



Universidad Carlos III
Curso Desarrollo de Software 2024-25
Ejercicio Guiado 1

Propiedad Colectiva de Código y Normativas de Código

Grupo: **80**
Titulación: **Ingeniería Informática**
Grupo trabajo: **06**
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Normativa de código

La normativa seguida en el proyecto sigue el estándar PEP-8, sin embargo se han modificado las siguientes normas:

1. **Nombre de argumentos:** lo hemos cambiado para tener más libertad a la hora de nombrarlos (cambio en

Regular expression matching correct argument names.)

#REGLA ORIGINAL

#argument-naming-style=snake_case

#REGLA MODIFICADA

argument-rgx= [a-z_][a-zA-Z0-9_]{1,20}\$

→ Ejemplo negativo: receptorNaMe, IBAN_TO

→ Ejemplo positivo: receptor_name, __iban_to, iban_to

2. **Nombre de funciones:** hemos decidido hacer este cambio porque nos parece una tipografía más legible (cambio en

Naming style matching correct function names.)

#REGLA ORIGINAL

#function-naming-style=snake_case

#REGLA MODIFICADA

function-naming-style=PascalCase

→ Ejemplo negativo: funcion

→ Ejemplo positivo: Funcion

3. **Nombre de métodos:** al igual que en las funciones, nos parece un tipo de letra más legible (cambio en

Naming style matching correct method names.)

#REGLA ORIGINAL

#method-naming-style=snake_case

#REGLA MODIFICADA

method-naming-style=PascalCase

→ Ejemplo negativo: Readproductcodefrom_JSON

→ Ejemplo positivo: ReadProductCodeFromJson

4. **Nombre de módulos:** para no tener que cambiar los módulos proporcionados en el enunciado (cambio en

Regular expression matching correct module names.)

#REGLA ORIGINAL

#module-naming-style=snake_case

#REGLA MODIFICADA

module-rgx=[a-zA-Z_][a-zA-Z0-9_]{2,30}\$

→ Ejemplo negativo: 3m_money

→ Ejemplo positivo: UC3MMoney

5. **Nombre de atributos:** necesitamos una regla más flexible para los atributos privados (cambio en

Regular expression matching correct attribute names.)

#REGLA ORIGINAL

#attr-naming-style=snake_case

#REGLA MODIFICADA

attr-rgx=[a-zA-Z_][a-zA-Z0-9_]{2,20}\$

→ Ejemplo negativo: 1_message

→ Ejemplo positivo: __message, message, Message

6. **Nombre de variables:** para más libertad y no modificar las variables proporcionadas (cambio en

Regular expression matching correct variable names.)

```
#REGLA ORIGINAL
#variable-naming-style=snake_case
```

```
#REGLA MODIFICADA
variable-rgx=[a-z][a-zA-Z0-9_]{0,30}$
```

→ Ejemplo negativo: DATA, T_FROM

→ Ejemplo positivo: data, t_from

7. **Pista para corregir el formato de un invalid-name:** así podemos corregir el código de forma más sencilla y entender qué quiere que modifiquemos el pylint (cambio en

Include a hint for the correct naming format with invalid-name)

```
#REGLA ORIGINAL
#include-naming-hint=no
```

```
#REGLA MODIFICADA
include-naming-hint=yes
```

8. **Número máximo de argumentos:** hemos cambiado esta regla para que haya menos restricciones (cambio en

Maximum number of arguments for function / method.

```
#REGLA ORIGINAL
#max-args=5
```

```
#REGLA MODIFICADA
max-args=9
```

→ Ejemplo negativo: method(a1,a2, a3, a4, a5, a6, a7, a8, a9)

→ Ejemplo positivo: method1(a1,a2, a3, a4, a5, a6, a7, a8, a9), method2(a1,a2, a3, a4, a5)

9. **Mostrar un reporte completo de la evaluación del código:** de esta forma podemos obtener la evaluación completa de nuestro código e identificar donde se presentan más errores de código de forma más sencilla (cambio en

Tells whether to display a full report or only the messages.)

```
#REGLA ORIGINAL
#reports=no
```

```
#REGLA MODIFICADA
reports=yes
```

→ Ejemplo positivo:

```
Report
=====
75 statements analysed.

Statistics by type
-----
+-----+-----+-----+-----+-----+
|type    |number|old number|difference| %documented| %badname|
+-----+-----+-----+-----+-----+
|module  |4      |4         |=         |0.00      |0.00     |
+-----+-----+-----+-----+-----+
|class   |3      |3         |=         |0.00      |0.00     |
+-----+-----+-----+-----+-----+
|method  |14     |14        |=         |57.14     |0.00     |
+-----+-----+-----+-----+-----+
|function|0      |NC        |NC        |0          |0        |
+-----+-----+-----+-----+-----+

118 lines have been analyzed
```

```
Raw metrics
-----
+-----+-----+-----+-----+-----+
|type    |number| %    |previous|difference|
+-----+-----+-----+-----+-----+
|code     |91     |77.12|91       |=         |
+-----+-----+-----+-----+-----+
|docstring|0       |0.00 |NC       |NC        |
+-----+-----+-----+-----+-----+
|comment  |7       |5.93 |7        |=         |
+-----+-----+-----+-----+-----+
|empty    |20      |16.95|20       |=         |
+-----+-----+-----+-----+-----+
```

Duplication

```

-----
+-----+-----+-----+-----+
|               |now   |previous|difference|
+=====+=====+=====+=====+
|nb duplicated lines|0     |0       |0         |
+-----+-----+-----+-----+
|percent duplicated lines|0.000|0.000   |=         |
+-----+-----+-----+-----+

```

Messages by category

```

-----
+-----+-----+-----+-----+
|type      |number|previous|difference|
+=====+=====+=====+=====+
|convention|0     |0       |0         |
+-----+-----+-----+-----+
|refactor  |0     |0       |0         |
+-----+-----+-----+-----+
|warning   |1     |1       |1         |
+-----+-----+-----+-----+
|error     |0     |0       |0         |
+-----+-----+-----+-----+

```

% errors / warnings by module

```

-----
+-----+-----+-----+-----+
|module                |error|warning|refactor|convention|
+=====+=====+=====+=====+
|UC3MMoney.TransactionRequest|0.00 |100.00 |0.00   |0.00     |
+-----+-----+-----+-----+

```

Messages

```

-----
+-----+-----+
|message id          |occurrences|
+=====+=====+
|unused-private-member|1          |
+-----+-----+

```

10. **Cadena de documentación:** eliminados los docstring de módulo, clase y función para que no de error si se nos olvida ponerlo (cambio en
 # Disable the message, report, category or checker with the given id(s).)

```

disable=raw-checker-failed,
        bad-inline-option,
        locally-disabled,
        file-ignored,
        suppressed-message,
        useless-suppression,
        deprecated-pragma,
        use-symbolic-message-instead,
        use-implicit-booleaness-not-comparison-to-string,
        use-implicit-booleaness-not-comparison-to-zero,
        #REGLA MODIFICADA
        missing-module-docstring,
        missing-class-docstring,
        missing-function-docstring

```

→ Ejemplo negativo:

```
C0115: Missing class docstring (missing-class-docstring)
```

A continuación, adjuntamos capturas de pantalla en donde mostramos la evolución de este proyecto, y la corrección de errores a medida que se realizaban los cambios correspondientes.

- Antes de modificar el pylint y el código, es decir, el código inicial proporcionado:
→ Errores de las carpetas incluidas en UC3MMoney:

```
***** Module UC3MMoney
UC3MMoney\__init__.py:3:0: C0304: Final newline missing (missing-final-newline)
UC3MMoney\__init__.py:1:0: C0114: Missing module docstring (missing-module-docstring)
UC3MMoney\__init__.py:1:0: C0103: Module name "UC3MMoney" doesn't conform to snake_case naming style (invalid-name)
***** Module UC3MMoney.TransactionManagementException
UC3MMoney\TransactionManagementException.py:1:0: C0114: Missing module docstring (missing-module-docstring)
UC3MMoney\TransactionManagementException.py:1:0: C0103: Module name "TransactionManagementException" doesn't conform to snake_case naming style (invalid-name)
UC3MMoney\TransactionManagementException.py:1:0: C0115: Missing class docstring (missing-class-docstring)
UC3MMoney\TransactionManagementException.py:7:4: C0116: Missing function or method docstring (missing-function-docstring)
***** Module UC3MMoney.TransactionManager
UC3MMoney\TransactionManager.py:1:0: C0114: Missing module docstring (missing-module-docstring)
UC3MMoney\TransactionManager.py:1:0: C0103: Module name "TransactionManager" doesn't conform to snake_case naming style (invalid-name)
UC3MMoney\TransactionManager.py:6:0: C0115: Missing class docstring (missing-class-docstring)
UC3MMoney\TransactionManager.py:10:4: C0103: Method name "ValidateIban" doesn't conform to snake_case naming style (invalid-name)
UC3MMoney\TransactionManager.py:41:4: C0116: Missing function or method docstring (missing-function-docstring)
UC3MMoney\TransactionManager.py:41:4: C0103: Method name "ReadproductcodefromJSON" doesn't conform to snake_case naming style (invalid-name)

UC3MMoney\TransactionManager.py:44:17: W1514: Using open without explicitly specifying an encoding (unspecified-encoding)
UC3MMoney\TransactionManager.py:45:16: C0103: Variable name "DATA" doesn't conform to snake_case naming style (invalid-name)
UC3MMoney\TransactionManager.py:53:12: C0103: Variable name "T_FROM" doesn't conform to snake_case naming style (invalid-name)
UC3MMoney\TransactionManager.py:54:12: C0103: Variable name "T_TO" doesn't conform to snake_case naming style (invalid-name)
UC3MMoney\TransactionManager.py:55:12: C0103: Variable name "TO_NAME" doesn't conform to snake_case naming style (invalid-name)
UC3MMoney\TransactionManager.py:59:8: R1720: Unnecessary "else" after "raise", remove the "else" and de-indent the code inside it (no-else-raise)
UC3MMoney\TransactionManager.py:59:15: E1101: Instance of 'TransactionManager' has no 'ValidateIBAN' member (no-member)
UC3MMoney\TransactionManager.py:62:19: E1101: Instance of 'TransactionManager' has no 'ValidateIBAN' member (no-member)
***** Module UC3MMoney.TransactionRequest
UC3MMoney\TransactionRequest.py:1:0: C0114: Missing module docstring (missing-module-docstring)
UC3MMoney\TransactionRequest.py:1:0: C0103: Module name "TransactionRequest" doesn't conform to snake_case naming style (invalid-name)
UC3MMoney\TransactionRequest.py:6:0: C0115: Missing class docstring (missing-class-docstring)
UC3MMoney\TransactionRequest.py:8:8: C0103: Attribute name "__receptorNaMe" doesn't conform to snake_case naming style (invalid-name)
UC3MMoney\TransactionRequest.py:9:8: C0103: Attribute name "__IBANFrOm" doesn't conform to snake_case naming style (invalid-name)
UC3MMoney\TransactionRequest.py:10:8: C0103: Attribute name "__IBANtO" doesn't conform to snake_case naming style (invalid-name)
UC3MMoney\TransactionRequest.py:12:8: C0103: Attribute name "__timeStamp" doesn't conform to snake_case naming style (invalid-name)

UC3MMoney\TransactionRequest.py:7:23: C0103: Argument name "IBANFROM" doesn't conform to snake_case naming style (invalid-name)
UC3MMoney\TransactionRequest.py:7:32: C0103: Argument name "IBANtO" doesn't conform to snake_case naming style (invalid-name)
UC3MMoney\TransactionRequest.py:7:40: C0103: Argument name "RECEpTOrName" doesn't conform to snake_case naming style (invalid-name)
UC3MMoney\TransactionRequest.py:18:4: C0116: Missing function or method docstring (missing-function-docstring)
UC3MMoney\TransactionRequest.py:18:4: C0103: Attribute name "receptorNaMe" doesn't conform to snake_case naming style (invalid-name)
UC3MMoney\TransactionRequest.py:21:4: C0103: Attribute name "receptorNaMe" doesn't conform to snake_case naming style (invalid-name)
UC3MMoney\TransactionRequest.py:25:4: C0116: Missing function or method docstring (missing-function-docstring)
UC3MMoney\TransactionRequest.py:25:4: C0103: Attribute name "IBAN_FROM" doesn't conform to snake_case naming style (invalid-name)
UC3MMoney\TransactionRequest.py:28:4: C0103: Attribute name "IBAN_FROM" doesn't conform to snake_case naming style (invalid-name)
UC3MMoney\TransactionRequest.py:32:4: C0116: Missing function or method docstring (missing-function-docstring)
UC3MMoney\TransactionRequest.py:32:4: C0103: Attribute name "IBAN_TO" doesn't conform to snake_case naming style (invalid-name)
UC3MMoney\TransactionRequest.py:35:4: C0103: Attribute name "IBAN_TO" doesn't conform to snake_case naming style (invalid-name)
UC3MMoney\TransactionRequest.py:12:8: W0238: Unused private member 'TransactionRequest.__timeStamp' (unused-private-member)

-----
Your code has been rated at 3.47/10
```

→ Errores del main.py:

```

***** Module main
main.py:44:0: C0304: Final newline missing (missing-final-newline)
main.py:1:0: C0114: Missing module docstring (missing-module-docstring)
main.py:5:0: C0103: Constant name "letters" doesn't conform to UPPER_CASE naming style (invalid-name)
main.py:6:0: C0103: Constant name "shift" doesn't conform to UPPER_CASE naming style (invalid-name)
main.py:9:0: C0116: Missing function or method docstring (missing-function-docstring)
main.py:9:0: C0103: Function name "Encode" doesn't conform to snake_case naming style (invalid-name)
main.py:19:0: C0116: Missing function or method docstring (missing-function-docstring)
main.py:19:0: C0103: Function name "Decode" doesn't conform to snake_case naming style (invalid-name)
main.py:30:0: C0116: Missing function or method docstring (missing-function-docstring)
main.py:30:0: C0103: Function name "Encode" doesn't conform to snake_case naming style (invalid-name)
main.py:19:0: C0116: Missing function or method docstring (missing-function-docstring)
main.py:19:0: C0103: Function name "Decode" doesn't conform to snake_case naming style (invalid-name)
main.py:30:0: C0116: Missing function or method docstring (missing-function-docstring)
main.py:34:4: C0103: Variable name "strRes" doesn't conform to snake_case naming style (invalid-name)
main.py:34:13: C2801: Unnecessarily calls dunder method __str__. Use str built-in function. (unnecessary-dunder-call)
main.py:36:4: C0103: Variable name "EncodeRes" doesn't conform to snake_case naming style (invalid-name)
main.py:38:4: C0103: Variable name "DecodeRes" doesn't conform to snake_case naming style (invalid-name)
main.py:2:0: C0411: standard import "string" should be placed before first party import "UC3MMoney.TransactionManager" (wrong-import-order)

-----
Your code has been rated at 5.76/10 (previous run: 8.48/10, -2.73)

```

- El resultado de pasar el scan de PyLint con las reglas cambiadas, sin modificar el código:

→ Errores de las carpetas incluidas en UC3MMoney:

```

***** Module UC3MMoney
UC3MMoney\__init__.py:3:0: C0304: Final newline missing (missing-final-newline)
***** Module UC3MMoney.TransactionManager
UC3MMoney\TransactionManager.py:44:17: W1514: Using open without explicitly specifying an encoding (unspecified-encoding)
UC3MMoney\TransactionManager.py:45:16: C0103: Variable name "DATA" doesn't conform to '[a-z][a-zA-Z0-9_]{0,30}$' pattern ('[a-z][a-zA-Z0-9_]{0,30}$' pattern) (invalid-name)
UC3MMoney\TransactionManager.py:53:12: C0103: Variable name "T_FROM" doesn't conform to '[a-z][a-zA-Z0-9_]{0,30}$' pattern ('[a-z][a-zA-Z0-9_]{0,30}$' pattern) (invalid-name)
UC3MMoney\TransactionManager.py:54:12: C0103: Variable name "T_TO" doesn't conform to '[a-z][a-zA-Z0-9_]{0,30}$' pattern ('[a-z][a-zA-Z0-9_]{0,30}$' pattern) (invalid-name)
UC3MMoney\TransactionManager.py:55:12: C0103: Variable name "TO_NAME" doesn't conform to '[a-z][a-zA-Z0-9_]{0,30}$' pattern ('[a-z][a-zA-Z0-9_]{0,30}$' pattern) (invalid-name)
UC3MMoney\TransactionManager.py:59:8: R1720: Unnecessary "else" after "raise", remove the "else" and de-indent the code inside it (no-else-raise)
UC3MMoney\TransactionManager.py:59:15: E1101: Instance of 'TransactionManager' has no 'ValidateIBAN' member (no-member)
UC3MMoney\TransactionManager.py:62:19: E1101: Instance of 'TransactionManager' has no 'ValidateIBAN' member (no-member)
***** Module UC3MMoney.TransactionRequest
UC3MMoney\TransactionRequest.py:7:23: C0103: Argument name "IbAnFROM" doesn't conform to '[a-z][a-zA-Z0-9_]{1,20}$' pattern ('[a-z][a-zA-Z0-9_]{1,20}$' pattern) (invalid-name)
UC3MMoney\TransactionRequest.py:7:40: C0103: Argument name "RECEpTorName" doesn't conform to '[a-z][a-zA-Z0-9_]{1,20}$' pattern ('[a-z][a-zA-Z0-9_]{1,20}$' pattern) (invalid-name)
UC3MMoney\TransactionRequest.py:12:8: W0238: Unused private member 'TransactionRequest.__timeStamp' (unused-private-member)

```

Your code has been rated at 7.33/10 (previous run: 3.47/10, +3.87)

→ Errores del main.py:

```

***** Module main
main.py:44:0: C0304: Final newline missing (missing-final-newline)
main.py:5:0: C0103: Constant name "letters" doesn't conform to UPPER_CASE naming style ('([^\W\da-z][^\Wa-z]*|_.*_)$' pattern) (invalid-name)
main.py:6:0: C0103: Constant name "shift" doesn't conform to UPPER_CASE naming style ('([^\W\da-z][^\Wa-z]*|_.*_)$' pattern) (invalid-name)
main.py:34:13: C2801: Unnecessarily calls dunder method __str__. Use str built-in function. (unnecessary-dunder-call)
main.py:36:4: C0103: Variable name "EncodeRes" doesn't conform to '[a-z][a-zA-Z0-9_]{0,30}$' pattern ('[a-z][a-zA-Z0-9_]{0,30}$' pattern) (invalid-name)
main.py:38:4: C0103: Variable name "DecodeRes" doesn't conform to '[a-z][a-zA-Z0-9_]{0,30}$' pattern ('[a-z][a-zA-Z0-9_]{0,30}$' pattern) (invalid-name)
main.py:2:0: C0411: standard import "string" should be placed before first party import "UC3MMoney.TransactionManager" (wrong-import-order)

```

Your code has been rated at 7.88/10 (previous run: 5.76/10, +2.12)

- Por último, los errores restantes una vez corregido el código para que se ajuste a la nueva normativa:
 - Errores de las carpetas incluidas en UC3MMoney:

```
-----  
Your code has been rated at 10.00/10 (previous run: 7.33/10, +2.67)
```

→ Errores del main.py:

```
-----  
Your code has been rated at 10.00/10 (previous run: 9.70/10, +0.30)
```

Podemos observar que hemos corregido todos los errores en el main y en los archivos de UC3MMoney.