* Initial name: Interface 21 🡪 Changed to Spring
  + Spring was alternative for EJB (Enterprise java beans)
  + Spring makes applications light weight and loosely coupled
  + EJB makes applications heavy weight and tightly coupled
  + People compared EJB with winter, so Spring is called spring.

JDK LIBRARY

**AWT**  **Swings**

OS LIBRARY

OS LIBRARY

Heavy weight Lightweight

EJB Spring

Spring Jar

(Depends on)

Application Server

JDK LIBRARY

Application Server

Heavy weight Light weight

* If you make an instance of one class in another class, they become tightly coupled
  + You can solve this problem by using interface to implement a class instead of directly creating instance of once class to other.
  + This is done by java run-time polymorphism
* Simple POJO (plain old java objects) are enough for controller, business, DAO part in spring.
* Spring recommends association instead of inheritance:
  + Interface A{-----}
  + Class B implements A
  + Class C extends B
  + Class D { B b = new B(); C c = new C();}
    - This gives us access to methods in both B and C class.
    - The class is loosely coupled
    - Class D is POJO class because it doesn’t implement or extend any other classes.
* By using has-a-relationship and runtime polymorphism, they implemented complete spring.
* IOC (Inversion of Control) has two containers:
  + J2EE
    - Class name of J2EE container is Application context. (Interface)
  + Core
    - Class name of core container is Bean factory (Interface)
* MVC has one container
  + Web Container
    - Class name of web container is Web Application context (Interface)