First Edition.

Python Cheat Sheet

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First Program in Python

```python
print("Hello World")
```

Comment in Python

Variable

```python
name = "PyHub Blog" #"name" is a varriable
print(name)
```

Common 3 Data Types

- Integer
- String
- Float

Getting the Data Type using `type()` function

```python
mydata = 10
type(mydata)
<class 'int'>
```

```python
mydata = "10"
type(mydata)
<class 'str'>
```

```python
mydata = 10.0
type(mydata)
<class 'float'>
```

Mathematics Operation Example

```python
num1 = input("Enter the first number: ")
num2 = input("Enter the second number: ")

num1 = int(num1)
num2 = int(num2)

result = num1 + num2
print("Result is: ", result)
```

List

```python
friends_list = ["Tahsin", "Likhon", "Imtiaz", "Uzzal", "Efaz"]
print(friends_list)
```

The `len()` function returns the number of items in an object. (*Source: w3schools*)

```python
friends_list = ["Tahsin", "Likhon", "Imtiaz", "Uzzal", "Efaz"]
print(friends_list[0])
```

*The list index starts with 0 in Python.

Conditional Logic

Example no. 1:

```python
marks = input("Enter your marks: ")
marks = int(marks)

if marks >= 80:
 grade = ("A+")
elif marks >= 70:
```

```python
    grade = ("A")
elif marks >= 60:
    grade = ("A-")
elif marks >= 50:
    grade = ("B")
else:
    grade = ("F")

print("Your grade is: ", grade)
```

Example no. 2:

```python
num1 = input("Enter first number: ")
num2 = input("Enter second number: ")
num3 = input("Enter third number: ")

num1 = int(num1)
num2 = int(num2)
num3 = int(num3)

if num1 > num2:
    max = num1
else:
    max = num2
if num3 > max:
    max = num3
print("Max number is: ", max)
```

Example no.3:

```python
num = input("Enter an integer: ")
num = int(num)

if num % 2 == 0:
    result = "Even"
else:
    result = "Odd"
print("This number is: ", result)
```

For Loop

```python
for i in range(5):
    print("Send Message")
```

While Loop

```python
count = 0
while (count < 10):
    count = count + 1
    print("Send Message")
```

Tuple

```python
fruits = ('onion', 'potato', 'ginger', 'cucumber')
type(fruits)
```

Set in Python

```python
fruits = {'orange', 'banana', 'apple', 'apple'}
type(fruits)
```

*you can't access elements in set using index numbers

Dictionary

```python
my_info = {'name' : 'Sakhawat Hossain', 'nickname' : 'Rodro', 'blog' : 'https://pyhub-blog.com'}

print(my_info['name']) #access item in dictionary without index
number
```

Exercise

1. Python program to add two numbers
2. Maximum of two numbers in Python
3. Python Program for factorial of a number
4. Python Program to check Armstrong Number
5. Python Program for Program to find area of a circle
6. Python program to print all Prime numbers in an Interval
7. Python program to check whether a number is Prime or not