SSSIT Computer Education
Besides R.S.Brothers Show Room
KPHB-Hyderabad. Java Online Training

Java

Language fundamentals of Java

"A token is nothing but smallest individual component"

1. *character set* : it represents set of characters which are supported by Java language. Java language support Unicode character set.

 Unicode character set is the combination of both ASCII and Non ASCII

 Non ASCII : represent other language characters that is national and international language character set. With help of NON ASCII we can develop language friendly applications.

Range : 0 to 65535

ASCII Includes :
A TO Z : 65 to 90, a to z : 97 to 122, 0-9 [48 to 57] ,
Space bar : 32 , Esc : 27, Backspace :8

2. *Variable :* **It is named container , which enable you to store the date temporarily during the programming execution or A space to store the data**

Syn:[Modifiers]b<datatype>b<identifier>[=value]; // here b is space

3.Datatypes :
These are used to represent what type of the data to be stored in the specified variable.
In Java datatypes are classified into 2 category.

1.Primitive Datatypes :
  These are used to store the values

Type	Size in Bytes	Range
byte	1 byte	-128 to 127
short	2 bytes	-32,768 to 32,767
int	4 bytes	-2,147,483,648 to 2,147,483, 647
long	8 bytes	-9,223,372,036,854,775,808 to 9,223,372,036,854,775,807
float	4 bytes	approximately $\pm 3.40282347E+38F$ (6-7 significant decimal digits)

SSSIT Computer Education
Besides R.S.Brothers Show Room
KPHB-Hyderabad. Java Online Training

Java

		Java implements IEEE 754 standard
double	8 bytes	approximately ±1.79769313486231570E+308 (15 significant decimal digits)
char	2 byte	0 to 65,536 (unsigned)
boolean	not precisely defined*	true or false

Type	Default Value
byte	0
short	0
int	0
long	0
float	0.0f
double	0.0d
char	'\u0000'
boolean	false
String or other object	null

2.Reference Datatypes :
  These are used to store the references , where the values a stored
  Eg: Class, Array, Interfaces

Primitive types are used to store the data, whereas reference types are used to store the reference where data is stored.

4.Identifiers
Are nothing but the names which are declared by us for the programming requirements such as , Variablenames, method names,package names , class names etc.

Rules for Identifiers :
1.It must starts with an alphabet or an underscroll
2.It may have Digits
3.It may have special characters like _ and $
4.It may be in upper case or lower case or mixed case
5.It should not be the keyword

SSSIT Computer Education
Besides R.S.Brothers Show Room
KPHB-Hyderabad. Java Online Training

Java

Eg: eno, ENO,eNO
_eno
989eno   --> invalid
eno989   --->valid
e.no ---> invalid
e_no --> valid
e$no --> valid
e[no] --> invalid
EMPLOYEENUMBER --> valid
assert --> invalid | Keyword

5.Keywords
These are nothing but reserved words.
These are having its own importance in the programming
The meaning of the keywords are defined to the compilers

Keywords W.R.T Datatypes:
--
byte, short, int, long, float, double, char, boolean
IQ: void is a datatype or not ?
Yes,It is an empty datatype or 0 byte datatype.

Keywords W.R.T Conditional and Control Stmts
===
if, else, switch, case, break, while,do,
for, return, goto(x), const (x), continue

Keywords W.R.T Class and Object :
===
class, interface, package, new, instanceof,
this, super, extends, implements, import

Keywords W.R.T Exception Handling:
===
try, catch, throw, throws, finally, assert

Keywords W.R.T.Modifiers:
===
Access Modifiers:
private, default, protected, public

Non Access Modifiers:

SSSIT Computer Education
Besides R.S.Brothers Show Room
KPHB-Hyderabad. Java Online Training

Java

abstract, final, static, transient, volatile, synchronized , native, strictfp