**Day 10: 29-10-2025:**

**Java 8:**

**Method reference :** A method reference in Java 8 is a short notation of lambda expression that call as existing method directly rather linking explicitly.

Using this concept we can refer a method by its name instead of writing full lambda expression. With help of method reference we can make code core concise and readable.

In other word a method reference is a compact way of passing behaviour (method execution) as an argument to a method or functions.

Syntax to use method reference

ClassName::methodName; method must be static

ObjectName::methodName: method can be non static

List<String> ll = Arrays.asList(“A”,”B”,”C”);

To retrieve data from collection using lambda

ll.stream().forEach(v->System.out.println(v));

To retrieve data from collection using method reference

ll.stream().forEach(System.out::println);

Optional class : The Optional class in java 8 is a container object use to represent the present or absent a specific value in method or any class objects. It helps to avoid NullPointerException by providing few pre defined method to handle safe way null value.

Before Java 8 we were using Date class, Calendar class, SimpleDateFormat class etc.

There is two Date class is there

1 part of util package : to find system date and time

2. part of sql package : to store date information in database.

SimpleDateFormat class is part of text package.

All these date classes not a thread safe and they are mutable.

From Java 8 onward all date and time related classes kept in time package.

LocalDate

LocalTime

LocalDateTime

ZoneDateTime

Java 9 Features

1. From Java 9 onward interface can contains private methods.

**try with resource**

**Java 7 features the classes which internally implements Closeable interface automatically call close() method to close the resource. Now a day finally block not required.**

**Resource close in reverse order.**

try(){

}catch(Exception e) {

}

Java new features

Sealed classes

Records

Enhanced switch statemen using lambda style

Text block