



Ejercicios

"Conversor Decimal a Maya"



*Departamento de Ciencias
de la Computación*

Asignatura:

"Lenguajes Inteligentes"

Profesor:

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Fecha:

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Alumnos:

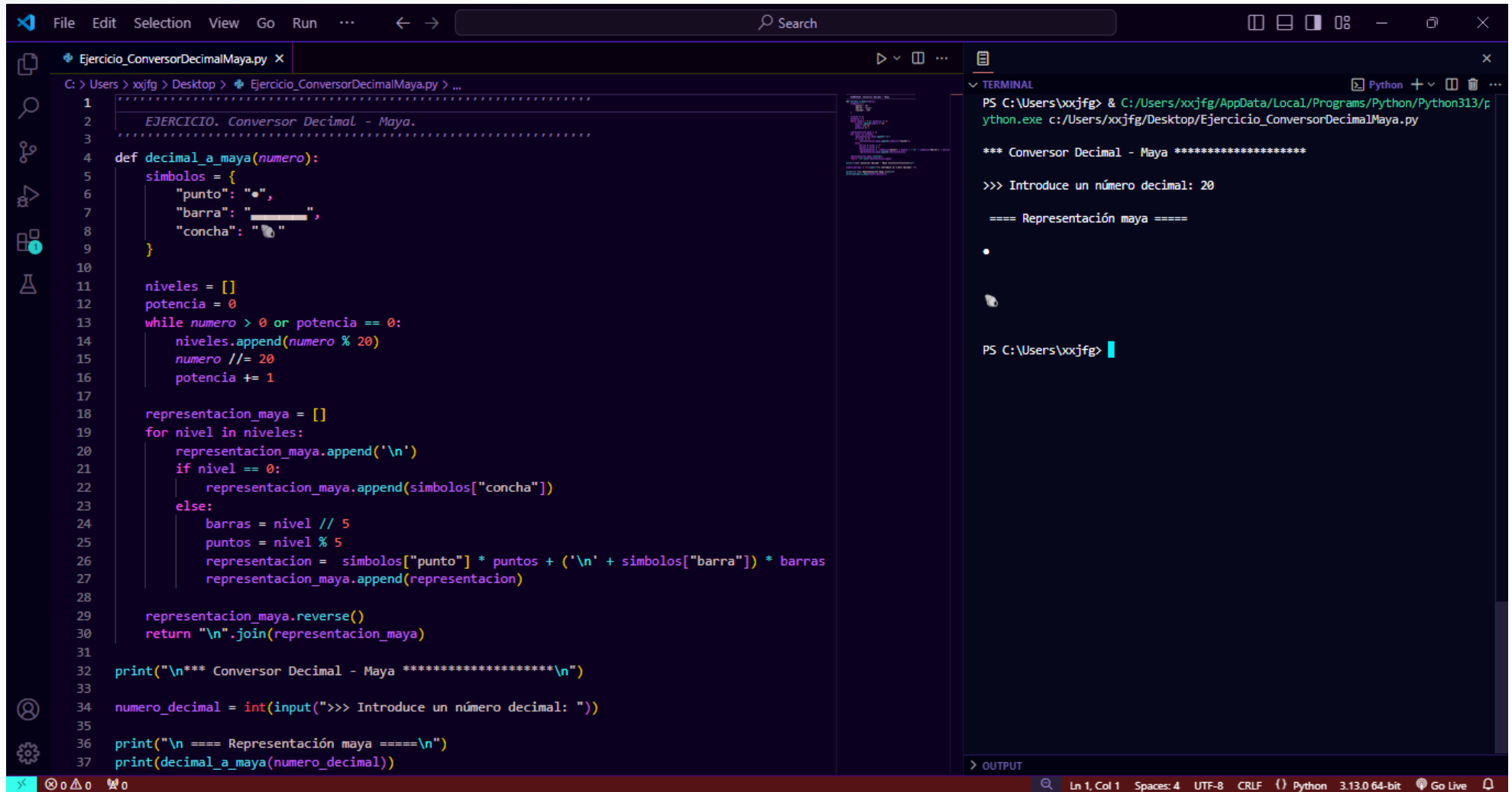
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**Ingeniería en Computación
Inteligente**

5to Semestre

Evidencias



```
File Edit Selection View Go Run ... Search

Ejercicio_ConversorDecimalMaya.py X

C: > Users > xxjfg > Desktop > Ejercicio_ConversorDecimalMaya.py > ...

1  EJERCICIO. Conversor Decimal - Maya.
2  .....
3  .....
4  def decimal_a_maya(numero):
5      simbolos = {
6          "punto": "•",
7          "barra": "—",
8          "concha": "☐"
9      }
10
11     niveles = []
12     potencia = 0
13     while numero > 0 or potencia == 0:
14         niveles.append(numero % 20)
15         numero //= 20
16         potencia += 1
17
18     representacion_maya = []
19     for nivel in niveles:
20         representacion_maya.append('\n')
21         if nivel == 0:
22             representacion_maya.append(simbolos["concha"])
23         else:
24             barras = nivel // 5
25             puntos = nivel % 5
26             representacion = simbolos["punto"] * puntos + ('\n' + simbolos["barra"]) * barras
27             representacion_maya.append(representacion)
28
29     representacion_maya.reverse()
30     return "\n".join(representacion_maya)
31
32     print("\n*** Conversor Decimal - Maya *****\n")
33
34     numero_decimal = int(input(">>> Introduce un número decimal: "))
35
36     print("\n==== Representación maya =====\n")
37     print(decimal_a_maya(numero_decimal))

TERMINAL Python + v ...
PS C:\Users\xxjfg> & C:/Users/xxjfg/AppData/Local/Programs/Python/Python313/p
ython.exe c:/Users/xxjfg/Desktop/Ejercicio_ConversorDecimalMaya.py

*** Conversor Decimal - Maya *****

>>> Introduce un número decimal: 20

==== Representación maya ====

•

PS C:\Users\xxjfg>

> OUTPUT Ln 1, Col 1 Spaces: 4 UTF-8 CRLF Python 3.13.0 64-bit Go Live
```

The screenshot displays a Python IDE with a file named `Ejercicio_ConversorDecimalMaya.py`. The code defines a function `decimal_a_maya(numero)` that converts a decimal number into its Mayan numeral representation. The conversion process involves dividing the number by powers of 20 (the base of the Mayan numeral system) and using specific symbols for digits 0-19.

```
1 .....  
2 EJERCICIO. Conversor Decimal - Maya.  
3 .....  
4 def decimal_a_maya(numero):  
5     simbolos = {  
6         "punto": ".",  
7         "barra": "—",  
8         "concha": "🐚"  
9     }  
10  
11     niveles = []  
12     potencia = 0  
13     while numero > 0 or potencia == 0:  
14         niveles.append(numero % 20)  
15         numero //= 20  
16         potencia += 1  
17  
18     representacion_maya = []  
19     for nivel in niveles:  
20         representacion_maya.append('\n')  
21         if nivel == 0:  
22             representacion_maya.append(simbolos["concha"])  
23         else:  
24             barras = nivel // 5  
25             puntos = nivel % 5  
26             representacion = simbolos["punto"] * puntos + ('\n' + simbolos["barra"]) * barras  
27             representacion_maya.append(representacion)  
28  
29     representacion_maya.reverse()  
30     return "\n".join(representacion_maya)  
31  
32 print("\n*** Conversor Decimal - Maya *****\n")  
33  
34 numero_decimal = int(input(">>> Introduce un número decimal: "))  
35  
36 print("\n==== Representación maya =====\n")  
37 print(decimal_a_maya(numero_decimal))
```

The terminal window shows the execution of the script:

```
PS C:\Users\xxjfg> & C:/Users/xxjfg/AppData/Local/Programs/Python/Python313/python.exe c:/Users/xxjfg/Desktop/Ejercicio_ConversorDecimalMaya.py  
  
*** Conversor Decimal - Maya *****  
  
>>> Introduce un número decimal: 7214  
  
==== Representación maya ====
```

The image shows a Visual Studio Code editor window with a Python file named 'Ejercicio_ConversorDecimalMaya.py'. The script defines a function 'decimal_a_maya' that takes a decimal number and returns its representation in Maya script. The representation uses symbols: a dot for 'punto', a horizontal line for 'barra', and a conch shell for 'concha'. The number 396 is converted to a Maya script representation consisting of three levels: the top level has one concha and one barra; the middle level has three barras; and the bottom level has one punto. The terminal window on the right shows the command prompt running the script, prompting the user to enter a decimal number (396) and displaying the resulting Maya script representation.

The image shows a Visual Studio Code editor with a Python file named `Ejercicio_ConversorDecimalMaya.py` open. The script is designed to convert a decimal number into Mayan numerals. It uses a list of symbols: a dot for 'punto', a horizontal bar for 'barra', and a conch shell for 'concha'. The conversion process involves dividing the number by 20 to determine the number of bars and dots at each level, then constructing the Mayan numeral string from these components. The script prompts the user to enter a decimal number and prints the resulting Mayan numeral representation.

```
1 .....  
2 EJERCICIO. Conversor Decimal - Maya.  
3 .....  
4 def decimal_a_maya(numero):  
5     simbolos = {  
6         "punto": "•",  
7         "barra": "—",  
8         "concha": "🐚"  
9     }  
10  
11     niveles = []  
12     potencia = 0  
13     while numero > 0 or potencia == 0:  
14         niveles.append(numero % 20)  
15         numero //= 20  
16         potencia += 1  
17  
18     representacion_maya = []  
19     for nivel in niveles:  
20         representacion_maya.append('\n')  
21         if nivel == 0:  
22             representacion_maya.append(simbolos["concha"])  
23         else:  
24             barras = nivel // 5  
25             puntos = nivel % 5  
26             representacion = simbolos["punto"] * puntos + ('\n' + simbolos["barra"]) * barras  
27             representacion_maya.append(representacion)  
28  
29     representacion_maya.reverse()  
30     return "\n".join(representacion_maya)  
31  
32 print("\n*** Conversor Decimal - Maya *****\n")  
33  
34 numero_decimal = int(input(">>> Introduce un número decimal: "))  
35  
36 print("\n==== Representación maya =====\n")  
37 print(decimal_a_maya(numero_decimal))
```

The terminal window on the right shows the execution of the script. It prompts the user to enter a decimal number, and the output displays the Mayan numeral representation for the input 6767.

```
PS C:\Users\xxjfg> & C:/Users/xxjfg/AppData/Local/Programs/Python/Python313/python.exe c:/Users/xxjfg/Desktop/Ejercicio_ConversorDecimalMaya.py  
  
*** Conversor Decimal - Maya *****  
  
>>> Introduce un número decimal: 6767  
  
==== Representación maya =====  
  
•  
—  
—  
  
...  
—  
—  
  
..  
—  
  
PS C:\Users\xxjfg>
```