NON-STATIC

NON STATIC

- **Any member declared in a class and not prefixed with a static modifier is known as a non-static member of a class.**

● Non-static members belong to an instance of a class. Hence it is also known as an instance member or object member.

● The memory for the non-static variable is allocated inside the heap area(instance of a class).

● We can create any number of instances for a class.

● Non-static members will be allocated in every instance of a class.

NON STATIC MEMBERS

- Non-static variable
- Non-static method
- Non-static initializers
- Constructors

NON STATIC VARIABLE

A variable declared inside a class block and not prefixed with a static modifier is known as a non-static variable.

CHARACTERISTICS

- We can’t use the non-static variable without creating an object.
- We can only use the non-static variable with the help of object reference.
- Non-static variables are assigned with default during the object loading process.
- Multiple copies of non-static variables will be created (once for every object).

NON STATIC METHOD

A method declared in a class block and not prefixed with a static modifier is known as a non-static method.

CHARACTERISTICS

- **A method block will get stored inside the method area and a reference of the method is stored inside the instance of a class [object].**
- **We can’t call the non-static method of a class without creating an instance of a class[object].**
- **We can’t access the non-static method directly with the help of class names.**
- **The non-static method can’t be accessed directly with their names inside the static context.**

NON STATIC INITIALIZERS

- Non-static initializers will execute during the loading process of an object.
- Non-static initializers will execute once for every instance of a class created. [object created].

PURPOSE OF NON STATIC INITIALIZERS

Non-static initializers are used to execute the startup instructions for an object.

TYPES OF NON STATIC INITIALIZERS

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

1. SINGLE LINE NON STATIC INITIALIZER

Syntax to create single line non static initializers

```
datatype variable = value / reference ;
```

2. MULTI LINE NON STATIC INITIALIZER

Syntax to create multi line non static initializers

```
{
    // statements ;
}
```

NOTE : All the Non-static initializers will execute from top to bottom order for every object creation.

NON STATIC CONTEXT

- The block which belongs to the non-static method and multi-line non-static initializer is known as non-static context.

- Inside a non-static context, we can use static and non-static members of the same class directly by using its name.

this

- It is a keyword.
- It is a non-static variable it holds the reference of a current executing object.

USES OF THIS

- Used to access the members of the current object.
- It is used to give the reference of the current object.
- Reference of a current object can be passed from the method using the ‘this’ keyword.
- Calling a constructor of the same class is achieved with the help of this call statement.