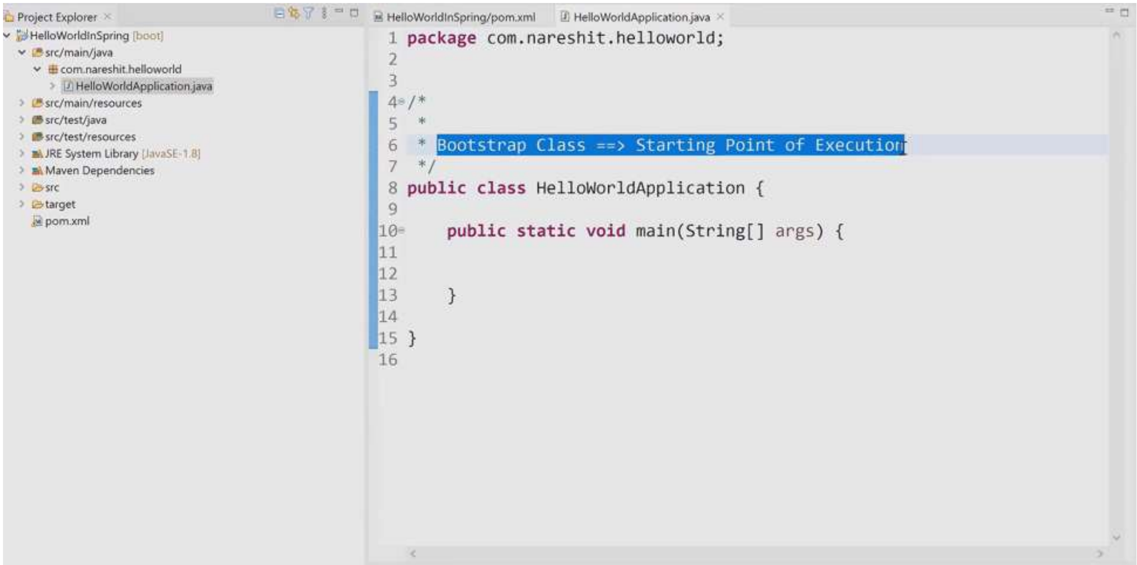
07

Monday, 23 June 2025 05:13

Bootstarp class



```
package com.nareshit.helloworld;


/*
 *
 * Bootstrap Class ==> Starting Point of Execution
 */
public class HelloWorldApplication {

    public static void main(String[] args) {


    }

}
```

Bootstrap class	starting point of execution

How to know a class is a bootstrapclass or not ?

- if we write a annotation "@SpringBootApplication"
- A Java class which is having @SpringBootApplication is called as Bootstrap class
- Every Springboot project should have only one bootstrap class.
- Bootstarp --> boot --> booting --> starting --> starting point

what is a annotation?

- A predefined keyword with "@" symbol is called as annotation.

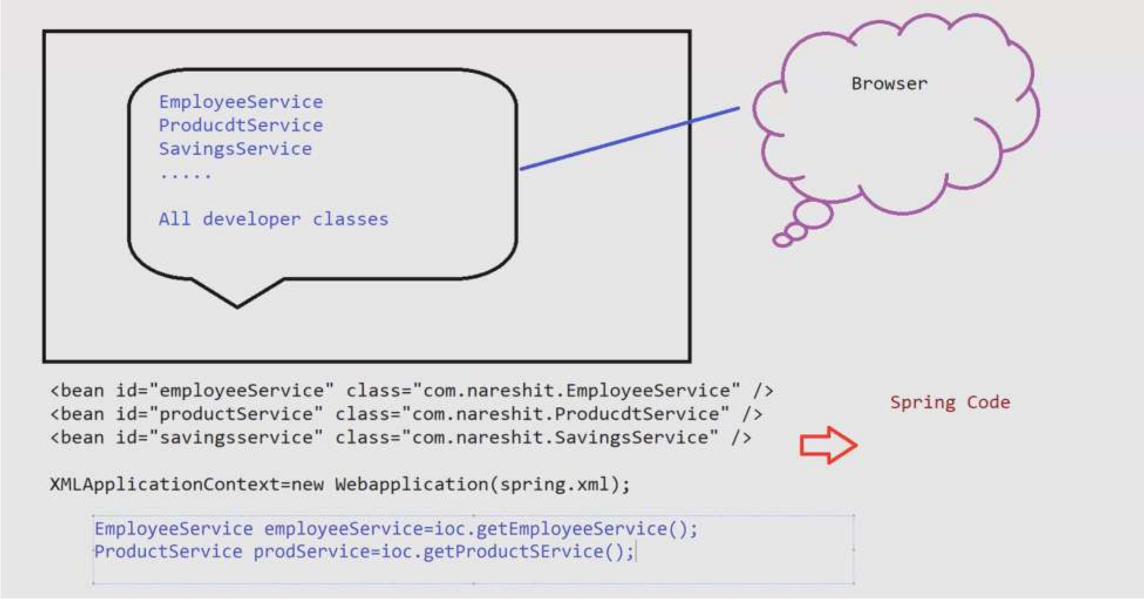
Functionality of Bootstarp class

- 1. It will create IoC Container --> Inversion of Control Container.
- 2. It will perform memory management for both the system classes, developer class.
    - management --> creating the object, maintaing the state of the object, destroying the object.
- 3. It will create a web application context

==

web application context

- web application will interact with all our developer classes,
- moved to temporary memory location in the web application, so that browser loads that classes
- so these classes should be to do that in spring we write the following

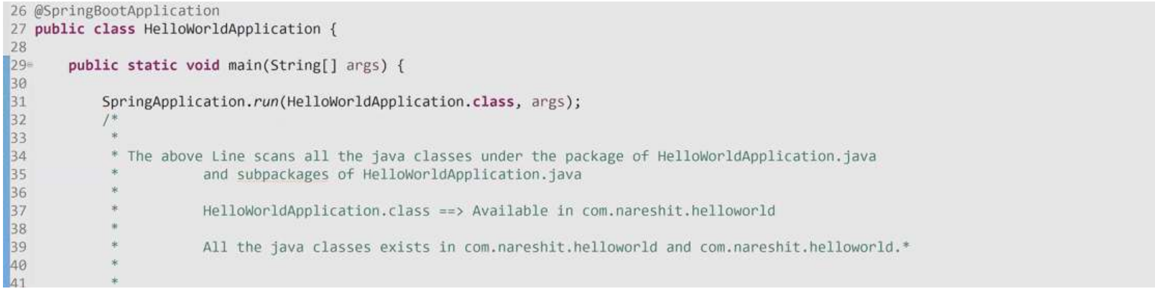


EmployeeService
ProducdtService
SavingsService
.....

All developer classes

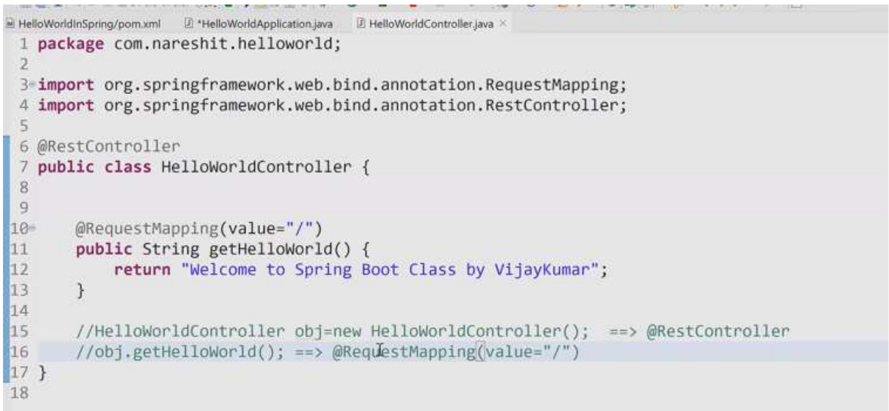
```
<bean id="employeeService" class="com.nareshit.EmployeeService" />
<bean id="productService" class="com.nareshit.ProducdtService" />
<bean id="savingsservice" class="com.nareshit.SavingsService" />

XMLApplicationContext=new Webapplication(spring.xml);

    EmployeeService employeeService=ioc.getEmployeeService();
    ProductService prodService=ioc.getProductSErvice();
```

All the classes written by developer moved to IoC Container in temporary web application memory



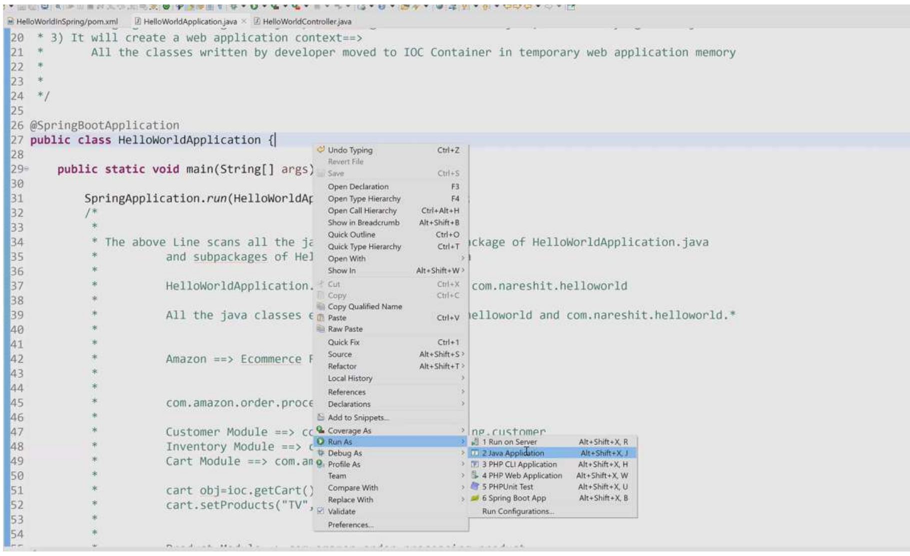
```
@SpringBootApplication
public class HelloWorldApplication {

    public static void main(String[] args) {

        SpringApplication.run(HelloWorldApplication.class, args);
        /*
         *
         * The above Line scans all the java classes under the package of HelloWorldApplication.java
         *          and subpackages of HelloWorldApplication.java
         *
         *          HelloWorldApplication.class ==> Available in com.nareshit.helloworld
         *
         *          All the java classes exists in com.nareshit.helloworld and com.nareshit.helloworld.*
         *
         *
```

- java classes available under the bootstrap package and bootstrap subpackage and move them to the IoC Container
- if a class outside the bootstrap package, that class is not managed by the IoC Container.

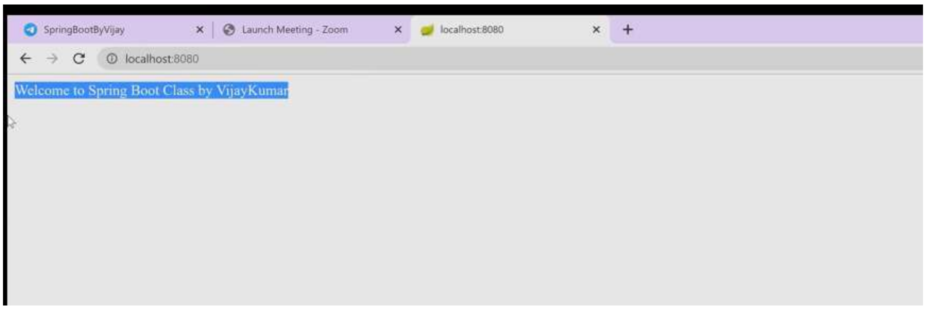


HelloWorldInSpring/pom.xml
*HelloWorldApplication.java
HelloWorldController.java

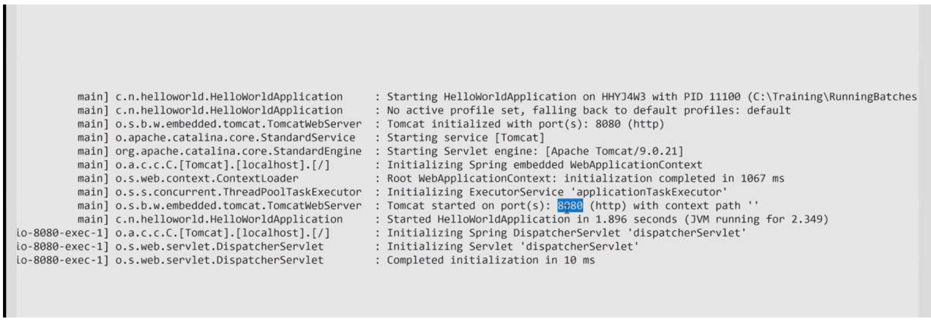
```
package com.nareshit.helloworld;

import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RestController;

@RestController
public class HelloWorldController {


    @RequestMapping(value="/")
    public String getHelloWorld() {
        return "Welcome to Spring Boot Class by VijayKumar";
    }

    //HelloWorldController obj=new HelloWorldController();  ==> @RestController
    //obj.getHelloWorld(); ==> @RequestMapping(value="/")
}
```



```
 * 3) It will create a web application context==>
 *       All the classes written by developer moved to IOC Container in temporary web application memory
 *
 *
 */

@SpringBootApplication
public class HelloWorldApplication {

    public static void main(String[] args)

        SpringApplication.run(HelloWorldAp
        /*
         *
         * The above Line scans all the ja                          ckage of HelloWorldApplication.java
         *          and subpackages of Hel
         *
         *          HelloWorldApplication.                          com.nareshit.helloworld
         *
         *          All the java classes e                          elloworld and com.nareshit.helloworld.*
         *
         *
         *          Amazon ==> Ecommerce F
         *
         *
         *          com.amazon.order.proce
         *
         *          Customer Module ==> cc                          ng.customer
         *          Inventory Module ==> c
         *          Cart Module ==> com.am
         *
         *          cart obj=ioc.getCart()
         *          cart.setProducts("TV",
         *
         *
```



Welcome to Spring Boot Class by VijayKumar



```
         main] c.n.helloworld.HelloWorldApplication      : Starting HelloWorldApplication on HHYJ4W3 with PID 11100 (C:\Training\RunningBatches
         main] c.n.helloworld.HelloWorldApplication      : No active profile set, falling back to default profiles: default
         main] o.s.b.w.embedded.tomcat.TomcatWebServer   : Tomcat initialized with port(s): 8080 (http)
         main] o.apache.catalina.core.StandardService    : Starting service [Tomcat]
         main] org.apache.catalina.core.StandardEngine   : Starting Servlet engine: [Apache Tomcat/9.0.21]
         main] o.a.c.c.C.[Tomcat].[localhost].[/]        : Initializing Spring embedded WebApplicationContext
         main] o.s.web.context.ContextLoader             : Root WebApplicationContext: initialization completed in 1067 ms
         main] o.s.s.concurrent.ThreadPoolTaskExecutor   : Initializing ExecutorService 'applicationTaskExecutor'
         main] o.s.b.w.embedded.tomcat.TomcatWebServer   : Tomcat started on port(s): 8080 (http) with context path ''
         main] c.n.helloworld.HelloWorldApplication      : Started HelloWorldApplication in 1.896 seconds (JVM running for 2.349)
io-8080-exec-1] o.a.c.c.C.[Tomcat].[localhost].[/]       : Initializing Spring DispatcherServlet 'dispatcherServlet'
io-8080-exec-1] o.s.web.servlet.DispatcherServlet        : Initializing Servlet 'dispatcherServlet'
io-8080-exec-1] o.s.web.servlet.DispatcherServlet        : Completed initialization in 10 ms
```

we didn't creat jar/war file,
we didn't install the tomcat,
we didn't deployed jar files in the tomcat
by default all the work is done by the framework