Data Representation in Python

=>In Any Programming Language, Data is most important component for decision making.

=>In Programming Languages, Data is also called as Values / Literals.

=>In Programming Languages, we have 4 types of Literals. They are

1. Integer Literals
2. Floating Point Literals
3. String Literals
4. Boolean Literals

Identifiers or Variables in Python

=>When we enter input or literals, they are stored in main memory by allocating sufficient amount of memory space with help of data types. To Process the data which was stored in main memory, as a programmer, we must some distinct names and these names make us to identify the values stored in memory space and hence distinct names are called "Identifiers". The values of Identifiers are changing or verifying during program execution and hence Identifiers are also called "Variables".

=>Hence All types of Input or Literal must be stored in the form of Variables.

=>All Types of Variables are called Object.

=>Without storing the data in the form objects, we can't process the data.

Rules for Using Variables in Python Program

=>To Use Variables in Python Program, we have the following Rules

1. The Variable Name is Combination of Alphabets, Digits and Special Symbol (_)
2. The Variable Name Must starts with either Alphabet or A special Symbols Under Score (_) only

Examples:

```
                   abc=123------valid
                   $abc=45----invalid
                   _sal=56---valid
                   _sal_=99---valid
                   123abc=56---invalid
                   @123=67---invalid
```

3.Within the Variable Name, Special Symbols are not allowed
  except Under Score (_)

Examples:

```
                         tot  sal=45---invalid
                         tot-sal=56----invalid
                         tot_sal=56--valid
                         tot$sal=4.5--invalid
```

NOTE: In Python, we use # symbol for Commenting Purpose.
      Commenting Statements are ignored by python execution
      Environment.

4.No keywords to be used as variables Names bcoz Keywords are
  the reserved words and they have some specific meaning in the
  languages.

Examples:

```
                             if=45------invalid
                          while=78--invalid
                          for=56----invalid
                          if1=45---valid
                          _while=5.6---valid
                          for_=5.6---valid
```

5.The variables names are case sensitive.

```
                   >>> AGE=99
                   >>> age=98
                   >>> Age=97
                   >>> aGe=96
                   >>> print (AGE, age, Age, aGe)
```

6.All the variables are recommended to take as User-friendly
  Names

Examples:

```
                   >>> tot_emp_sal=56----valid
                   >>> print(tot_emp_sal) --------56
                   >>>tot_marks_stud=67--valid
                   >>print(tot_marks_stud) -----67
```