

The screenshot shows the Visual Studio Code (VS Code) interface with a dark theme. The left sidebar contains icons for file operations like Open, Save, Find, and Refresh. The Explorer sidebar shows a folder named 'LAB-1-SOROUSH-BASTANI [CODESPACES: PROBAB...' containing files: lab1a.py, lab1b.py, lab1c.py, lab1d.py, lab1e.py, and README.md. The main editor area displays a Python script (lab1a.py) with code demonstrating variable creation, type checking, and dynamic typing. The terminal at the bottom shows the execution of the script and its output.

lab1a.py M X

lab1b.py M

lab1c.py M

lab1d.py M

lab1e.py M

README.md

[Preview] README.md

lab1a.py > ...

```
12
13 # TO DO 1: Creating and using variables
14 # create a variable called message.
15 # Set the variable to equal to "Welcome to SRT111".
16 # Print the variable message using print() statement.
17 message="Welcome to SRT111"
18 print(message)
19
20 # TO DO 2: Checking the type of a variable
21 # Use the builtin type() function and print the type of this variable.
22 print(type(message))
23
24 # TO DO 3: Dynamic Typing:
25 # Create a varibel called `x` and assign it the value 10, then print the type of this variable.
26 x=10
27 print(type(x))
28
29 # TO DO 4: Dynamic Typing:
30 # Now reassing a new value to the variable `x` , this value should be a string, e.g "hello", check the type of the variable `x` again.
31 # What did you observe?
32 x="hello"
33 print(type(x))
34
35 #I noticed the type changed from Integer to string
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS 4

```
/home/codespace/.python/current/bin/python /workspaces/lab-1-soroush-bastani/lab1a.py
● @Soroush-Bastani ➔/workspaces/lab-1-soroush-bastani (main) $ /home/codespace/.python/current/bin/python /workspaces/lab-1-soroush-bastani/lab1a.py
Welcome to SRT111
<class 'str'>
<class 'int'>
<class 'str'>
○ @Soroush-Bastani ➔/workspaces/lab-1-soroush-bastani (main) $
```

> OUTLINE

> TIMELINE

x Codespaces: probable telegram ⌂ main\* ⌂ ⌂ 0 ⌂ 0 ⌂ 4

The screenshot shows a Microsoft Visual Studio Code (VS Code) interface. The left sidebar contains icons for Explorer, Search, Problems, Outline, and Timeline. The Explorer view shows a folder named 'LAB-1-SOROUSH-BASTANI [CODESPACES: PROBAB...' containing files: lab1a.py, lab1b.py (selected), lab1c.py, lab1d.py, lab1e.py, and README.md. The main editor area displays a Python script (lab1b.py) with code for performing arithmetic operations on user input. The terminal at the bottom shows the execution of the script and its output.

lab1b.py M

lab1b.py > ...

```
13 | 
14 |     num1=(float(input("enter your number for num1: ")))
15 |     num2=(float(input("enter your number for num2: ")))
16 | 
17 | 
18 | # TO-DO 2:
19 | # Perform all arithmetic opeartions as outlined in the description in README.md file, and print in the required format.
20 | 
21 | # Addition
22 | print(num1 + num2)
23 | # Subtraction
24 | print(num1 - num2)
25 | # Multiplication
26 | print(num1 * num2)
27 | # Power
28 | print(num1 ** num2)
29 | # Division
30 | print(num1 / num2)
31 | # Floor Division
32 | print(num1 // num2)
33 | # Modulo
34 | print(num1 % num2)
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS 4

@Soroush-Bastani → /workspaces/lab-1-soroush-bastani (main) \$ /home/codespace/.python/current/bin/python /workspaces/lab-1-soroush-bastani/lab1a.py

```
<class 'str'>
<class 'int'>
<class 'str'>
```

● @Soroush-Bastani → /workspaces/lab-1-soroush-bastani (main) \$ /home/codespace/.python/current/bin/python /workspaces/lab-1-soroush-bastani/lab1b.py

```
enter your number for num1: 6
enter your number for num2: 9
15.0
-3.0
54.0
10077696.0
0.6666666666666666
0.0
6.0
```

CodeSpaces: probable telegram

The screenshot shows a VS Code interface with the following details:

- Explorer View:** Shows a folder named "LAB-1-SOROUSH-BASTANI [CODESPACES: PROBAB...]" containing files: lab1a.py, lab1b.py, lab1c.py (selected), lab1d.py, lab1e.py, and README.md.
- Code Editor:** Displays the content of lab1c.py. The code is a Python script that calculates the area of a circle given its radius. It includes comments, imports the math module, and uses f-strings for output.
- Terminal:** Shows the execution of the script. The user runs the command `/home/codespace/.python/current/bin/python /workspaces/lab-1-soroush-bastani/lab1c.py`. The terminal then prompts for two numbers (num1 and num2) and prints their square roots and the area of a circle with those radii.

```
lab1c.py > ...
1
2  # Add comments before you do anything else.
3
4  #!/usr/bin/env python3
5  # Author: Soroush Bastani
6  # Date: 2025-09-17
7  # Purpose: Use string methods and f-string formating.
8  # Usage: ./lab1c.py
9
10 #TO-DO 1:
11 # import math module.
12 # Create a variable called 'radius' and take its value from user.
13 # Convert the variable to float using float()
14 # use the constant pi from math module and compute the area of the circle using the variable 'radius'
15
16 import math
17 radius=float(input("input a number "))
18 area_of_circle=(math.pi * (radius ** 2))
19 print(area_of_circle)

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS 4
@Soroush-Bastani → /workspaces/lab-1-soroush-bastani (main) $ /home/codespace/.python/current/bin/python /workspaces/lab-1-soroush-bastani/lab1a.py
● @Soroush-Bastani → /workspaces/lab-1-soroush-bastani (main) $ /home/codespace/.python/current/bin/python /workspaces/lab-1-soroush-bastani/lab1b.py
enter your number for num1: 6
enter your number for num2: 9
15.0
-3.0
54.0
10077696.0
0.6666666666666666
0.0
6.0
● @Soroush-Bastani → /workspaces/lab-1-soroush-bastani (main) $ /home/codespace/.python/current/bin/python /workspaces/lab-1-soroush-bastani/lab1c.py
input a number 6
113.09733552923255
○ @Soroush-Bastani → /workspaces/lab-1-soroush-bastani (main) $ 
```

The screenshot shows the VS Code interface with the following details:

- EXPLORER** sidebar: Shows a folder named "LAB-1-SOROUSH-BASTANI [CODESPACES: PROBAB...]" containing files: lab1a.py, lab1b.py, lab1c.py, lab1d.py (selected), lab1e.py, and README.md.
- Lab1d.py Content:**

```
# Date: 2025-09-17
# Purpose: Use string methods and f-string formating.
# Usage: ./lab1d.py

#TO-DO 1:
# Create a variable called "name" and assign it the value of your name.
# Use the string method .upper() to convert the name to upper case.
# Create another variable called "age", the value of "age" should be your age
# The script, when executed, should print out "How are you yourname? Happy xxth birthday!" To print this output use .format() method.

name="Soroush Bastani"
print(name.upper())
age=30
print("How are you {}? Happy {}th birthday!".format(name,age))

#TO-DO 2:
# Create a variable called "words".
# The value of words should be "The quick brown fox jumps over the lazy dog".
# Use indexing to return the first and 17th characters of "words" to the user.

words="The quick brown fox jumps over the lazy dog"
print(words[0], words[16])

#TO-DO 3:
# Use negative indexing to return the words "jumps" and "quick" from "words" to the user.
print(words[-23:-18], words[-39:-34])

#TO-DO 4:
# Use slicing to return everything between index 2-15 to the user.
# Print "wick brown foxs ju" from "words".
print(words[2:15])
print(words[5:22])
```
- TERMINAL** tab: Displays the execution of the Python script lab1d.py, showing the output of each print statement.
- OUTPUT** tab: Shows the output of the script execution.
- DEBUG CONSOLE** tab: Not visible in the screenshot.
- PORTS** tab: Shows 4 open ports.
- Bottom Status Bar:** Shows "Codespaces: probable telegram" and file status indicators (main\*, 0△0, 4).

The screenshot shows a Microsoft Visual Studio Code interface with the following details:

- Explorer View:** Shows a folder named "LAB-1-SOROUSH-BASTANI [CODESPACES: PROBABLY TELEGRAM]" containing files: lab1a.py, lab1b.py, lab1c.py, lab1d.py, lab1e.py, and README.md.
- Editor View:** The active file is lab1e.py, which contains the following code:

```
3
4  #!/usr/bin/env python3
5  # Author: Soroush Bastani
6  # Date: 2025-09-17
7  # Purpose: Use string methods and f-string formating.
8  # Usage: ./lable.py
9
10 #TO-DO 1:
11 # Create a variable called "quantity".
12 # The value of "quantity" should be a decimal number of your own choice.
13 # Create another variable called "stock"
14 # The value of "stock" should also be a decimal number of your own choice.
15 # Print the product of 'quantity' and 'stock' with 4 spaces before the answer using the module % formatting.
16 # Then print the product of `quantity` and `stock` with 7 spaces before the answer and make sure the answer only goes to hundredths (----) using the module % formatting.
17
18 quantity=6.9999999
19 stock=9.6666666
20
21 print("%4s" % (quantity * stock))
22 print("%7.2f" % (quantity * stock))
23
```
- Terminal View:** Displays the following command-line session:

```
@Soroush-Bastani ~/workspaces/lab-1-soroush-bastani (main) $ /home/codespace/.python/current/bin/python /workspaces/lab-1-soroush-bastani/lab1b.py
@Soroush-Bastani ~/workspaces/lab-1-soroush-bastani (main) $ /home/codespace/.python/current/bin/python /workspaces/lab-1-soroush-bastani/lab1c.py
input a number 6
113.09733552923255
@Soroush-Bastani ~/workspaces/lab-1-soroush-bastani (main) $ /home/codespace/.python/current/bin/python /workspaces/lab-1-soroush-bastani/lab1d.py
SOROUSH BASTANI
How are you Soroush Bastani? Happy 30th birthday!
T f
jumps quick
e quick brown
uick brown fox ju
@Soroush-Bastani ~/workspaces/lab-1-soroush-bastani (main) $ /home/codespace/.python/current/bin/python /workspaces/lab-1-soroush-bastani/lab1e.py
67.66666610333333
67.67
@Soroush-Bastani ~/workspaces/lab-1-soroush-bastani (main) $
```
- Bottom Status Bar:** Shows "Codespaces: probable telegram" and other standard status bar icons.