python-1-2

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1 The print() function in Python is used to display output.

[3]:
```
print('hello world')
print("hello world")    # python treats both single and double quotes equally.
```

```
hello world
```

2 Variable: variables are used to store and manage data. You can assign values to variables and use them in your programs.

[4]:
```
var = 'ashish'
```

[5]:
```
var
```

[5]:
```
'ashish'
```

[ ]:
```
# to check the type of a variable
type(var)
```

[ ]:
```
# assigning values to the varibles

a=10
b=20
c= 10.0
d= 'ashish'
```

3 input function is used to take input from the user

[7]:
```
input('enter your number')
```

```
enter your number 1
```

[7]:
```
'1'
```

[2]:
```
ashish = input("enter your number")
type(ashish)
```

[2]:
```
a = input()
b= input()
print(type(a),type(b))  # Input function return the value in string
```

```
 1
 2
<class 'str'> <class 'str'>
```

[2]:
```
str
```

[24]:
```
a+b # we won't be able to perform the arithmetic operations
```

[24]:
```
'1020'
```

4 type casting

Type casting is the explicit conversion of a variable from one data type to another. This is done using predefined functions like int(), float(), str(), etc.

[25]:
```
type(a)
```

[25]:
```
str
```

[27]:
```
a =int(a)  # type casting
```

[28]:
```
type(a)
```

[28]:
```
int
```

5 type conversion

Type conversion, on the other hand, refers to the automatic conversion of one data type to another, done by the interpreter during expressions evaluation or other operations

[30]:
```
var1 = 10
var2 = 10.5
var3 = var1+ var2
```

[31]:
```
var3
```

[31]:
```
20.5
```

6 function

a function is a block of reusable code that performs a specific task.

[6]:
```
def myname():
    a= input()
    b= input()
    return a+" "+b
myname()
```

```
ashish
kumar
```

[6]:
```
'ashish kumar'
```

[5]:
```
def cal(a,b):
    return a+b,a-b,a*b,a%b,a/b
cal(2,1)
```

[5]:
```
(3, 1, 2, 0, 2.0)
```

[1]:
```
# class 2
```

[8]:
```
def addition(a,b):
    return a+b
```

[11]:
```
addition(int(input()),int(input()))
```

```
1
2
```

[11]:
```
3
```

7 conditional statments

[15]:
```
a = 100
if a==10:
    print("hello")
elif a==20:
    print("hola")
else:
    print("bye")
```

```
bye
```

[18]:
```
best_friend = input()
if best_friend=='rahul':
```

```
    print("HEllO")
else:
    print("BYE")
```

```
 Rahul
BYE
```

a = int(input('enter your number')) if a%2==0: print("even") else: print("odd")

8 loops

[27]:
```
for i in range(1,3):    # for loop
    print(i)
```

```
1
2
```

[25]:
```
range(1,3)   # The range() function in Python is used to generate a sequence of␣
 ↪numbers.
```

[25]:
```
range(1, 3)
```

[7]:
```
#while loop
a=0
while a<=5:
    print("hello")
    a=a+1
```

```
hello
hello
hello
hello
hello
hello
```

[36]:
```
for i in range(3):
    print(i)
    if i==1:
        break   # break statement is used to terminate the loop
    print('ashish')
    print('ashish')
```

```
0
ashish
ashish
1
```

[9]:
```
for i in range(3):
    print(i)
    if i==1:
        continue          # continue statement is used to skip the next␣
 ↪statements
    print('ashish')
    print('ashish')
```

```
0
ashish
ashish
1
2
ashish
ashish
```

[10]:
```
# to check whether a number is prime or not
def prime_checker(a):
    flag=0
    for i in range(2,a+1):
        if a%i==0:
            flag=flag+1
    if flag==1:
        print('number is prime')
    else:
        print('number is not prime')

prime_checker(int(input()))
```

```
 123
```

```
number is not prime
```

[64]:
```

```

[33]:
```
def prime_no(a):
    flag=0
    if a==0 or a==1:
        print('please enter a number greater than 1')
    elif a==2:
        print('number is prime')
    else:
        for i in range(2,a):
            if a%i==0:
                flag+=1
                break
        if flag==1:
            print('number is not prime')
```

```
        else:
            print('number is prime')
```

[42]:
```
prime_no(int(input()))
```

```
 181
number is prime
```

[1]:
```
def check_even():
    for i in range(10):
        a = int(input('enter your number'))
        if a%2==0:
            print('even')
        else:
            print('odd')
```

[2]:
```
check_even()
```

```
enter your number 1
odd
enter your number 2
even
enter your number 12
even
enter your number 121
odd
enter your number 123
odd
enter your number 1223
odd
enter your number 1212
even
enter your number 2123
odd
enter your number 133
odd
enter your number 12
```

```
even
```

[6]:
```
def adder(a,b):
    return(a+b)
a = input('username')
b = int(input('password'))

if a=='ashish' and b==1223:
    ans = adder(int(input('enter ur number')),int(input('enter your number')))
    print(ans)
else:
    print('invalid input')
```

```
username ashish
password 1223
enter ur number 12
enter your number 23
35
```

[12]:
```

```

[ ]:
```

```