

Python Assignment Programs

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Program 1:

CODE:

```
# Program to check if a number is prime or not

# To take input from the user
num = int(input("Enter a number: "))

# define a flag variable
flag = False

# prime numbers are greater than 1
if num > 1:
    # check for factors
    for i in range(2, num):
        if (num % i) == 0:
            # if factor is found, set flag to True
            flag = True
            # break out of loop
            break

# check if flag is True
if flag:
    print(num, "is not a prime number")
else:
    print(num, "is a prime number")
```

OUTPUT:

```
-----
Enter a number: 32
32 is not a prime number
>>>
=====
Enter a number: 31
31 is a prime number
>>>
=====
Enter a number: 17
17 is a prime number
.
```

Program 2:

CODE:

```
# Python String Operations
str1 = 'Hello'
str2 = 'World!'

# using +
print('str1 + str2 = ', str1 + str2)

# using *
print('str1 * 3 =', str1 * 3)

#slicing string
txt = "Raja Adhithan"

x = txt.split()

print('first name is : ',x[0])
print('last name is : ',x[1])
```

OUTPUT:

```
str1 + str2 = HelloWorld!
str1 * 3 = HelloHelloHello
first name is : Raja
last name is : Adhithan
```

Program 3: Python program that accepts a string and calculate the number of digits and letters.

CODE:

```
s = input("Input a string")
d=l=0
for c in s:
    if c.isdigit():
        d=d+1
    elif c.isalpha():
        l=l+1
    else:
        pass
print("Letters", l)
print("Digits", d)
```

OUTPUT:

```
Input a string a7
Letters 1
Digits 1
>>>
===== RE
Input a string the number 70 is divisible by 2,5,7
Letters 22
Digits 5
>>>
===== RE
Input a string 24 = 2 x 2 x 3 x 2
Letters 3
Digits 6
```