Marwadi University Marwadi Chandarana Group NAAC A+	**Marwadi University** **Faculty of Engineering & Technology** **Department of Information and Communication Technology**	
Subject: Programming With Python (01CT1309)	**Aim:** Python Serial Port Communication Between PC and Arduino Using the PySerial Library	
Experiment 25	**Date:**	**Enrollment No: 92510133011**

Aim: Python Serial Port Communication Between PC and Arduino Using the PySerial Library

Arduino Code:

```
int x;
    void setup()
      { Serial.begin(115200);
      Serial.setTimeout(1);
      pinMode(2,OUTPUT);
    }
void  loop() {
      while (!Serial.available());
      x = Serial.readString().toInt();
      Serial.print(x + 1);
    }
```

Python Code:

```
import serial
import time

arduino = serial.Serial(port='COM3',  baudrate=115200, timeout=.1)


    def write_read(x):
       arduino.write(bytes(x, 'utf-8'))
       time.sleep(0.05)
       data = arduino.readline() return
       data


while True:
       num = input("Enter a number: ") value
       = write_read(num) print(value)
```

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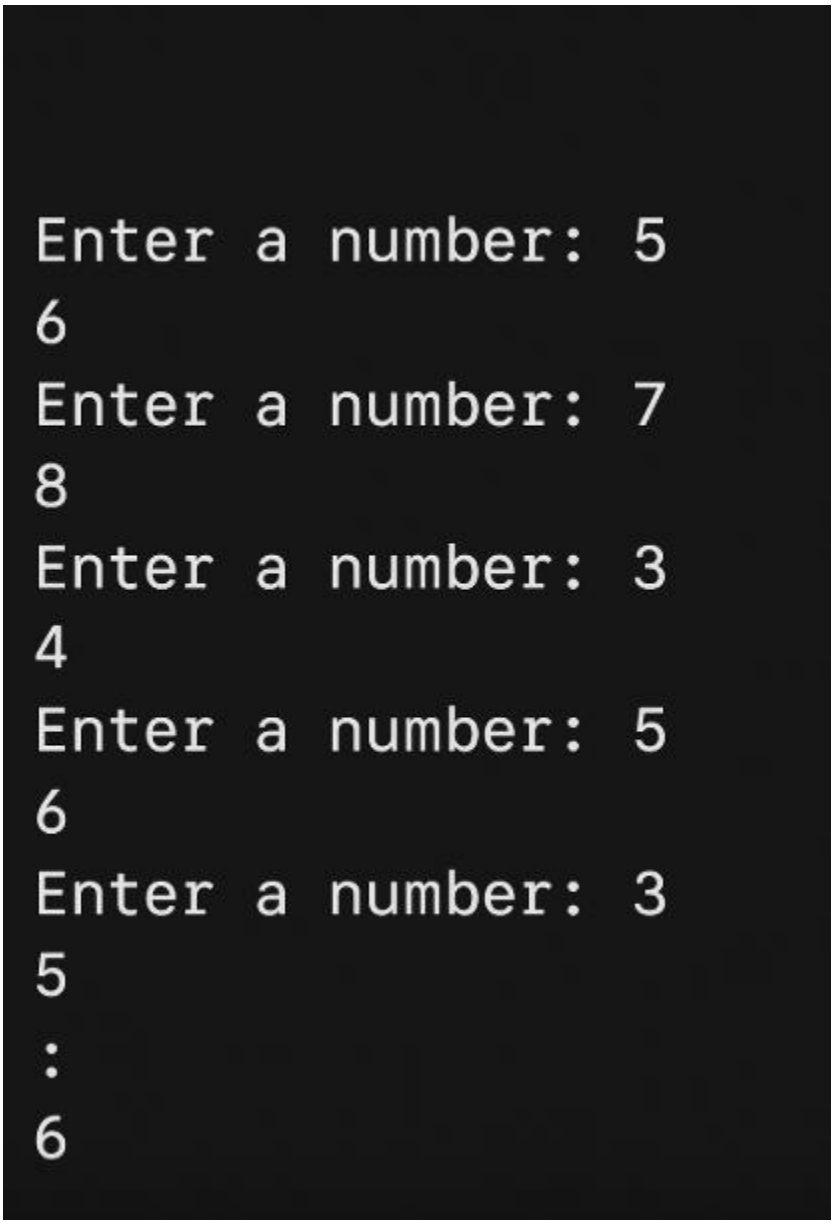
Output:



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Post Lab

Write a Python script to send a message from the PC to Arduino using PySerial.

Arduino Code:

```
String msg;
void setup() {
  Serial.begin(115200);
  Serial.setTimeout(1);
}
void loop() {
  while (!Serial.available());
  msg = Serial.readString();
  Serial.println("Received: " + msg);
}
```

Python Code:

```
arduino = serial.Serial(port='COM3', baudrate=115200, timeout=0.1)
def send_message(msg):
    arduino.write(bytes(msg, 'utf-8'))
    time.sleep(0.05)
    data = arduino.readline()
    return data
while True:
    text = input("Enter message: ")
    response = send_message(text)
    print(response)
```

GITHUB Link: https://github.com/trupalijasani05/trupali-jasani