****Design Patterns**** mainly devided into three ****categories****in ****Java****:

1. ****Creational Design Patterns:****  Creational design patterns deal with the creation of object in the best possible way in the specific situation.****​**** Some of the creational design patterns are as follow:****​****
   1. **[Singleton Design Pattern](https://codepumpkin.com/?p=398" \t "https://codepumpkin.com/design-patterns/_blank)**
   2. ****Factory Design Pattern****
   3. ****Abstract Factory Design Pattern****
   4. **[Builder Design Pattern](https://codepumpkin.com/?p=815" \t "https://codepumpkin.com/design-patterns/_blank)**
   5. ****Prototype Design Pattern****
   6. **[Object Pool Design Pattern](https://codepumpkin.com/design-patterns/?p=1299" \t "https://codepumpkin.com/design-patterns/_blank)**
2. ****Structural Design Patterns:**** Structural design patterns  provide different ways to create class structure. Some of the structural design patterns are as follow:
   1. ****Bridge Design Pattern****
   2. ****Facade Design Pattern****
   3. ****Proxy Design Pattern****
   4. ****Composite Design Pattern****
   5. ****Decorator Design Pattern****
   6. ****​Adapter Design Pattern****
3. ****Behavioral Design Pattern:****Behavioral design patterns provide solution for the bettern interaction between objects and how to provide loose couplings and flexibility to extend. Some of the behavioral design patterns are as follow:
   1. **[Mediator Design Pattern](https://codepumpkin.com/?p=1399" \t "https://codepumpkin.com/design-patterns/_blank)**
   2. ****Iterator Design Pattern****
   3. ****Strategy Design Pattern****
   4. ****Command Design Pattern****
   5. ****Interpreter Design Pattern****
   6. **[Observer Design Pattern](https://codepumpkin.com/?p=1257" \t "https://codepumpkin.com/design-patterns/_blank)**

Apart from above mentoined three main types, There are some design patterns that deals with multi-threaded programming paradigm. Those are known as ****Concurrency Design Patterns****.  Some of the concurrency design patterns are as follow:

1. **[Producer Consumer Design Pattern](https://codepumpkin.com/?p=467" \t "https://codepumpkin.com/design-patterns/_blank)**
2. ****Leaders/followers pattern****
3. ****Read write lock pattern****
4. ****Balking pattern****
5. ****Scheduler pattern****
6. ****Thread pool pattern****
7. ****Barrier pattern****
8. ****Double-checked locking****
9. ****Guarded suspension pattern****
10. ****Reactor pattern****