STATIC CONTROL FLOW

*Whenever we are executing a java class, the following sequence of activites will be executed as the part of static control flow*

*1. Identification of static members from top to bottom (1 to 6)*

*2. Execution of static variable assignments and static blocks from top to bottom(7 to 12)*

*3. Execution of main methods.*

***class*** *Base {*

*/\*1\*/***static int** *i* = 10;*/\*7\*/*

*/\*2\*/***static** {

*m1*();*/\*8\*/*

System.***out***.println(**"First static block"**);*/\*10\*/*

}

*/\*3\*/***public static void** main(String[] args) {

*m1*();*/\*13\*/*

System.***out***.println(**"Main method"**);*/\*15\*/*

}

*/\*4\*/***public static void** m1() {

System.***out***.println(*j*);*/\*9, \*//\*14\*/*

}

*/\*5\*/***static** {

System.***out***.println(**"Second static method"**);*/\*11\*/*

}

*/\*6\*/***static int** *j* = 20;*/\*12\*/*

}

Read indirectly write only/////

Inside static block if we are trying to read a variable, that read operation is called direct read

If we are calling a method and within that method if we are trying to read a variable that read operation is called in-direct read.

**class** Test {

**static int** *i*=10;

**static** {

*m1*();

System.***out***.println(*i*); *//direct read*

}

**public static void** m1() {

System.***out***.println(*i*); *//indirect read*

}

}

If a variable is just identified by the JVM and original value not yet assigned then the variable is said to be in Read – indirectly and Write only state(RIWO).

If a variable is in RIWO state then we can’t perform direct read. But we can perform indirect read.

If we are trying to read directly we will get compile time error saying: “Ilegal forward reference”

**class** Base {

**static** {

*m1*();

System.***out***.println(*i*); *//illegal forward reference*

}

**static void** m1() {

System.***out***.println(*i*); *//indirect read*

}

**static int** *i*=10;

}