1. Static keyword is used to efficiently manage memory. Static keyword is used for constant variable or method that is constant for every instance of a class. If a variable or block or method is static then it is loaded first.

Example:-

class StaticKeyword{

    static String name;

    static{

       name="Ashutosh";

       System.out.println("my name is "+name);

    }

    public static void main(String[] args) {

        System.out.println("static method later");

    }

}

Here the static variable is loaded first then the static block followed by the main method which is static.

The output of the program is

my name is Ashutosh

static method later

1. Classloading is the process of loading class files into the JVM at runtime. It is responsible for loading classes from various sources, such as the file system, network and databases and making them available to the JVM for execution. The class loading process is divided into three phases loading, linking and initialization.

At first, the java program is compiled by java compiler and converted into byte code. The byte code is the .class file which given to JVM for further execution .In JVM the class is loaded and the different part of the program goes to different areas. The areas are Method area, Heap , Java Stack , PC Registers ,Native Method Stack. Then the interpreter comes into action with JIT compiler. Then the program is successfully executed.

1. No, we can not mark a local variable as static.
2. The static blocks always execute first before the main() method in Java because the compiler stores them in memory at the time of class loading and before the object creation. Here, the compiler executes all the static blocks first, and after finishing the static block execution, it invokes the main() method.
3. A static method is a method that belongs to a class rather than an instance of a class. This means we can call a static method without creating an object of the class. Hence, Static methods are called class methods.
4. Static block in java is used for changing the default value of static variables, initializing static variables of the class, write a set of codes that you want to execute during the class loading in memory.
5. Instance variables are created when an object is created with the use of the keyword 'new' and destroyed when the object is destroyed. Static variables are created when the program starts and destroyed when the program stops. Instance variables hold values that must be referenced by more than one method, constructor or block, or essential parts of an object's state that must be present throughout the class. In static variable, There would only be one copy of each class variable per class, regardless of how many objects are created from it.
6. static members are one per class but non-static members are one per instance. static members are accessed by their class name which encapsulates them, but non-static members are accessed by object reference.

Hello