

Assignment -2
Python Programming

Assignment Date	19 September 2022
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Maximum Marks	2 Marks

Question-1:

Write a Python program to find the number of zeros at the end of a factorial of a given positive number.

Range of the number(n): $(1 \leq n \leq 2 \cdot 10^9)$.

Solution:

```
def factendzero(n):  
    x = n // 5  
    y = x  
    while x > 0:  
        x /= 5  
        y += int(x)  
    return y  
  
print(factendzero(5))  
print(factendzero(12))  
print(factendzero(100))
```

output:

```
main.py  Run  Shell
1 def factendzero(n):
2     x = n // 5
3     y = x
4     while x > 0:
5         x /= 5
6         y += int(x)
7     return y
8
9 print(factendzero(5))
10 print(factendzero(12))
11 print(factendzero(100))
12
```

```
1
2
24
> |
```

Question-2:

Write a Python program to find the number of divisors of a given integer is even or odd.

Solution:

```
def divisor(n):
    x = len([i for i in range(1,n+1) if not n % i])
    return x
print(divisor(15))
print(divisor(12))
print(divisor(9))
print(divisor(6))
print(divisor(3))
```

output:

```
main.py  Run  Shell
1 def divisor(n):
2     x = len([i for i in range(1,n+1) if not n % i])
3     return x
4 print(divisor(15))
5 print(divisor(12))
6 print(divisor(9))
7 print(divisor(6))
8 print(divisor(3))
9
```

```
4
6
3
4
2
> |
```

Question-3:

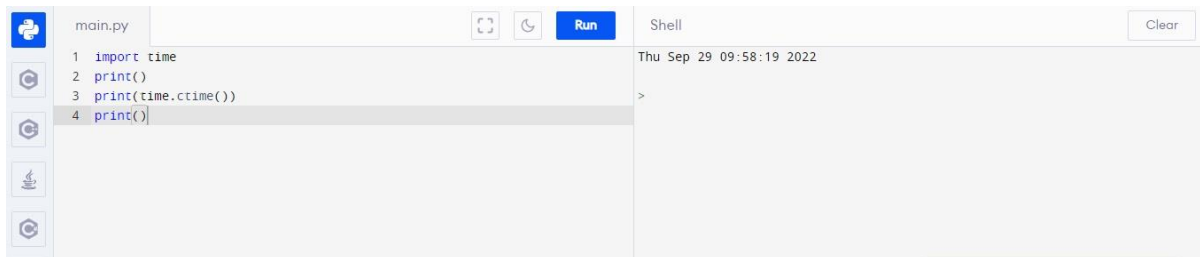
Write a Python program to get the system time

Note : The system time is important for debugging, network information, random number seeds, or something as simple as program performance.

Solution:

```
import time
print()
print(time.ctime())
print()
```

output:

A screenshot of a Python IDE interface. The left pane shows a file named 'main.py' with four lines of code: 1. 'import time', 2. 'print()', 3. 'print(time.ctime())', and 4. 'print()'. The right pane, titled 'Shell', shows the output of the program: 'Thu Sep 29 09:58:19 2022' followed by a prompt character '>'. The IDE has a blue header bar with a 'Run' button and a 'Clear' button in the top right corner of the shell pane.

Question-4:

Write a Python program to get the Identity, Type, and Value of an object

Solution:

```
x = 34
print("\nIdentity: ",x)
print("\nType: ",type(x))
print("\nValue: ",id(x))
```

output:

```
main.py  Run  Clear
1 x = 34
2 print("\nIdentity: ",x)
3 print("\nType: ",type(x))
4 print("\nValue: ",id(x))
5
```

```
Shell
Identity: 34
Type: <class 'int'>
Value: 9790048
>
```

Question-5:

Write a Python program to check whether a variable is integer or string

Solution:

```
print(isinstance(25,int) or isinstance(25,str))
print(isinstance([25],int) or isinstance([25],str))
print(isinstance("25",int) or isinstance("25",str))
```

output:

```
main.py  Run  Clear
1 print(isinstance(25,int) or isinstance(25,str))
2 print(isinstance([25],int) or isinstance([25],str))
3 print(isinstance("25",int) or isinstance("25",str))
4
```

```
Shell
True
False
True
> |
```