



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**

Alumnos:

Alejandra de los Santos **100495843**
100495843@alumnos.uc3m.es

Ana Grima Vázquez de Prada **100495758**
100495758@alumnos.uc3m.es

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-zA-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       |=      |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-booleanness-not-comparison-to-string,
use-implicit-booleanness-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 "RECEpToName" 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:19:0: 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: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: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.