



# Object Oriented Analysis and Design using Java

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## Method Types

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## Method Types - Agenda

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1. Introduction
2. Types of methods in Java
3. Static method in detail
4. Static block

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## Introduction

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- Method

A block of code which only runs when it is called.

Can pass data, known as parameters, into a method.
- Researchers use three primary methodology types: **qualitative, quantitative and mixed methods.**
- Three main types of descriptive methods: **observational methods, case-study methods and survey methods.**
- Other Types of methods: **interface methods, constructor methods, and implementation methods**
- **Methods are used to perform certain actions,** and they are also known as functions as well

How many methods are in a class Java?

Limited to **65535** by the size of the methods\_count item of the ClassFile structure

## Types of methods

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- **Pre - defined method**
- **User – defined method**
- **Instance method:** Invoked or called using an object. Get a reference (**this**) to the instance/object and variables modified are that of the particular instance.
- **Static method :** A method that can be called and executed without creating an object

- Belongs to the class rather than the object of a class. So, associated with the class, rather than with any object
- Every instance of the class **shares a static variable, which is in one fixed location in memory**
- Can be invoked without the need for creating an instance of a class.
- Can access static data member and can change the value of it but **Non-static variable cannot be referred by a static method directly.**

```
private static int c;
```

```
static void change1()  
{    c++;    }
```

## static Block

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- May be used to initialize static variables
- Gets executed exactly once, when the class is first loaded
- Coding example





# THANK YOU

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