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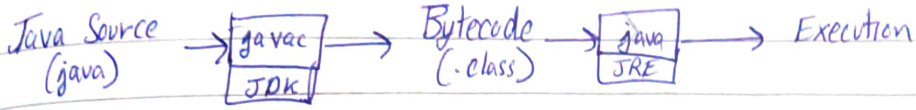
Introduction

Compilation : javac <file name>.java
Execution : javac <classname> [.class]



x Public Classes require same name of file as class.

x Auto type narrowing only allowed in declaration + definition of variables, not during assignment.

main() :
Signature : public static void main (String [] args) {
...
}

public : For global visibility across environment.
static : For no binding to class objects, allows for invocation without instance creation
(Static : Belongs to class, shared across all instances)
void : No return type
String [] : For command line arguments.

Accessing static members —:
1) Through Class identifier.
2) Through Object identifier.
3) Direct through identifier in static context of same class.
4) Through static reference.

Type Conversion & Casting -:

1) Automatic (Widening) Conversion -:

Prerequisites : × Compatible types (primitive ↔ primitive)
× Destination type larger than source.
(Larger Range of type)

Widening flow : Byte ✗ Short < Char < Int < Long < Float < Double

Caveat : × No automatic conversion from numeric or char to boolean.
× Automatic conversion (narrowing) of integer literals into variables of other numeric types during declaration & initialization. (type promotion during operations to int)
× Type promotion : float to double in operations
byte & short to int in ops.
max type of operands in ops.

× For overflow in operations post type promotion, explicit type casting is required for narrowing.
× Numeric Narrowing to Numeric -: value mod (range(type))
× Numeric Narrowing from Real -: Integral component / truncation
× Type conversion (narrowing) post type promotion only applicable to literals & operands of lower types.