Basics python concepts

- Topics

- Variables :- A named memory location that stores value. Here we can use variables are used to store data which we can use later.
- I use variable using assignment operator (=)
- In many cases we can use the variable to retrieve the value.
- Here , definitely we need to follow some rules while having new variable, it can contain lowercase, uppercase, numbers and underscores.
- Remember we can't able to create variable name starts with number.
- We cant use here python keywords as variable names. Keyword list
    a. Keywords are reserved words that have special meanings and serve purposes in the language syntax. Python keywords cannot be used as the names of Variables, functions, and classes or any other identifier.(link)
    b. List of Keywords in Python
        i. True, false, none, and, or not, is, if, else, Elif, for, while, break, continue, pass, try, except, finally, raise, assert, def, return, lambda, yield, class, import, from, in,as, del, global, with, nonlocal, async, await.
- Something like we need to check on this also like it should not contain special characters !, @, #, %, ^, &, etc…

Ex:
```
x = 5
Y = "john"
Print(x)
Print(y)
```

- **Here how we can identify these python keywords?**
- **With syntax highlighting** – most of IDE provide syntax-highlight feature. You can see keywords appearing in different color of style.
- **Error -** an output area error will encounter if we use any keyword here incorrectly, these keywords are not identifiers I mean: (a function or variable)
- I want to do one thing here I can categorize all keywords.
    a. Value keywords - True, false, none.
    b. Operator keywords - and, or not, is,
    c. Control flow keywords - if, else, Elif, for, while, break, continue, pass, try, except, finally, raise, assert,
    d. Function and class - def, return, lambda, yield, class,
    e. Context management - with, as
    f. Import module - import, from, as
    g. Scope and Namespace - global, nonlocal

h. Async programming - async, await.

- Imp lets look into keyword sin other pdf's.

➢ I will some variables programs here.

a. # Variable 'x' stores the integer value 10

```
x = 5
# Variable 'name' stores the string "Ravi"
name = "Ravi"
print(x)
print(name)
```

b. I will some values to variables check this. And I will give you some invalid emaples to check variable or not.

Ex:- age = 21

```
_color = "red"
Total_score = 90
Ex2:- #innvalid  variable
1name = "error" #starts with a digit
Class =10
User-name= "ravi"
```

➢ This variables in python are assigned values using the = operator.

```
X = 5
Y = 3.14
Z = "hi"
```

➢ variables are dynamically I mean same variable can hold different type sof values duing its execution.

Ex:3- X = 10

X = "now a string"

➢ assigning the same value

python (present) assigning the same value to multiple variables in a single line, which can be useful for initializing variables with same value.

Ex4:-

```
a=b=c =100
Print(a, b, c)
```