



UITs

UNIVERSITY OF INFORMATION TECHNOLOGY & SCIENCES

Assignment

Course Code- CSE 312

Course Title-Artificial Intelligence Lab.

Assignment NO: 2

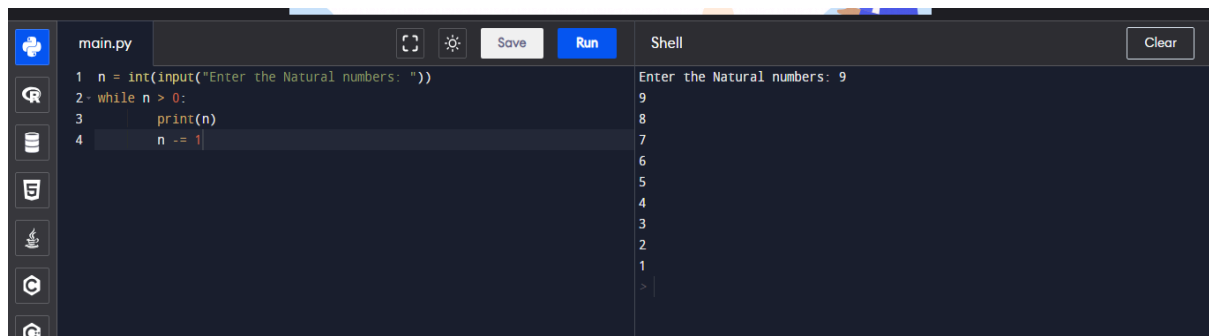
Topic name:Python basic problem solving.

<u>Submitted by-</u>	<u>Submitted to-</u>
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Q.1: Write a python program to print all natural numbers in reverse (from n to 1).

ANS:

```
n = int(input("Enter the Natural numbers: "))
while n > 0:
    print(n)
    n -= 1
```

A screenshot of a Python IDE interface. The left pane shows a file named 'main.py' with the following code:

```
1 n = int(input("Enter the Natural numbers: "))
2 while n > 0:
3     print(n)
4     n -= 1
```

The right pane, labeled 'Shell', shows the output of the program:

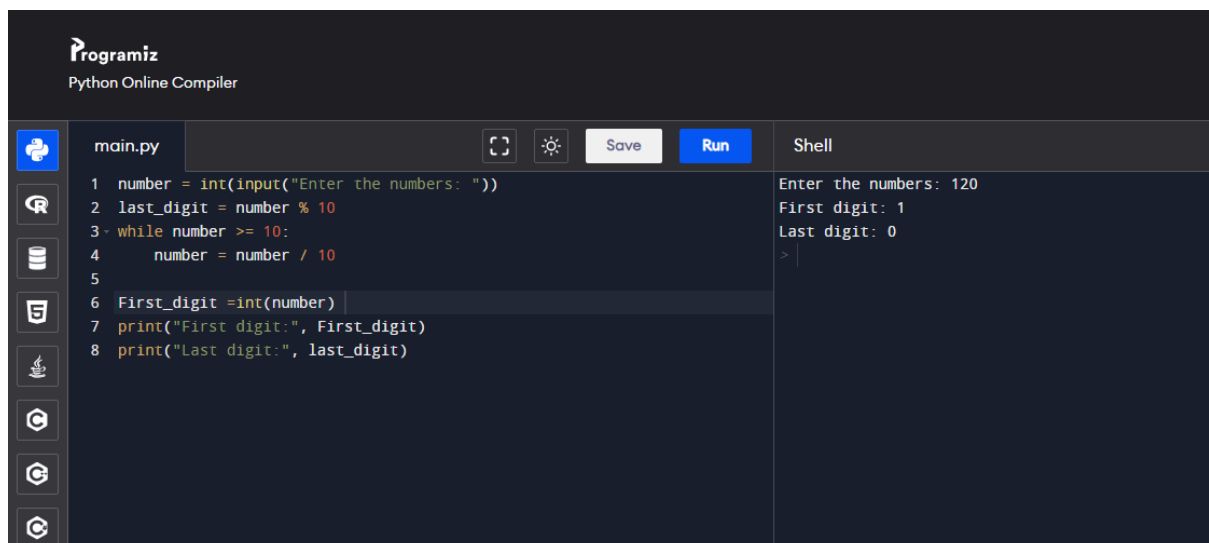
```
Enter the Natural numbers: 9
9
8
7
6
5
4
3
2
1
>
```

Q.2: Write a python program to find first and last digit of any number.

ANS:

```
number = int(input("Enter the numbers: "))
last_digit = number % 10
while number >= 10:
    number = number / 10
```

```
First_digit = int(number)
print("First digit:", First_digit)
print("Last digit:", last_digit)
```

A screenshot of a 'Programiz Python Online Compiler' interface. The left pane shows a file named 'main.py' with the following code:

```
1 number = int(input("Enter the numbers: "))
2 last_digit = number % 10
3 while number >= 10:
4     number = number / 10
5
6 First_digit = int(number)
7 print("First digit:", First_digit)
8 print("Last digit:", last_digit)
```

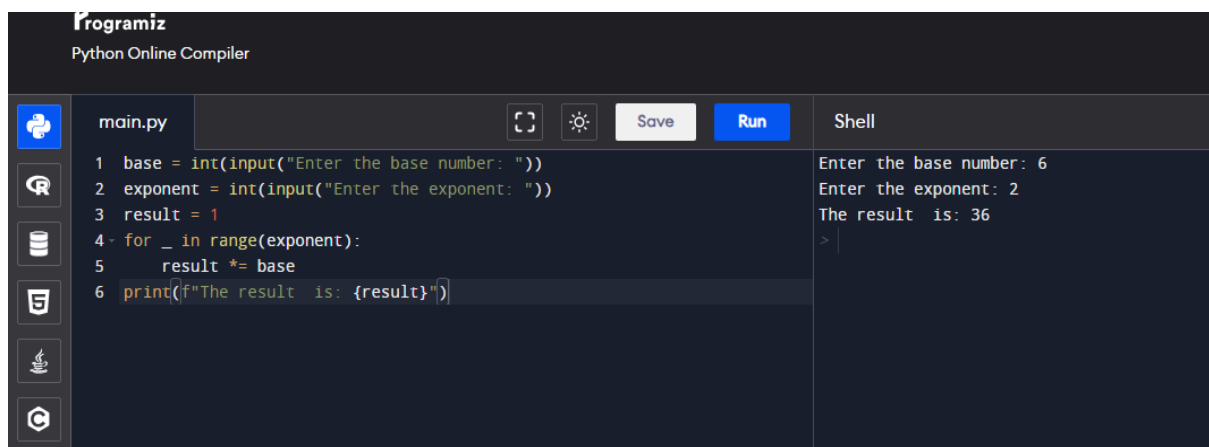
The right pane, labeled 'Shell', shows the output of the program:

```
Enter the numbers: 120
First digit: 1
Last digit: 0
>
```

Q.3:Write a python program to find power of any number using for loop.

ANS:

```
base = int(input("Enter the base number: "))
exponent = int(input("Enter the exponent: "))
result = 1
for _ in range(exponent):
    result *= base
print(f"The result is: {result}")
```



The screenshot displays the Programiz Python Online Compiler interface. The editor shows a file named 'main.py' with the following Python code:

```
1 base = int(input("Enter the base number: "))
2 exponent = int(input("Enter the exponent: "))
3 result = 1
4 for _ in range(exponent):
5     result *= base
6 print(f"The result is: {result}")
```

The 'Run' button is highlighted in blue. The output shell on the right shows the execution results:

```
Enter the base number: 6
Enter the exponent: 2
The result is: 36
>
```