STATIC

STATIC

- Static is a keyword.
- It is a modifier.
- Any member of a class is prefixed with a static modifier then it is known as a static member of a class.
- Static members are also known as class members.

NOTE:

Static members can be prefixed only for a class members (members declared in a class).

STATIC MEMBERS:

- Static method
- Static variable
- Static initializers

STATIC METHOD:

A method prefixed with a static modifier is known as the static method.

CHARACTERISTICS:

- Static method block is stored in the method area and reference of the static method is stored inside the class static area (static pool).
- We can use the static method with or without creating an object of the class.
- We can use the static method with the help of the class name.
- A static method of the class can be used in any class with the help of a class name.

STATIC VARIABLE:

Variable declared in a class block and prefixed with static modifier is known as static variable.

CHARACTERISTICS:

- It is a member of the class.
- It will be assigned a default value.
- Memory will be allocated inside the class static area.
- It is global in nature, it can be used within the class as well as in different classes.
- We can use a static variable with the help of the class name as well as with the help of object reference.
- We can access the static variable from different classes directly with the help of the class name.

NOTE: If static variable and local variable are of the same name then we can differentiate static variable with the help of class name.

STATIC INITIALIZERS:

We have two types of static initializers. They are,

- Single line static initializer
- 2. Multi-line static initializer

SINGLE LINE STATIC INITIALIZER:

```
Syntax to create single line static initializers:
static data type variable = value / expression;
```

MULTILINE STATIC INITIALIZER:

```
Syntax to create multi line static initializers:
static
{
Statements;
```

CHARACTERISTICS:

- Static initializers get executed implicitly during the loading process of the class.
- A class can have more than one static initializer they execute top to bottom order.

PURPOSE OF STATIC INITIALIZER:

- Static initializers are used to execute the startup instructions.
- As the static blocks get executed before the actual execution of the main method.

STATIC CONTEXT:

- The block which belongs to the static method and multi-line static initializer is known as static context.
- Inside a static context, we can use the static members of the same class directly by using its name.
- Inside a static context, we can't use the non-static members of the same or different class directly by using its name or by using its class name.
 - this keyword is not allowed inside the static context.