



SESSION - 1

INTRODUCTION TO PYTHON

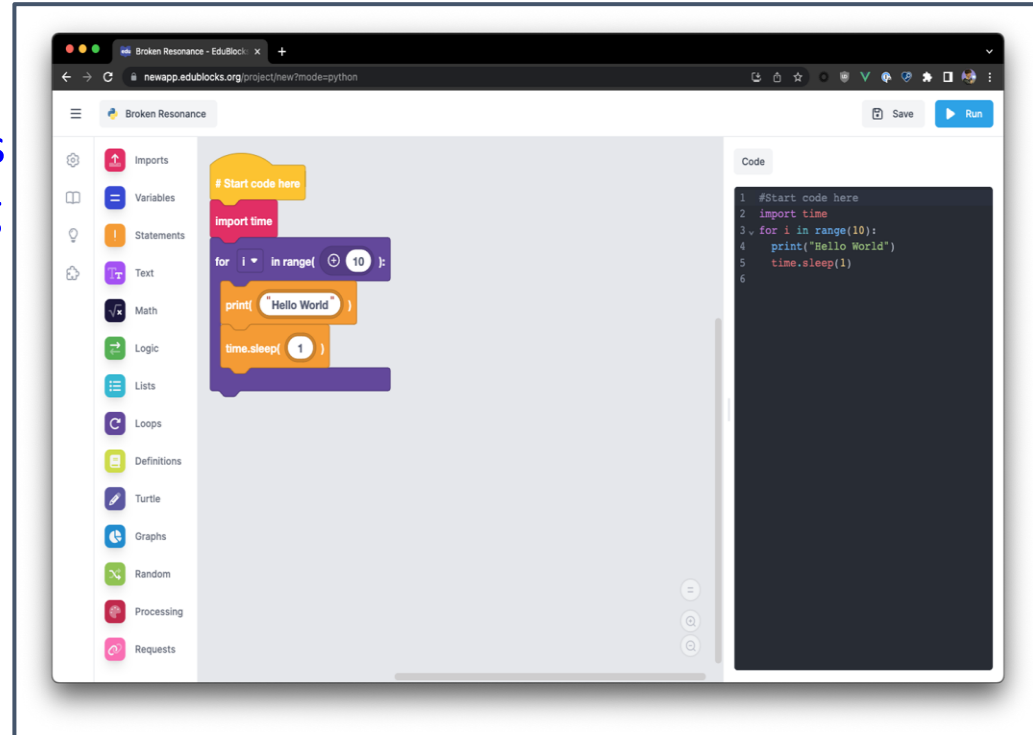


Learning Outcomes:

- **Remember:** The students will list different types of blocks being learnt in the session .
- **Understand:** - They will be introduced to the Python Programming Language
 - They will understand the use of Print command .
 - They will also understand different data types .
- **Apply:** They will learn to apply and check the execution of the Print command.
- **Analyze:** They will check their understanding by developing a code.
- **Create:** They will create the code in EduBlocks

Introduction to EDUBLOCKS

EduBlocks is a visual block-based programming tool that helps teachers to introduce text-based programming languages, like Python, to children at an earlier age via a drag and drop programming experience



The Interface

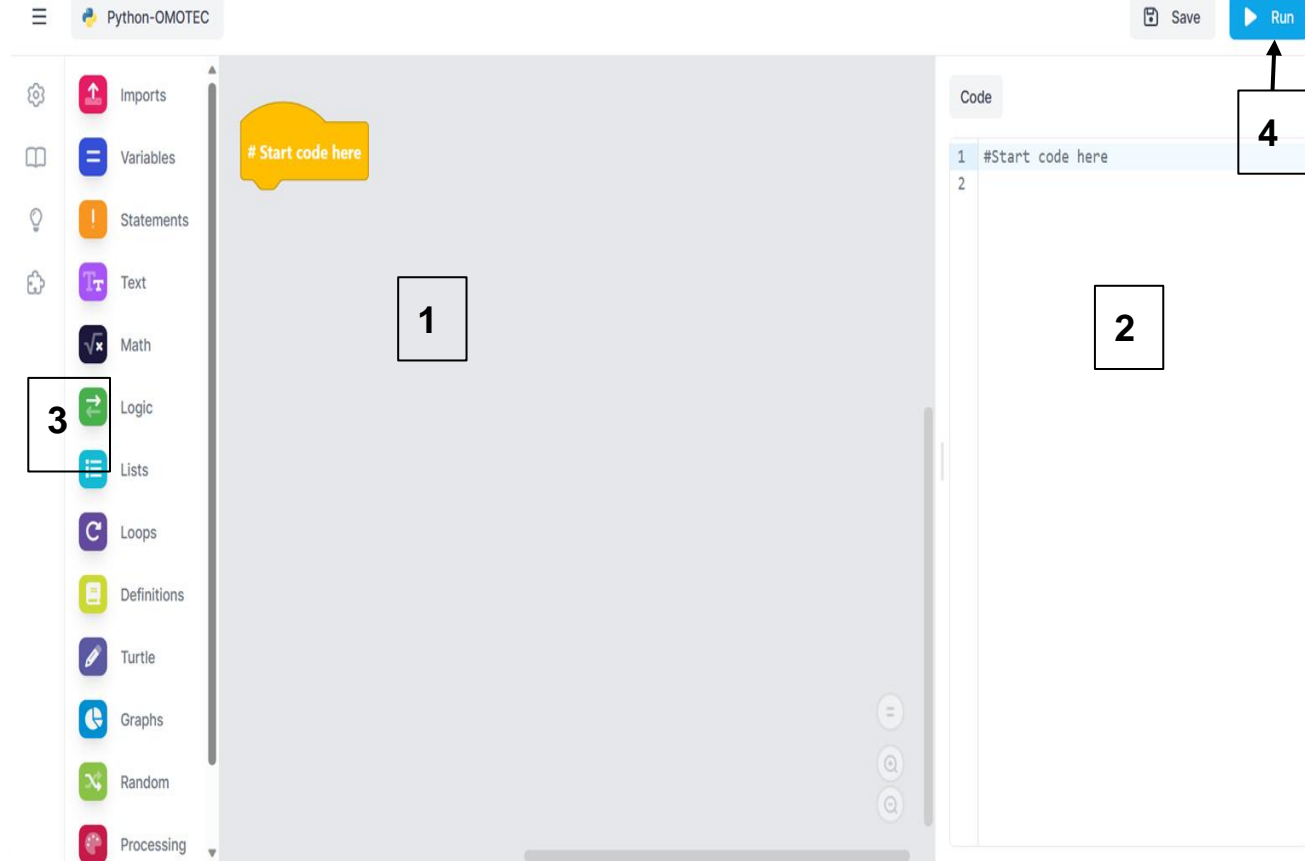
About the Interface :

1- Script Area - We write the code here .

2- Code in the syntax format will be displayed here .

3 - Block Area - We can select and drag the required blocks from this area

4- Click on the RUN Button to execute the written code



Why Learn On EduBlocks ?

EduBlocks is the easiest way to make the transition from blocks to text, here's why:

- ❑ **Text on the blocks**: EduBlocks displays the Python text on the block so you can see exactly what you're coding.
- ❑ **Python view**: The main part of EduBlocks is the visual block editor but once you've completed your block code, you can switch straight to a Python editor.
- ❑ EduBlocks has many different **"modes"** that can be used with external hardware or just in the browser. Modes include:
 - **Python 3**
 - BBC micro:bit
 - Raspberry Pi
 - CircuitPython

How To Access Edublocks ?

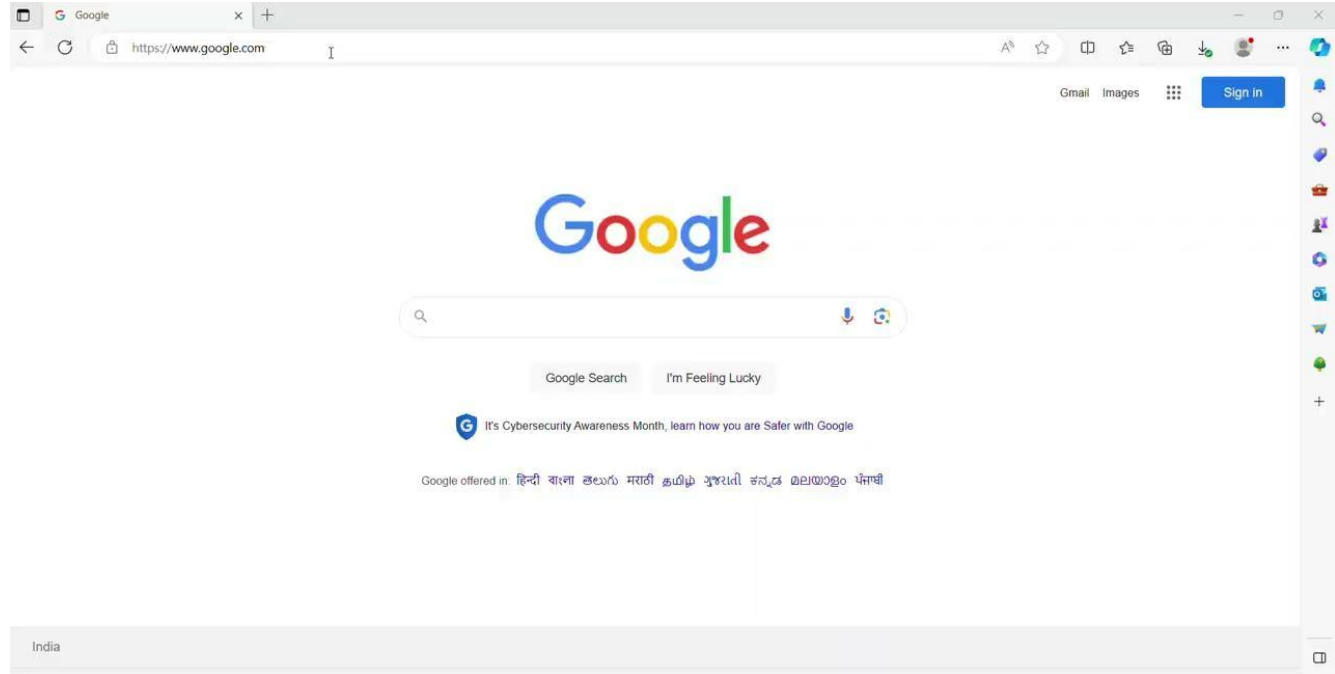
1. Type : <https://edublocks.org/> in the address bar of your Browser .

2. Click on Start Coding

3. Select Python3

4. Start Coding

Reference Video :



Print() Function

- The `print()` function prints the specified message to the screen, or other standard output device.
- The message can be a string, or any other object, the object will be converted into a string before written to the screen.

```
print(" Hello World ")
```

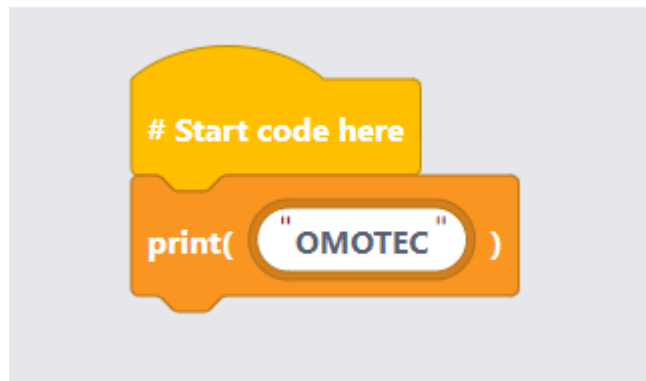
```
print( Variable )
```

TASK 01:-

</>WRITE A PROGRAM TO PRINT YOUR NAME

Program

The image shows a Scratch-style code editor interface. On the left is a sidebar with categories: Imports (red up arrow), Variables (blue equals), Statements (orange exclamation mark), Text (purple T), Math (black square root), Logic (green right arrow), Lists (cyan list icon), and Loops (purple C). The main workspace is divided into sections: Output, Input, and Time. In the Output section, there is a yellow 'print' block with the text 'Hello World' inside, which is highlighted with a red rectangle. Below it is an orange 'print' block with the number '1'. In the Input section, there is an orange 'input' block with the text 'What is your name?'. The Time section is currently empty.



Connect print "Hello World" block and change the text to "your name"

Program

Start code here


print(" OMOTEC ")

Code

Output

```
1 #Start code here
2 print("OMOTEC")
3
```

Output

 Save


 Run

Start code here

print(" OMOTEC ")

Code

```
1 #Start code here
2 print("OMOTEC")
3
```

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OMOTEC

TASK 02:-

**</>WRITE A PROGRAM TO PRINT YOUR NAME
AND MESSAGE WITH A DELAY FUNCTION**

Delay Functions

- **import time**:- When we say import time, we're telling the computer to use a special tool called "time" that helps us keep track of time. Just like you use a clock to know when it's time for different activities, the computer uses the "time" tool to know how much time has passed.
- **time.sleep()**:- This function is like telling the robot to take a little break or pause for a while. You can tell the robot to pause for a specific amount of time. For example, you can say, "Robot, pause for 5 seconds." The robot will wait for 5 seconds before doing the next thing you tell it to do.

import time

time.sleep(1)

Program Step 1:-

Imports

Variables

Statements

Text

Math

Logic

Lists

Loops

Imports

import time

import math

import random

import pygal

Start code here

import time

Code

```

1 #Start code here
2 import time
3

```

Add an time library from imports blocks

Program Step 2:-

↑ Imports

= Variables

! Statements

T Text

√x Math

Output

```
print( "Hello World" )
```

```
print( 1 )
```

Start code here

import time

print("Sakshi")

Code

```

1 #Start code here
2 import time
3 print("Sakshi")
4

```

Connect print "Hello World" block and change the text to "your name"

Program Step 3:-

Imports

Variables

Statements

Text

Math

Time

time.sleep(1)

Convert

str(1)

Start code here

import time

print(" Hello World ")

time.sleep(1)

Code

```

1 #Start code here
2 import time
3 print("Hello World")
4 time.sleep(1)
5

```

Connect print "time.sleep()" block for delay 1 sec

Program Step 4:-

Imports

Variables

Statements

Text

Math

Output

```
print( "Hello World" )
```

```
print( 1 )
```

```
# Start code here
```

```
import time
```

```
print( "Sakshi" )
```

```
time.sleep( 1 )
```

```
print( "Hello World" )
```

Code

```
1 #Start code here
2 import time
3 print("Sakshi")
4 time.sleep(1)
5 print("Hello World")
6
```

Connect print "Hello World" block and change the text to "message"

Program



Code

```
1 #Start code here
2 import time
3 print("Sakshi")
4 time.sleep(1)
5 print("Hello World")
6
```

Output

Start code here

import time

print(" Sakshi ")

time.sleep(1)

print(" Hello World ")

Code

```
1 #Start code here
2 import time
3 print("Sakshi")
4 time.sleep(1)
5 print("Hello World")
6
```

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Sakshi

Hello World

ACTIVITY SHEETS

Question:1

What will the output be from the following code?

```
print(Hello world!)
```

- A. Hello world!
- B. Syntax error
- C. hello
- D. print Hello world

Question:2

Print statement is

- A. Outputs the message on screen
- B. Gets the data from user
- C. A decision
- D. None of the above

Question:3

Which function is used to Print the data at run time?

`print(" Hello World ")`

`input(" What is your name? ")`

`int(1)`

`str(1)`

Question:4

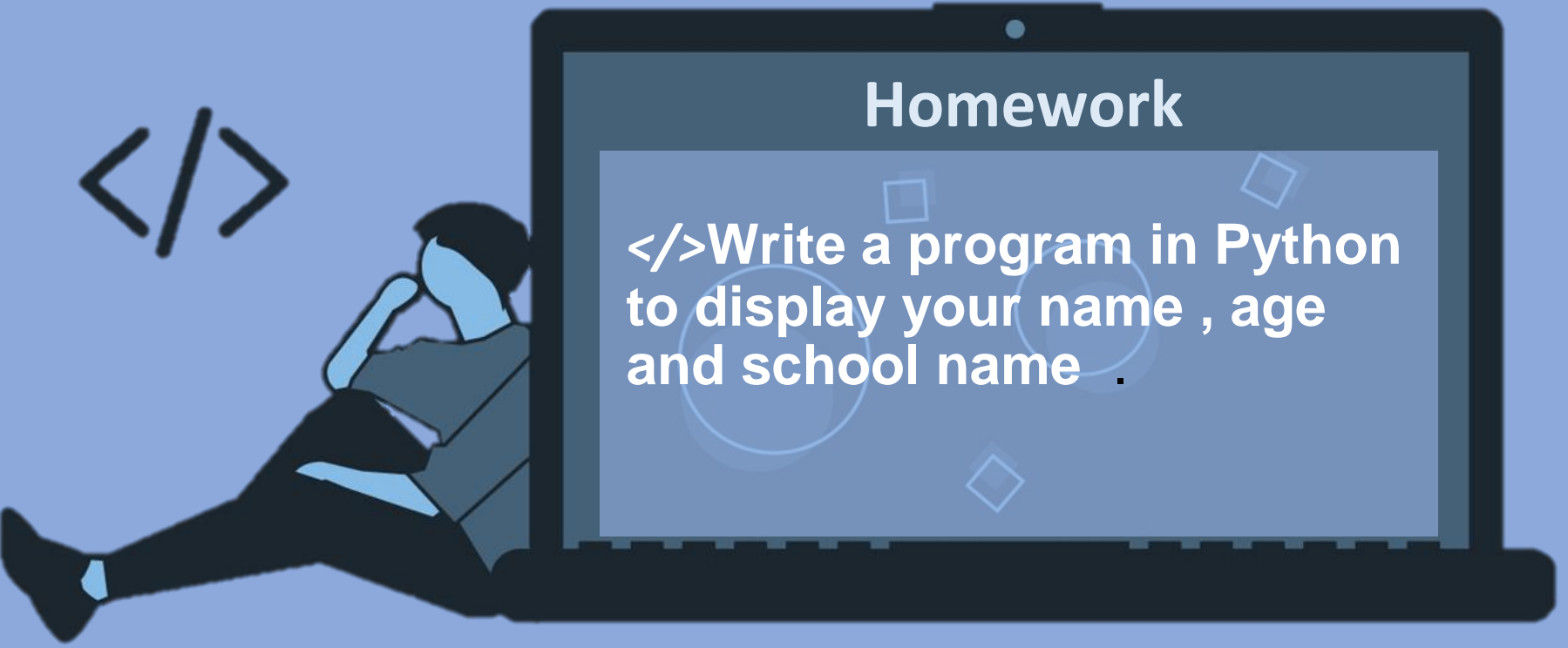
What is the function name to give a delay in the code?

- A. Print function
- B. Gets the data from user
- C. `time.sleep`
- D. None of the above

Question:5

What is the name to the library to give a delay in the code?

- A. `import pygal`
- B. `import time`
- C. `time.sleep`
- D. `import graph`



Homework

</>Write a program in Python to display your name , age and school name .