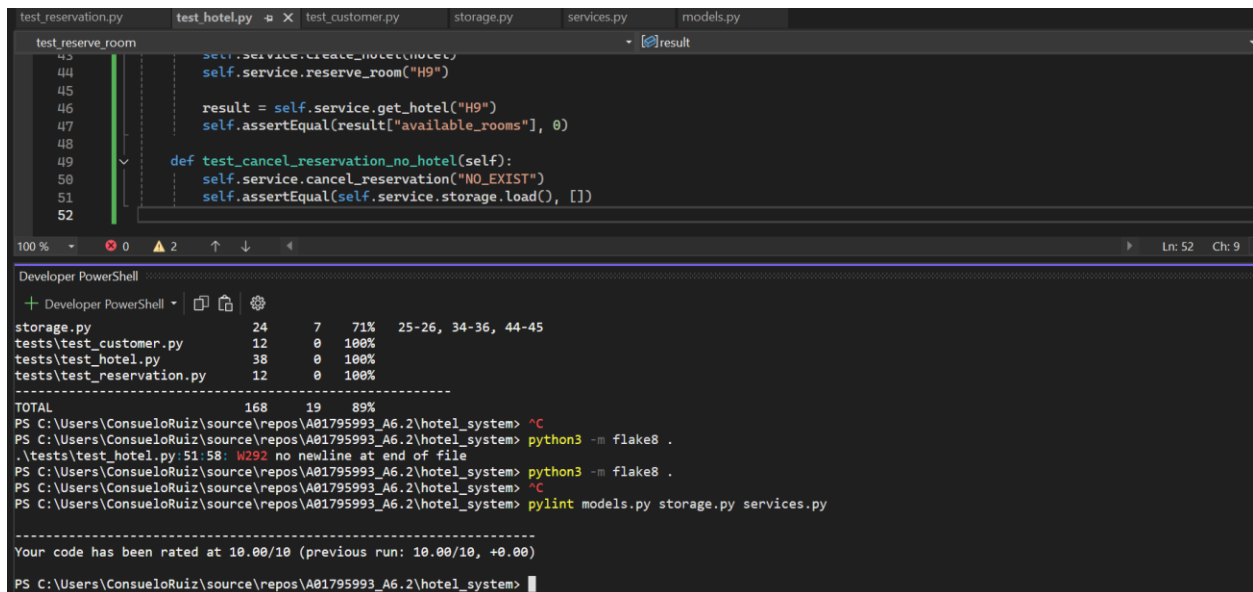
The screenshot shows a VS Code editor with a Python file containing test functions. The terminal window displays the output of the flake8 command, showing a table of file statistics and a list of errors.

```
test_reserve_room
43 self.service.create_hotel(hotel)
44 self.service.reserve_room("H9")
45
46 result = self.service.get_hotel("H9")
47 self.assertEqual(result["available_rooms"], 0)
48
49 def test_cancel_reservation_no_hotel(self):
50     self.service.cancel_reservation("NO_EXIST")
51     self.assertEqual(self.service.storage.load(), [])
52
```

Name	Stmts	Miss	Cover	Missing
models.py	17	0	100%	
services.py	65	12	82%	43-44, 61-62, 84-86, 98-102
storage.py	24	7	71%	25-26, 34-36, 44-45
tests\test_customer.py	12	0	100%	
tests\test_hotel.py	38	0	100%	
tests\test_reservation.py	12	0	100%	
TOTAL	168	19	89%	

```
PS C:\Users\ConsueloRuiz\source\repos\A01795993_A6.2\hotel_system> ^C
PS C:\Users\ConsueloRuiz\source\repos\A01795993_A6.2\hotel_system> python3 -m flake8 .
.\tests\test_hotel.py:51:58: W292 no newline at end of file
PS C:\Users\ConsueloRuiz\source\repos\A01795993_A6.2\hotel_system> python3 -m flake8 .
PS C:\Users\ConsueloRuiz\source\repos\A01795993_A6.2\hotel_system>
```

pylint models.py storage.py services.py



The screenshot shows a VS Code editor with a Python file containing test functions. The terminal window displays the output of the pylint command, showing a table of file statistics and a list of errors.

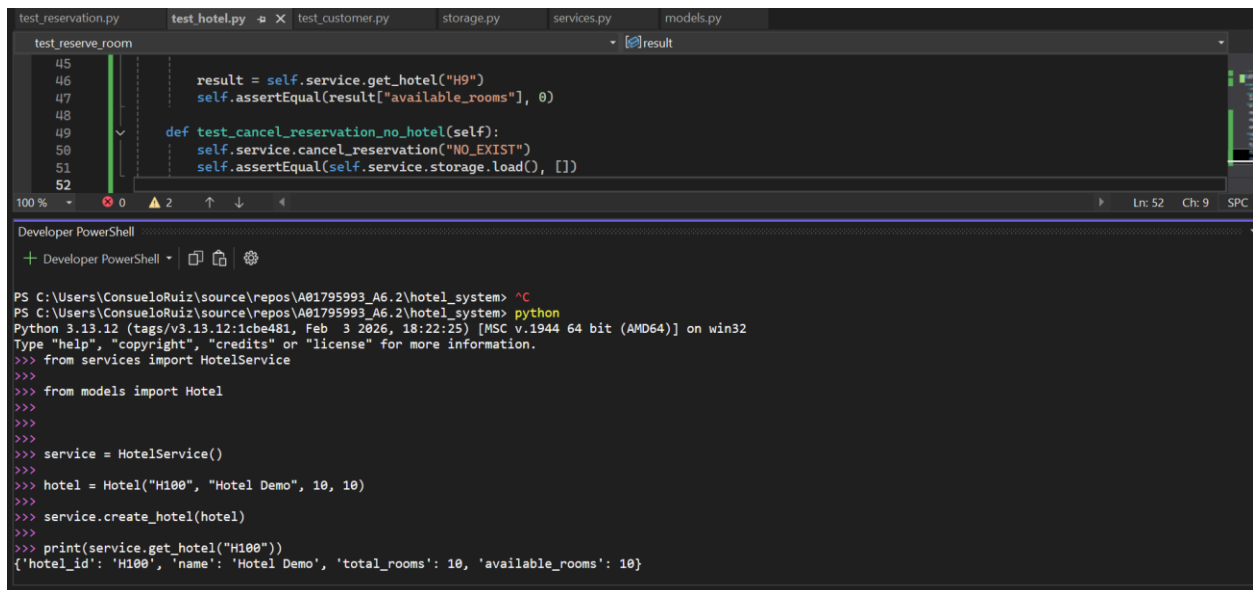
```
test_reservation.py test_hotel.py test_customer.py storage.py services.py models.py
test_reserve_room
43 self.service.create_hotel(hotel)
44 self.service.reserve_room("H9")
45
46 result = self.service.get_hotel("H9")
47 self.assertEqual(result["available_rooms"], 0)
48
49 def test_cancel_reservation_no_hotel(self):
50     self.service.cancel_reservation("NO_EXIST")
51     self.assertEqual(self.service.storage.load(), [])
52
```

Name	Stmts	Miss	Cover	Missing
storage.py	24	7	71%	25-26, 34-36, 44-45
tests\test_customer.py	12	0	100%	
tests\test_hotel.py	38	0	100%	
tests\test_reservation.py	12	0	100%	
TOTAL	168	19	89%	

```
PS C:\Users\ConsueloRuiz\source\repos\A01795993_A6.2\hotel_system> ^C
PS C:\Users\ConsueloRuiz\source\repos\A01795993_A6.2\hotel_system> python3 -m flake8 .
.\tests\test_hotel.py:51:58: W292 no newline at end of file
PS C:\Users\ConsueloRuiz\source\repos\A01795993_A6.2\hotel_system> python3 -m flake8 .
PS C:\Users\ConsueloRuiz\source\repos\A01795993_A6.2\hotel_system> ^C
PS C:\Users\ConsueloRuiz\source\repos\A01795993_A6.2\hotel_system> pylint models.py storage.py services.py

Your code has been rated at 10.00/10 (previous run: 10.00/10, +0.00)
PS C:\Users\ConsueloRuiz\source\repos\A01795993_A6.2\hotel_system>
```

Corrida del Sistema:



The image shows a code editor with several tabs: `test_reservation.py`, `test_hotel.py` (active), `test_customer.py`, `storage.py`, `services.py`, and `models.py`. The active tab `test_hotel.py` shows the following Python code:

```
45
46         result = self.service.get_hotel("H9")
47         self.assertEqual(result["available_rooms"], 0)
48
49     def test_cancel_reservation_no_hotel(self):
50         self.service.cancel_reservation("NO_EXIST")
51         self.assertEqual(self.service.storage.load(), [])
52
```

Below the code editor is a `Developer PowerShell` terminal window. It shows the command `python` being executed, which starts a Python 3.13.12 interpreter. The terminal output includes the Python version, date, and architecture. The user then imports `HotelService` from `services` and `Hotel` from `models`. They create a `HotelService` instance, create a `Hotel` object with ID "H100", name "Hotel Demo", and 10 rooms, and then call `service.create_hotel(hotel)`. Finally, they print the result of `service.get_hotel("H100")`, which returns a dictionary: `{'hotel_id': 'H100', 'name': 'Hotel Demo', 'total_rooms': 10, 'available_rooms': 10}`.

```
PS C:\Users\ConsueloRuiz\source\repos\A81795993_A6.2\hotel_system> ^C
PS C:\Users\ConsueloRuiz\source\repos\A81795993_A6.2\hotel_system> python
Python 3.13.12 (tags/v3.13.12:1cbe481, Feb 3 2026, 18:22:25) [MSC v.1944 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> from services import HotelService
>>>
>>> from models import Hotel
>>>
>>>
>>> service = HotelService()
>>>
>>> hotel = Hotel("H100", "Hotel Demo", 10, 10)
>>>
>>> service.create_hotel(hotel)
>>>
>>> print(service.get_hotel("H100"))
{'hotel_id': 'H100', 'name': 'Hotel Demo', 'total_rooms': 10, 'available_rooms': 10}
```