

1. **Statically Typed Language ;**

This is a programming language where the data types of the variables are known at compile-time.

Dynamically Typed Language :

This is a programming language where the data types of the variables are known at run-time.

Strongly Typed Language ;

This is a programming language which strictly refer type of the variable. So the variable types should explicitly written.

Loosely Typed Language ;

This is a programming language which isn't strictly refer type of the variable. So the variable types shouldn't explicitly written.

Java is a Strongly Typed and Statically Typed language.

2. Case sensitive language is the distinction between uppercase and lowercase letters is significant.

Eg :- age = 20;

Age = 20; these two variables are considering as two variables.

Case Insensitive language is the distinction between uppercase and lowercase letters isn't significant.

Eg :- age = 20;

Age = 20; these two variables are considering as one variable.

Case Sensitive-Insensitive language has ability two switch between case sensitivity and insensitivity selectively.

Java is a case sensitive language.

3. Identity conversion is a conversion type which allows to assign a value to a variable of the same type without loss of data or information.

Eg:- int num1 =10;

int num2 = num1;

4. It means automatically promoted smaller data types to larger types without any casting.



also int to double and long to float.

5. Compile-time constant is a value which can be evaluated by the compiler at compile-time itself

Eg:- final int CONSTANT_1 = 10;

Runtime constant is a value which can only be evaluated at run-time, means its value is determined during the execution.

Eg:- final int CONSTANT_2 = computeValue();

6. Implicit narrowing conversion is done by the compiler when there is no data loss occurs. But the explicit narrowing conversion should be done by the user manually when converting larger data type to a smaller data type.

Conditions for implicit narrowing conversion.

Assigning value should be compile-time constant.

Assigning value should be lay withing the bit-range of the assigned type.

7. ?

8. Int – because int is the most common data type used to represent the whole number and it's well balanced with the memory.

Double – double can provide higher precision compared to float. And double provide more accuracy than float.

9. ?

10. Widening narrowing primitive conversion combines both two types of conversions. As an example when byte converting to a char, firstly it widening converting to a int and then narrowing converting to a char.

Short → char ?