ASSIGNMENT-01

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Data types in Java

Data Type:

Data type in java are of different sizes and values that can be stored in the variable that is made per convenience.

There are two types:

1) Primitive Data type:

Single values that have one special capabilities.

(i) Boolean data type:

represents only bit of information whether "true" or "false". Syntax: boolean boolean var;

(ii) Byte data type:

8 bit signed two's complement integer useful for saving memory in large arrays.

Syntax: byte byte var;

(iii) Short data type:

16-bit signed two's complement integer.

Syntax: short short var;

(iv) Integer data type:

32-bit signed two's complement integer

Syntax: int int var;

(v) Long data type:

64-bit two's complement integer, 8 byte.

Syntax: long longvar;

(vi) Float data type:

Single precision 32-bit IEEE 754 floating point.

Syntax: float floatvar;

(vii) Double data type:

double precision 64-bit IEEE 754 floating point Syntax: double doublevar;

(viii) Char data type:

Single 16-bit unicode character with size of 2 bytes. Syntax: char charvar;

Example: Byte Data

```
1) public class Byte {
    public static void main (String [] args) {
    byte n,a;
    n = 124;
    a = 1774;
    System.out.println(n);
    } System.out.println(a);
}
```

2) Short Data:

```
public class Prim {
    public static void main (String [] args) {
    short n = 3435;
    System.out.println(n);
}}
```

Non-Primitive data type:

(i) Strings:

-> array of characters
-> designed to hold sequence of characters

Syntax: <String-type>
<String variable> :-
" <sequence of strings> ";

2) Class:

->User defined blue print or prototype from which objects are created.

3) Object:

-> Basic unit of object oriented programming and represents real-life entities

4) Interface:

->Methods declared in an interface are by default abstract

Example:

```
Public class String {
    public static void main (String[] args) {
        String Str = "Hello";
        String Substr = Str. Substring (0, 5);
        System.out.println(Substr);
    }
}
```