

Assignment-15

- (1) Static keyword helps us to run the function without creating an object of class. Static keyword is used to associate a method of a given class with the class rather than the object. Static Method in the class is shared by all the objects.
- (2) Class loading is the process of loading class file in JVM at runtime. Class loading process divided into three phases:
  - (1) loading
  - (2) linking
  - (3) Initialization

The Java file contains the source code and by the help of Javac compiler ~~is~~ compiled the code into Class file that contains ~~is~~ bytecode and bytecode executes in JVM and internally in JVM bytecode interpreted to machine code. and class file load in JVM and then linking process means see the structure of program and if any static variable is present that allocate memory in Heap area and give default value.

(3) No, we cannot mark a local variable as static.

(4) ~~The static blocks always execute first before main() method because during the class loading time the memory is allocated in heap area for static blocks and variables and static blocks execute without calling. and static variables and blocks are independent.~~



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(4) The static blocks always execute first before main() method because compiler stores them in the Heap memory at the time of class loading and before object creation and compiler executes static block first.

(5) We call static method as class method because static method is independent and static method belongs to a class rather than instance of class means we can call static method without creating an object of class.

(6) Static blocks is mainly used to initialize the static variables. Static blocks can not access instance of non static variables and methods.

(7) The memory of static variable ~~allocate~~ <sup>created</sup> at the time of class loading in Heap area and memory allocated only once and we use static variable when the same copy of data will be used among all the instance of class and instance variable ~~allocate~~ <sup>memory</sup> ~~at the~~ <sup>created</sup> at the time of object creation and instance variable created everytime whenever object created.

static variable  
declared as  
static  
keyword

Date \_\_\_/\_\_\_/\_\_\_

Saathi

## (8) Static members

~~Static variables are~~

Static members are those which belongs to the class and we can <sup>access</sup> static members without creating object of class. The static keyword can be used with methods, variables, block, classes.

## Non static members

The members which not marked as static and we can access Non static members <sup>after</sup> ~~with~~ creating an object of class. Non static members dependent on the object.