

09/10/2022

# Laboratorio #2

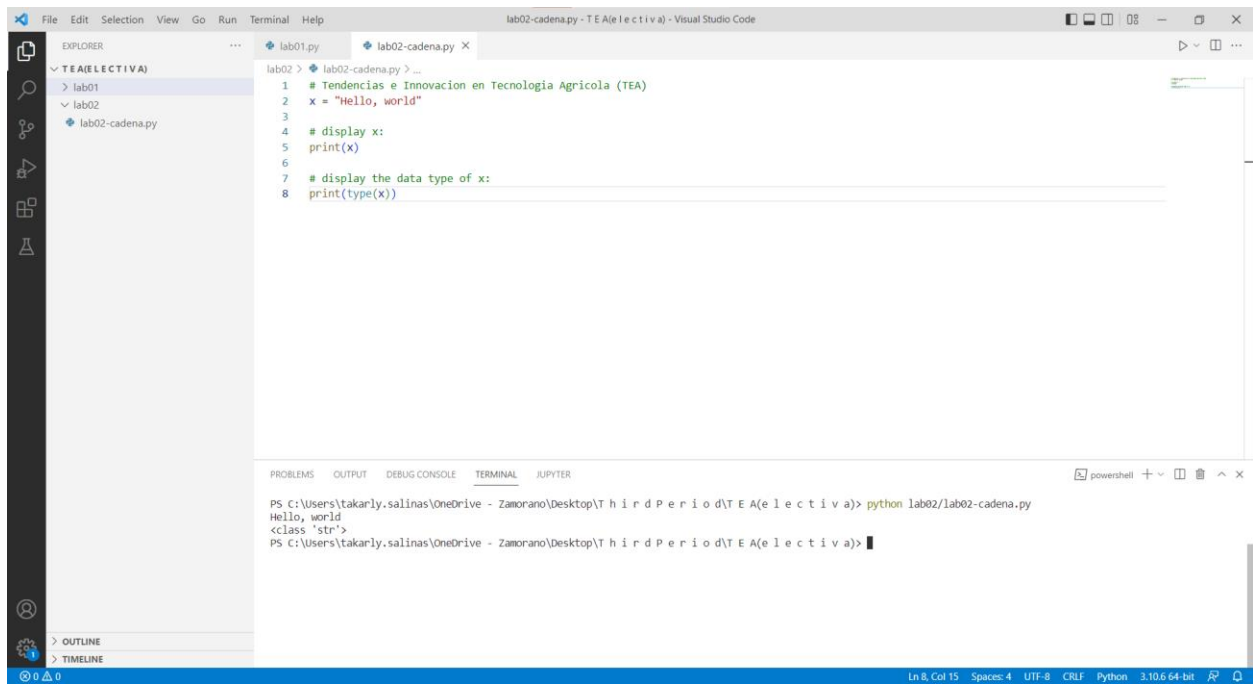
Laboratorio y Conjunto de Problemas: Variables, expresiones, y sentencias  
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Dirección de Repositorio: <https://github.com/salinastakarly9/TEA/tree/master/lab02>

## 1.- Trabajando con tipos de datos en Python



The screenshot shows the Visual Studio Code interface with a file explorer on the left containing a folder named 'TEA(ELECTIVA)' with subfolders 'lab01' and 'lab02'. Inside 'lab02', there is a file named 'lab02-cadena.py'. The main editor window displays the code for 'lab02-cadena.py':

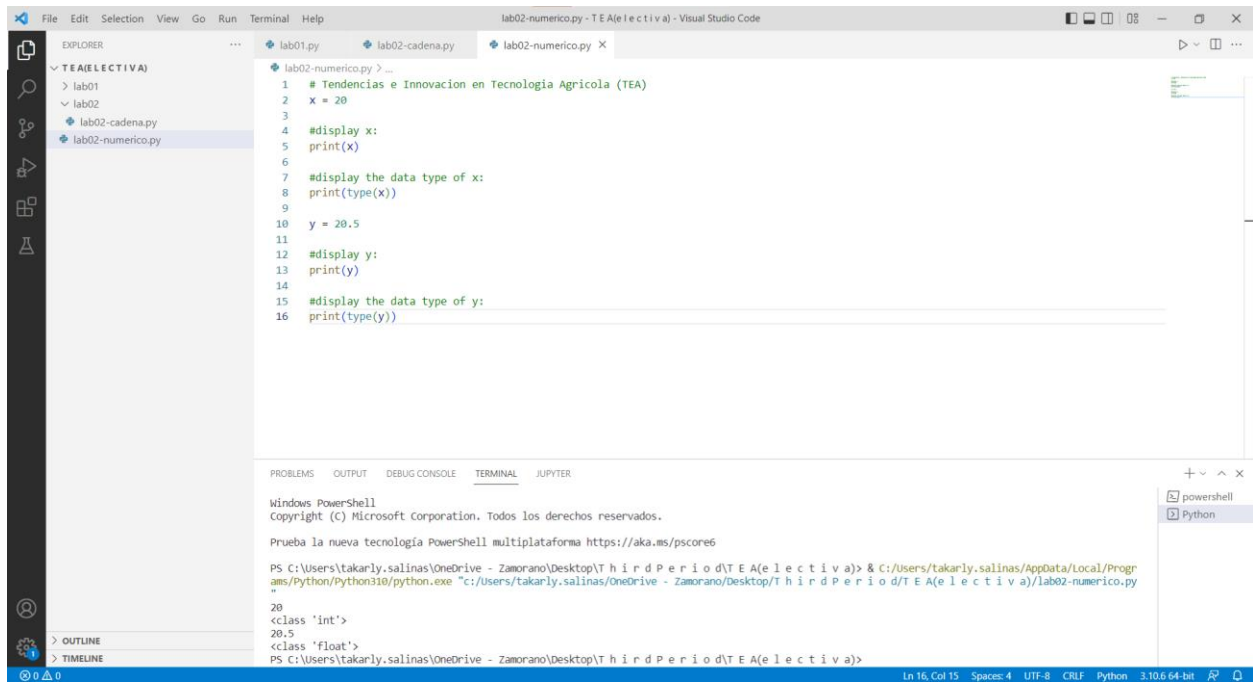
```
1 # Tendencias e Innovacion en Tecnologia Agricola (TEA)
2 x = "Hello, world"
3
4 # display x:
5 print(x)
6
7 # display the data type of x:
8 print(type(x))
```

The bottom panel shows the 'TERMINAL' output, which is the result of running the script in a PowerShell terminal:

```
PS C:\Users\takarly.salinas\OneDrive - Zamorano\Desktop\T h i r d P e r i o d\T E A ( e l e c t i v a )> python lab02/lab02-cadena.py
Hello, world
<class 'str'>
PS C:\Users\takarly.salinas\OneDrive - Zamorano\Desktop\T h i r d P e r i o d\T E A ( e l e c t i v a )>
```

- ¿Qué tipo de datos sale en la consola?
  - Se utiliza el dato <<class 'str'>

## 2.- Numérico



The screenshot shows the Visual Studio Code interface with a file explorer on the left containing a folder named 'TEA(ELECTIVA)' with subfolders 'lab01' and 'lab02'. Inside 'lab02', there are two files: 'lab02-cadena.py' and 'lab02-numerico.py'. The main editor window displays the code for 'lab02-numerico.py':

```
1 # Tendencias e Innovacion en Tecnologia Agricola (TEA)
2 x = 20
3
4 #display x:
5 print(x)
6
7 #display the data type of x:
8 print(type(x))
9
10 y = 20.5
11
12 #display y:
13 print(y)
14
15 #display the data type of y:
16 print(type(y))
```

The bottom panel shows the 'TERMINAL' output, which is the result of running the script in a PowerShell terminal:

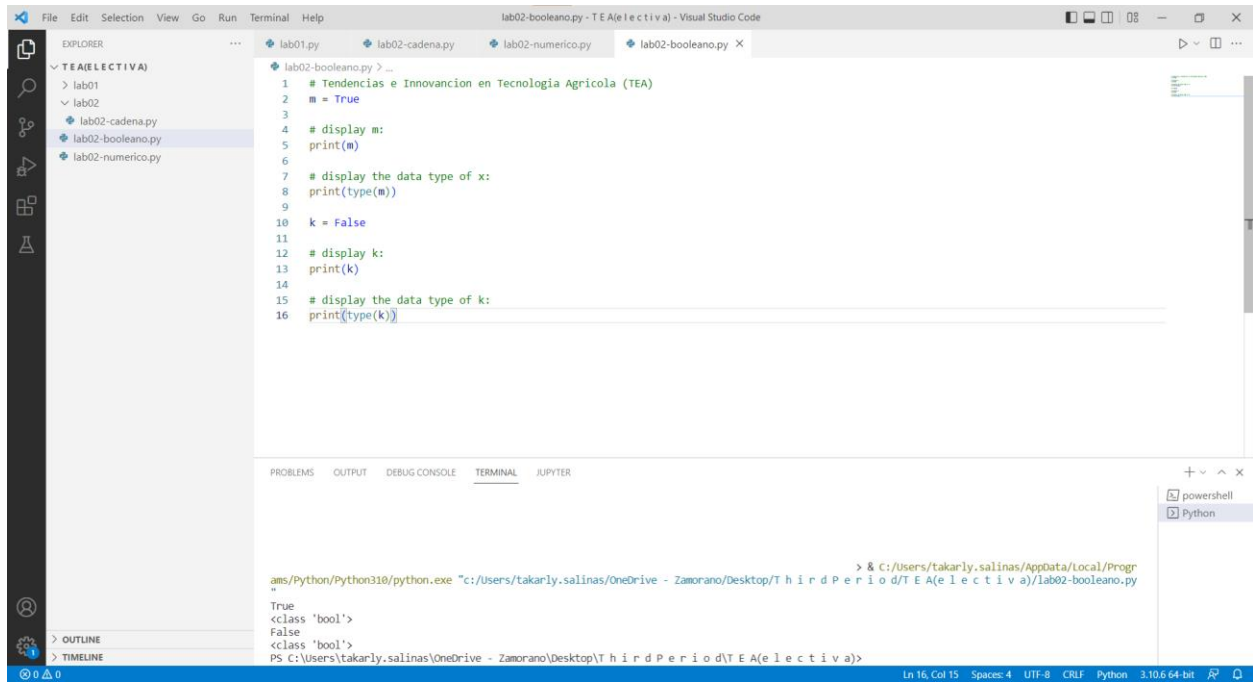
```
Windows PowerShell
Copyright (c) Microsoft Corporation. Todos los derechos reservados.

Prueba la nueva tecnología PowerShell multiplataforma https://aka.ms/pscore6

PS C:\Users\takarly.salinas\OneDrive - Zamorano\Desktop\T h i r d P e r i o d\T E A ( e l e c t i v a )> & C:\Users\takarly.salinas\AppData\Local\Programs\Python\Python310\python.exe "C:\Users\takarly.salinas\OneDrive - Zamorano\Desktop\T h i r d P e r i o d\T E A ( e l e c t i v a )\lab02-numerico.py"
20
<class 'int'>
20.5
<class 'float'>
PS C:\Users\takarly.salinas\OneDrive - Zamorano\Desktop\T h i r d P e r i o d\T E A ( e l e c t i v a )>
```

- **¿Qué tipos de datos salen en la consola (para  $x$  y para  $y$ )?**
  - Para  $x$  se utiliza <<class 'int'>
  - Para  $y$  se utiliza <<class 'float'>

### **3.- Booleanos**



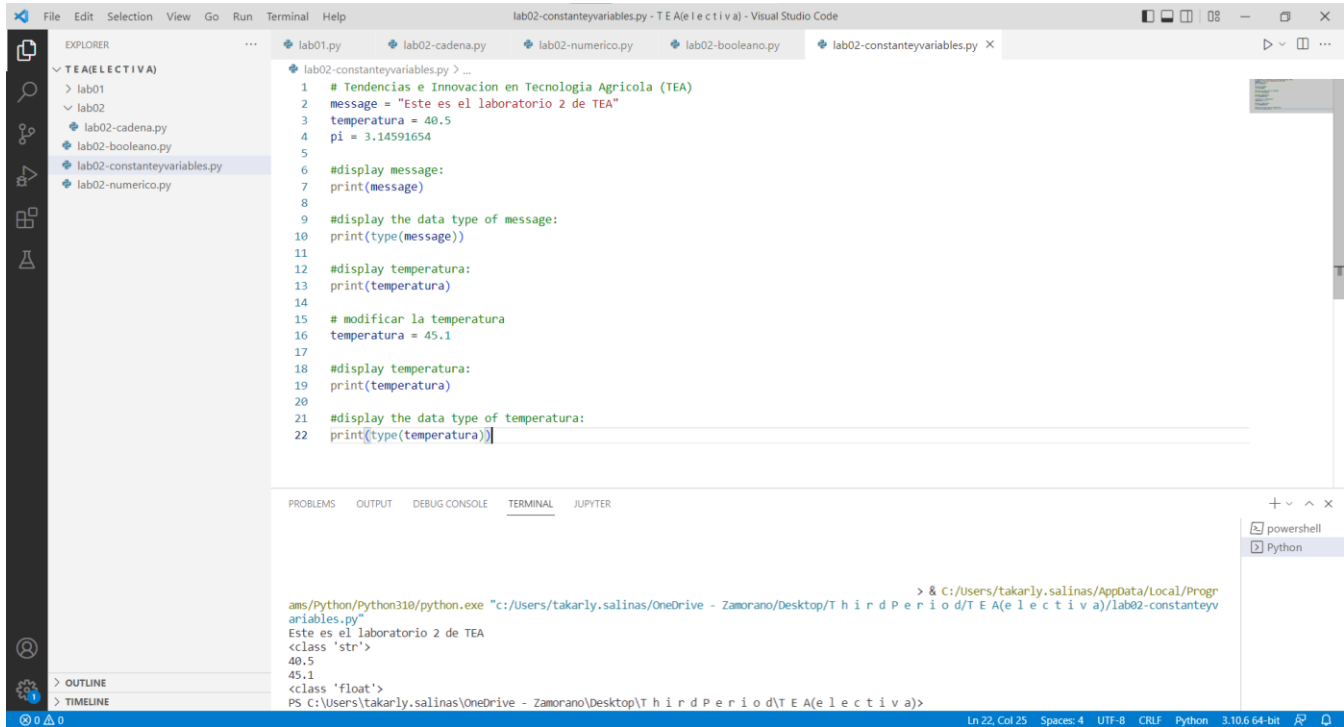
The screenshot shows the Visual Studio Code interface with a Python file named 'lab02-booleano.py' open. The code defines a variable 'm' as True and a variable 'k' as False, then prints their values and types. The terminal at the bottom shows the command to run the script and the resulting output, which confirms that both variables are of type 'bool'.

```
lab02-booleano.py - T E A ( e l e c t i v a ) - Visual Studio Code
EXPLORER
  TEA(ELECTIVA)
    lab01
    lab02
      lab02-cadena.py
      lab02-booleano.py
      lab02-numerico.py
lab02-booleano.py
1 # Tendencias e Innovacion en Tecnologia Agricola (TEA)
2 m = True
3
4 # display m:
5 print(m)
6
7 # display the data type of x:
8 print(type(m))
9
10 k = False
11
12 # display k:
13 print(k)
14
15 # display the data type of k:
16 print(type(k))

TERMINAL
> & C:/Users/takarly.salinas/AppData/Local/Programs/Python/Python310/python.exe "c:/Users/takarly.salinas/OneDrive - Zamorano/Desktop/T h i r d P e r i o d / T E A ( e l e c t i v a ) / l a b 0 2 - b o o l e a n o . p y"
True
<class 'bool'>
False
<class 'bool'>
PS C:/Users/takarly.salinas/OneDrive - Zamorano/Desktop/T h i r d P e r i o d / T E A ( e l e c t i v a ) >
```

- **¿Qué tipos de datos sale en la consola (para  $m$  y para  $k$ )?**
  - En ambas se utiliza el dato <<class 'bool'>

## 4.- Constantes y Variables



The screenshot shows the Visual Studio Code interface with a Python file named `lab02-constantevariables.py` open. The Explorer sidebar on the left shows a project structure with a folder `TEA(ELECTIVA)` containing subfolders `lab01` and `lab02`. The `lab02` folder contains files `lab02-cadena.py`, `lab02-booleano.py`, `lab02-constantevariables.py`, and `lab02-numerico.py`. The active file `lab02-constantevariables.py` contains the following Python code:

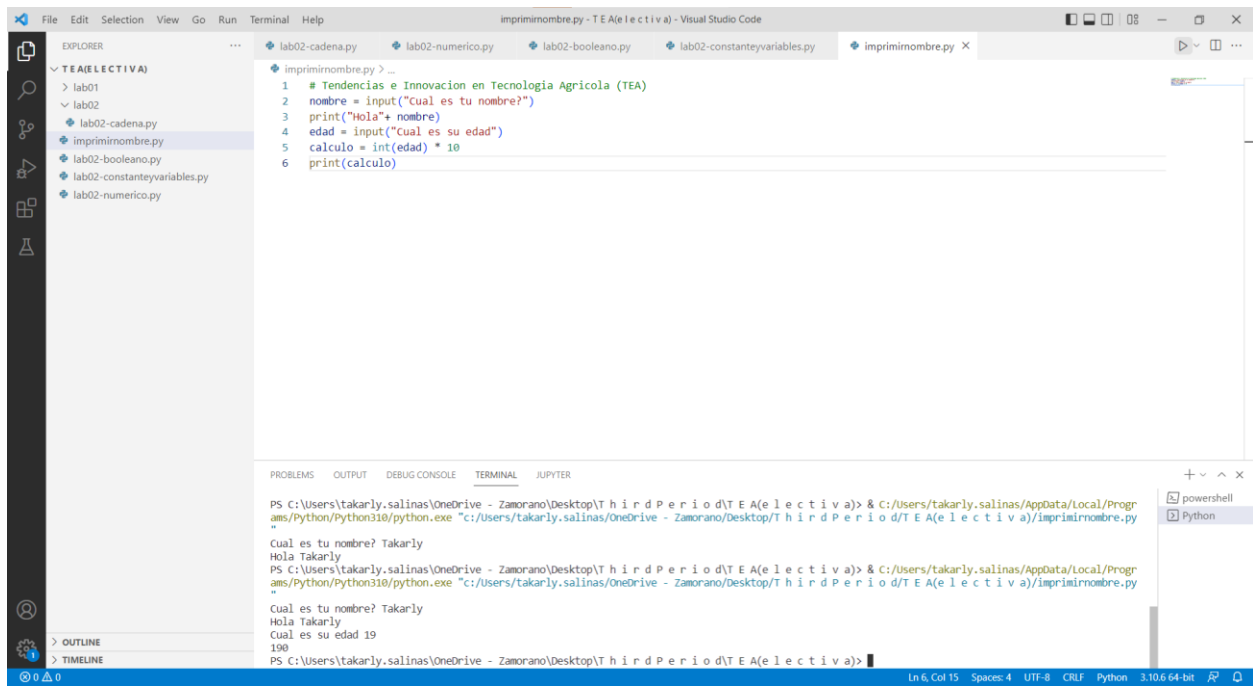
```
1 # Tendencias e Innovacion en Tecnologia Agricola (TEA)
2 message = "Este es el laboratorio 2 de TEA"
3 temperatura = 40.5
4 pi = 3.14591654
5
6 #display message:
7 print(message)
8
9 #display the data type of message:
10 print(type(message))
11
12 #display temperatura:
13 print(temperatura)
14
15 # modificar la temperatura
16 temperatura = 45.1
17
18 #display temperatura:
19 print(temperatura)
20
21 #display the data type of temperatura:
22 print(type(temperatura))
```

The TERMINAL panel at the bottom shows the command prompt output after running the script:

```
> & C:/Users/takarly.salinas/AppData/Local/Programs/Python/Python310/python.exe "c:/Users/takarly.salinas/OneDrive - Zamorano/Desktop/T hird P eriod/TE A(electiva)/lab02-constantevariables.py"
Este es el laboratorio 2 de TEA
<class 'str'>
40.5
45.1
<class 'float'>
PS C:/Users/takarly.salinas/OneDrive - Zamorano/Desktop/T hird P eriod/TE A(electiva)>
```

The status bar at the bottom indicates the current cursor position is at line 22, column 25, with 4 spaces, UTF-8 encoding, CRLF line endings, Python 3.10.6 64-bit interpreter.

## 5.- Programa que imprime nombre



The screenshot shows the Visual Studio Code interface with a Python file named `imprimnombre.py` open. The Explorer sidebar on the left shows the same project structure as the previous screenshot. The active file `imprimnombre.py` contains the following Python code:

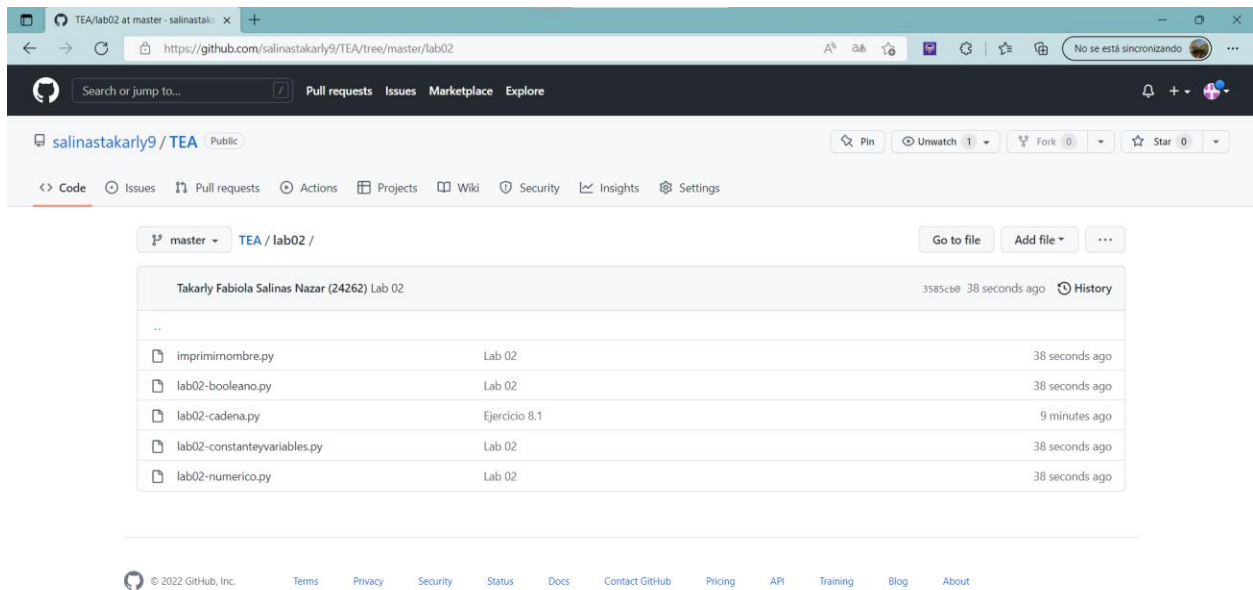
```
1 # Tendencias e Innovacion en Tecnologia Agricola (TEA)
2 nombre = input("Cual es tu nombre?")
3 print("Hola"+ nombre)
4 edad = input("Cual es su edad")
5 calculo = int(edad) * 10
6 print(calculo)
```

The TERMINAL panel at the bottom shows the command prompt output after running the script:

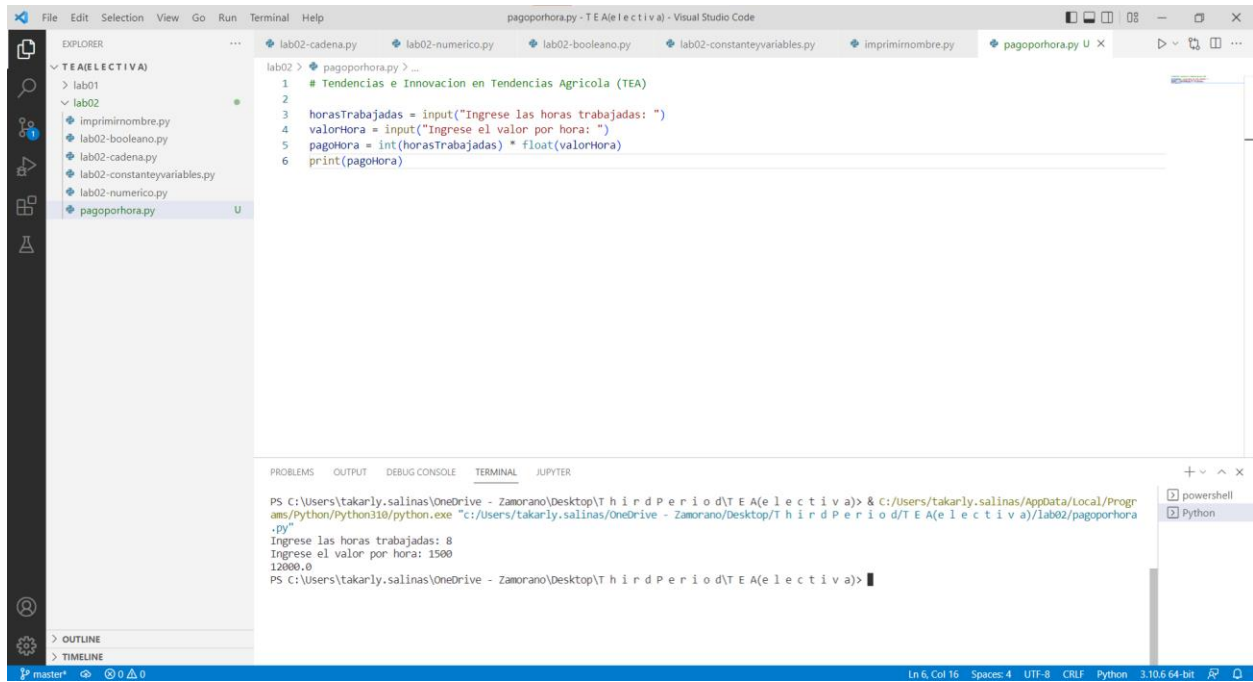
```
PS C:/Users/takarly.salinas/OneDrive - Zamorano/Desktop/T hird P eriod/TE A(electiva)> & C:/Users/takarly.salinas/AppData/Local/Programs/Python/Python310/python.exe "c:/Users/takarly.salinas/OneDrive - Zamorano/Desktop/T hird P eriod/TE A(electiva)/imprimnombre.py"
Cual es tu nombre? Takarly
Hola Takarly
PS C:/Users/takarly.salinas/OneDrive - Zamorano/Desktop/T hird P eriod/TE A(electiva)> & C:/Users/takarly.salinas/AppData/Local/Programs/Python/Python310/python.exe "c:/Users/takarly.salinas/OneDrive - Zamorano/Desktop/T hird P eriod/TE A(electiva)/imprimnombre.py"
Cual es tu nombre? Takarly
Hola Takarly
Cual es su edad 19
190
PS C:/Users/takarly.salinas/OneDrive - Zamorano/Desktop/T hird P eriod/TE A(electiva)>
```

The status bar at the bottom indicates the current cursor position is at line 6, column 15, with 4 spaces, UTF-8 encoding, CRLF line endings, Python 3.10.6 64-bit interpreter.

## 5.1 Subir a GitHub



## 6.- Calculo valor de pago por hora



## 6.1 Subir a GitHub

The screenshot shows the GitHub web interface for the repository 'salinastakary9/TEA'. The 'lab02' directory is selected, showing a list of files and their commit history. The files listed are:

File	Commit	Time
impriminombre.py	6b211f7	21 hours ago
lab02-booleano.py	6b211f7	21 hours ago
lab02-cadena.py	6b211f7	21 hours ago
lab02-constanteyvariables.py	6b211f7	21 hours ago
lab02-numerico.py	6b211f7	21 hours ago
pagoporhora.py	6b211f7	3 minutes ago

## 7.- Conversión de °C a °F

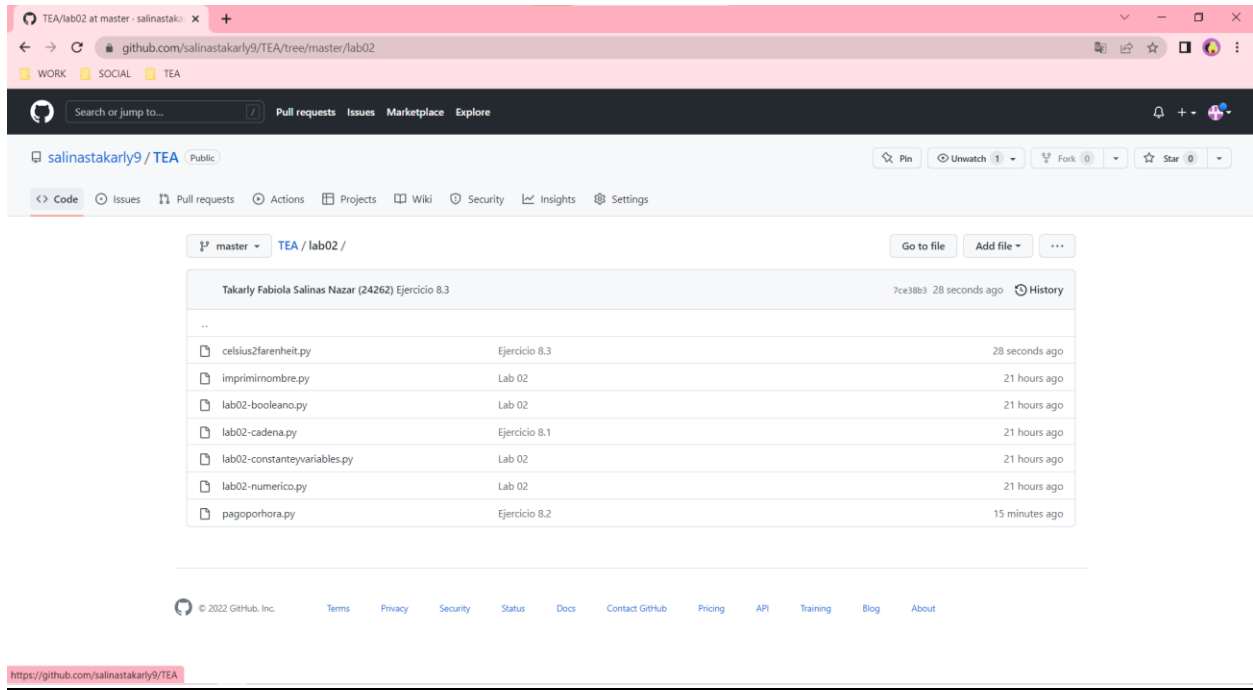
The screenshot shows a Visual Studio Code editor with a Python script named 'celsius2fahrenheit.py'. The script prompts the user to enter a temperature in Celsius and converts it to Fahrenheit. The terminal output shows the script being executed and the result.

```
lab02 > cd celsius2fahrenheit.py > ...
1 # Tendencias e Innovacion en Tecnologia Agricola (TEA)
2
3 celsius = input("Ingrese temperatura en grados Celsius: ")
4 fahrenheit = (float(celsius)) * 9/5 + 32
5 print("La temperatura en grados Fahrenheit es: ", fahrenheit)
```

Terminal Output:

```
Delta compression using up to 8 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 511 bytes | 102.00 KiB/s, done.
Total 4 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/salinastakary9/TEA.git
3585cb0..6b211f7 master -> master
PS C:\Users\takary.salinas\OneDrive - Zamorano\Desktop\T h i r d P e r i o d \T E A (e l e c t i v a)> & C:\Users\takary.salinas\AppData\Local\Programs\Python\Python310\python.exe "C:\Users\takary.salinas\OneDrive - Zamorano\Desktop\T h i r d P e r i o d \T E A (e l e c t i v a)\lab02\celsius2fahrenheit.py"
Ingrese temperatura en grados Celsius: 23
La temperatura en grados Fahrenheit es: 73.4
PS C:\Users\takary.salinas\OneDrive - Zamorano\Desktop\T h i r d P e r i o d \T E A (e l e c t i v a)>
```

## 7.1 Subir a GitHub



The screenshot shows a web browser window displaying a GitHub repository page. The browser's address bar shows the URL `github.com/salinastakary9/TEA/tree/master/lab02`. The repository name is `salinastakary9/TEA`, which is public. The page shows the file list for the `lab02` directory. The files listed are:

File Name	Commit Hash	Time Ago
<code>celsius2fahrenheit.py</code>	7ce38b9	28 seconds ago
<code>impriminombre.py</code>		21 hours ago
<code>lab02-booleano.py</code>		21 hours ago
<code>lab02-cadena.py</code>		21 hours ago
<code>lab02-constanteyvariables.py</code>		21 hours ago
<code>lab02-numeric.py</code>		21 hours ago
<code>pagoporhora.py</code>		15 minutes ago

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