**Day 11:**

**Java 9 Features**

1. **JShell :** REPL Terminal (Read Eval Print Loop) mean we can execute simple code using command prompt.
2. we can declare variable using var keyword.
3. Java9 onward we can use module concept like Angular. Module like collection of more than one packages which specific functionality it provide.

Bean module 🡪 separate project

Service module 🡪 separate project

Dao module 🡪 separate project

Resource module 🡪 separate project

Main application 🡪 separate project

1. From Java 9 onward we can create **immutable collection classes**.
2. From Java 9 onward interface can contains private method.

**Java 10 Features**

1. From java 10 onward we can declare the local variable using var keyword. while declaring the variable we need to assign the value and base upon type of value the variable consider that type of data types.
2. copyOf() in collection to create shallow copy

**Java 11 Features**

1. we can use var keyword inside lambda expression parameter.
2. String class container few new method isBlank, lines(), repeat(), strip() etc
3. From java 11 onward we can run the .java program directly without compiling . Run directly source code.

**Design pattern :** Design pattern is best practise or solution for repeating problem.

Core Design pattern : GOF

23 design pattern.

These design pattern mainly divided into 3 types.

1. **Creational design pattern**: these design pattern deal with object creation.
2. Singleton design pattern:
3. Builder design pattern
4. Factory pattern
5. Abstract factory pattern
6. Prototype design pattern
7. **Structural design pattern:** structure of class and interfaces.
8. Adapter design pattern
9. Composite
10. Flyweight design pattern
11. Proxy design pattern
12. Decorator design pattern
13. Bridge design pattern
14. Façade design pattern

1. **Behavioural design pattern:** these design patter deal with object interaction.
2. Chain of responsibility:
3. Command design pattern
4. Visitor design pattern
5. Template design pattern
6. Interpreter design pattern
7. Mediator design pattern
8. Memento design pattern
9. Iterator design pattern
10. Observable design pattern
11. State design pattern
12. Strategy design pattern

**Singleton design pattern:**

According to this design pattern we need to create only one object of that particular class.