

Python Assignment Day2 Solution:

1. Write a Python program to accept a filename from the user and print the extension of that.

Sample filename: abc.java

Output : java

Python Methods:

***split(" ")** - It returns 2 strings separated by mentioned by given separator .

***repr()** - It computes the “official” string representation of an object .

```
filename = input("Input the Filename: ")
fextns = filename.split(".")
print ("The extension of the file is : " + repr(fextns[-1]))
```

2. Program to find factorial of a number

```
def factorial(n):
    # single line to find factorial
    return 1 if (n==1 or n==0) else n * factorial(n - 1);

# Driver Code
num = 5;
print("Factorial of",num,"is", factorial(num))
```

3. Program to print ASCII Value of a character

ord() : It converts the given string of length one, return an integer representing the unicode code point of the character. For example, ord('a') returns the integer 97.

```
c = 'g'

print("The ASCII value of '" + c + "' is", ord(c))
```

4. Program for n-th Fibonacci number

```
def Fibonacci(n):
    if n<0:
        print("Incorrect input")
    # First Fibonacci number is 0
    elif n==1:
        return 0
    # Second Fibonacci number is 1
    elif n==2:
        return 1
    else:
        return Fibonacci(n-1)+Fibonacci(n-2)

# Driver Program

print(Fibonacci(9))
```

5. Python program to check if given number is prime or not

```
num = 11

# If given number is greater than 1
if num > 1:

    # Iterate from 2 to n / 2
    for i in range(2, num//2):

        # If num is divisible by any number between
        # 2 and n / 2, it is not prime
        if (num % i) == 0:
            print(num, "is not a prime number")
            break
    else:
        print(num, "is a prime number")

else:
    print(num, "is not a prime number")
```

6. Program for Sum of squares of first n natural numbers

```
def squaresum(n) :
    sm = 0
    for i in range(1, n+1) :
        sm = sm + (i * i)

    return sm

# Driven Program
n = 4
print(squaresum(n))
```

7. Program to concatenate all elements in a list into a string and return it.

```
def concatenate_list_data(list):
    result= ''
    for element in list:
        result += str(element)
    return result
print(concatenate_list_data([1, 5, 12, 2]))
```

8. Program to check Armstrong Number

```
# Function to calculate x raised to the power y
def power(x, y):
    if y==0:
        return 1
    if y%2==0:
        return power(x, y/2)*power(x, y/2)
    return x*power(x, y/2)*power(x, y/2)

# Function to calculate order of the number
def order(x):
    n = 0
    while (x!=0):
        n = n+1
        x = x/10
    return n

# Function to check whether the given number is Armstrong number or not
def isArmstrong (x):
    n = order(x)
    temp = x
    sum1 = 0
    while (temp!=0):
        r = temp%10
        sum1 = sum1 + power(r, n)
        temp = temp/10

    # If condition satisfies
    return (sum1 == x)
```