

Instituto Tecnológico y de Estudios  
Superiores de Monterrey

## 6.2 Ejercicio de programación 3 y pruebas de unidad

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Pruebas de software y aseguramiento de la calidad

Fecha: 22/02/2026

Req 8. Be compliant with PEP8.

Pylint

```
Problems  Output  Debug Console  Terminal  Ports
Python + v @ [ ] [ ] ... |

it -m "style: fix pylint warnings and add module docstring"
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean
● PS D:\Documentos\Maestria Inteligencia artificial\Pruebas de software y aseguramiento de la calidad\A01092551_6.2> git push
Everything up-to-date
● PS D:\Documentos\Maestria Inteligencia artificial\Pruebas de software y aseguramiento de la calidad\A01092551_6.2> pylint hotel_reservation.py

-----
Your code has been rated at 10.00/10 (previous run: 10.00/10, +0.00)
○ PS D:\Documentos\Maestria Inteligencia artificial\Pruebas de software y aseguramiento de la calidad\A01092551_6.2>
```

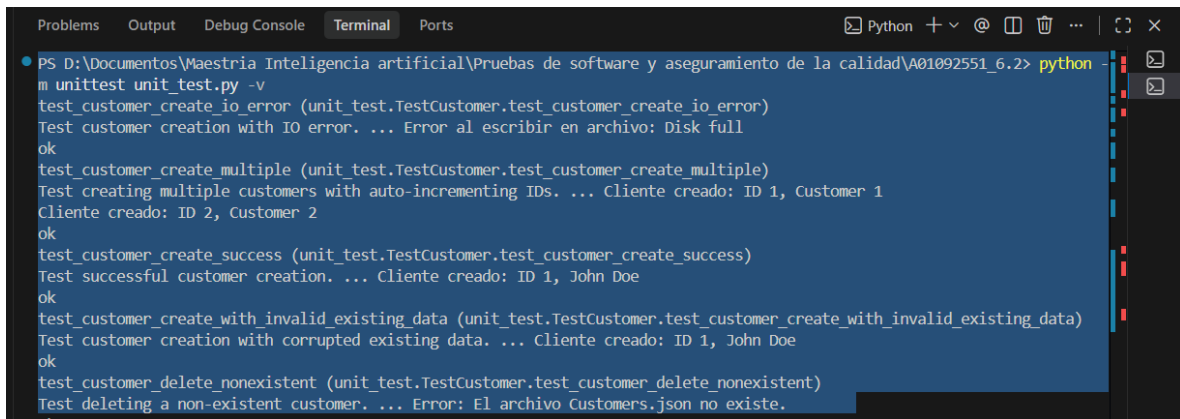
Flake8

```
Problems  Output  Debug Console  Terminal  Ports
Python + v @ [ ] [ ] ... |

-----
Your code has been rated at 10.00/10 (previous run: 10.00/10, +0.00)

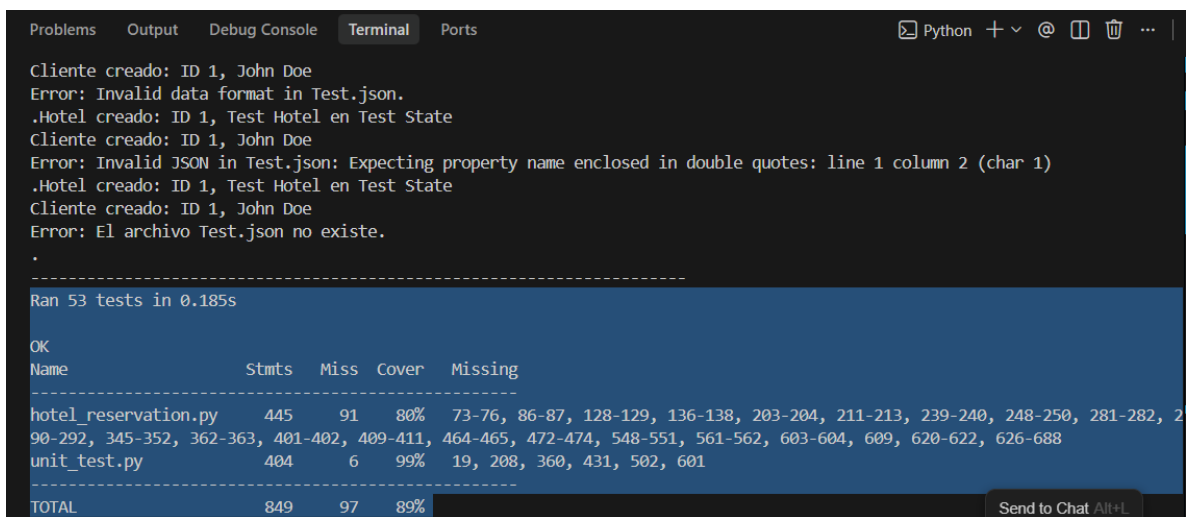
● PS D:\Documentos\Maestria Inteligencia artificial\Pruebas de software y aseguramiento de la calidad\A01092551_6.2> flake8 hotel_reservation.py
hotel_reservation.py:3:80: E501 line too long (80 > 79 characters)
hotel_reservation.py:4:80: E501 line too long (81 > 79 characters)
hotel_reservation.py:218:1: W293 blank line contains whitespace
hotel_reservation.py:297:1: E302 expected 2 blank lines, found 1
hotel_reservation.py:478:1: E302 expected 2 blank lines, found 1
hotel_reservation.py:591:55: E127 continuation line over-indented for visual indent
hotel_reservation.py:625:1: E305 expected 2 blank lines after class or function definition, found 1
● PS D:\Documentos\Maestria Inteligencia artificial\Pruebas de software y aseguramiento de la calidad\A01092551_6.2> flake8 hotel_reservation.py
○ PS D:\Documentos\Maestria Inteligencia artificial\Pruebas de software y aseguramiento de la calidad\A01092551_6.2>
```

## Unit test



```
PS D:\Documentos\Maestria Inteligencia artificial\Pruebas de software y aseguramiento de la calidad\A01092551_6.2> python -m unittest unit_test.py -v
test_customer_create_io_error (unit_test.TestCustomer.test_customer_create_io_error)
Test customer creation with IO error. ... Error al escribir en archivo: Disk full
ok
test_customer_create_multiple (unit_test.TestCustomer.test_customer_create_multiple)
Test creating multiple customers with auto-incrementing IDs. ... Cliente creado: ID 1, Customer 1
Cliente creado: ID 2, Customer 2
ok
test_customer_create_success (unit_test.TestCustomer.test_customer_create_success)
Test successful customer creation. ... Cliente creado: ID 1, John Doe
ok
test_customer_create_with_invalid_existing_data (unit_test.TestCustomer.test_customer_create_with_invalid_existing_data)
Test customer creation with corrupted existing data. ... Cliente creado: ID 1, John Doe
ok
test_customer_delete_nonexistent (unit_test.TestCustomer.test_customer_delete_nonexistent)
Test deleting a non-existent customer. ... Error: El archivo Customers.json no existe.
```

## Coverage



```
Cliente creado: ID 1, John Doe
Error: Invalid data format in Test.json.
.Hotel creado: ID 1, Test Hotel en Test State
Cliente creado: ID 1, John Doe
Error: Invalid JSON in Test.json: Expecting property name enclosed in double quotes: line 1 column 2 (char 1)
.Hotel creado: ID 1, Test Hotel en Test State
Cliente creado: ID 1, John Doe
Error: El archivo Test.json no existe.
.
-----
Ran 53 tests in 0.185s

OK
Name                               Stmts  Miss  Cover   Missing
-----
hotel_reservation.py               445     91    80%    73-76, 86-87, 128-129, 136-138, 203-204, 211-213, 239-240, 248-250, 281-282, 290-292, 345-352, 362-363, 401-402, 409-411, 464-465, 472-474, 548-551, 561-562, 603-604, 609, 620-622, 626-688
unit_test.py                       404      6    99%    19, 208, 360, 431, 502, 601
-----
TOTAL                             849     97    89%
```