

Introduction To programming

Lab exercise 0:

Setting the work environment for developing and testing Python code.

Your lab exercise is to complete the following with or without the help of TAs (Teaching Assistants).

1. Arrange for a laptop for yourself for the entire duration of your program at IIIT Delhi – it will not be enough to just have a smart phone. If you do not have the money to buy a laptop, find out if IIIT Delhi can help you.
2. Unless you already have, make sure you have access to the Internet using IIIT Delhi WiFi LAN network from your laptop.
3. Install Microsoft ‘Visual Studio Code’ (or VS Code) on your laptop. To do so, follow the instructions given [HERE](#) . As necessary seek help from your TA in the lab, or the TF (Teaching Fellow), Ms. Riti. This is an IDE to create/debug/edit Python code and do test run to determine whether your code works correctly
4. Create an account on HackerRank. This is a platform to create/debug/edit (or upload) Python code and do a test run, and determine whether your code works correctly. To do so, follow the instructions given by your TA in the lab, or the TF.
5. Now, create/edit a file with the following Python code, and name the file myFirstProgram.py on your laptop, and run the Python code.

```
print('Hello IIIT Delhi.')
print('Hello Delhi.')
print('Hello World.')
```

The output should read the following on three different lines:

```
Hello IIIT Delhi
Hello Delhi
Hello World
```

6. Repeat the same on HackerRank platform.
7. Now create/edit a file with the following code on HackerRank and run it few times with different input and check if the third item it prints is indeed the smaller of the two numbers you ‘input’.

```
T1 = float(input('Time 1? '))
T2 = float(input('Time 2? '))
if(T1 < T2):
    minT = T1
else:
    minT = T2
```

```
print(T1, T2, minT)
```

As examples: run the code and input numbers **5.0** and **7**, and again with numbers **7** and **5.0**. Observe what the program prints. Is it?

5.0, 7.0, 5.0

7.0, 5.0, 5.0

8. Now create/edit a file with the following code on HackerRank and run it ONCE and check if HackerRank passes the test run – take help of TAs to determine if HackerRank has passed the code.

```
define function MinTime(T1, T2, T3)
    minT = T1
    if (T2 < minT) then minT = T2
    if (T3 < minT) then minT = T3
    print(minT)
```

```
nextEvent = MinTime(15.0, 17.1, 26)
nextEvent = MinTime(17.1, 15.0, 26)
nextEvent = MinTime(17.1, 26, 15.0)
```

The output better be:

15.0

15.0

15.0