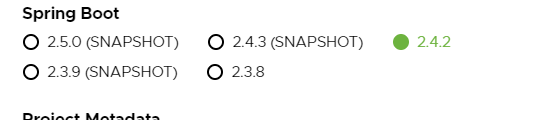
**Spring 5**

1. Download spring 5 jar and add lib to java projects : <https://repo.spring.io/release/org/springframework/spring/>
2. Copy paste ApplicationContext.xml
3. Create bean with bean id and class

**Spring Boot**

****

Dependancy :

1. Actuator
2. Devtools
3. Spring web
4. Spring jpa
5. Mysql
6. H2 database
7. Email
8. Spring data Jdbc api
9. Security
10. spring-boot-starter-validation
11. spring-boot-starter-cache
12. Lombok
13. spring-cloud-starter-config (clinet)
14. spring-cloud-starter-netflix-eureka-client
15. sweger

**Dependancy Injection:**

1. Propertiy injection
2. Setter Injection
3. Construtor injection

Try without spring with junit test and using spring

**Qualifier**

@Qualifier(“beanName”) first letter should be small

1. Use this for property ,setter,constructor

**Primary**

@Primary

**Profile**

Create one Envirment interface with tow implementation one for testing another for production . then add @component(“SameName”)

And then annotate with @Profile(“PROD”) and @Profile(“TEST”)

spring.profiles.active=PROD

which profile you want to use mention here.

**Default profile**

~~spring.profiles.active=PROD~~  remove this from property file

@Profile({"PROD","default"})

**@PostConstruct and @PreDestroy**

@PostConstruct annotation on method will run that method after bean creation

@PreDestroy method called when bean destroy

**Bean Type**

@Scope("prototype")

**Application properties**

logging.level.org.hibernate.stat=debug # enabling debug logger for specific package

spring.jackson.serialization.write-dates-as-timestamps**=**false # by setting this false it will not convert date into Timestamp long value

Logback.xml

<?xml version=*"1.0"* encoding=*"UTF-8"*?>

<configuration>

<property name=*"path"* value=*"log"*/>

<property name=*"archivedPath"* value=*"log/archived"*/>

<property name=*"pattern"* value=*"%d [%t:%p] [%C:%L] : %m%n"*/>

<property name=*"archivedFileNamePattern"* value=*"%d{yyyy-MM-dd}.%i.log.gz"*/>

<property name=*"maxfilesize"* value=*"10MB"*/>

<property name=*"totalSizeCap"* value=*"1GB"*/>

<property name=*"maxHistory"* value=*"5"*/>

<appender name=*"consoleAppender"* class=*"ch.qos.logback.core.ConsoleAppender"*>

<encoder>

<pattern>

${pattern}

</pattern>

</encoder>

</appender>

<appender name=*"consoleFileAppender"* class=*"ch.qos.logback.core.rolling.RollingFileAppender"*>

<file>${path}/sysout.log</file>

<rollingPolicy class=*"ch.qos.logback.core.rolling.SizeAndTimeBasedRollingPolicy"*>

<fileNamePattern>${archivedPath}/sysout.${archivedFileNamePattern}</fileNamePattern>

<maxFileSize>${maxfilesize}</maxFileSize>

<totalSizeCap>${totalSizeCap}</totalSizeCap>

<maxHistory>${*maxHistory*}</maxHistory>

</rollingPolicy>

<encoder>

<pattern>

${pattern}

</pattern>

</encoder>

</appender>

<root level=*"INFO"*>

<appender-ref ref=*"consoleAppender"*/>

<appender-ref ref=*"consoleFileAppender"*/>

</root>

</configuration>

%d [%t-%p] [%C : %L] - %m%n

%d -- date

%t --- thread

%p --- level

%C ---- class path

%L ---- line number

%m --- msg and %n --- new line

%M ---- Method Name

Email using spring boot

<dependency>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-starter-mail</artifactId>

</dependency>

spring.mail.host=smtp.gmail.com

spring.mail.port=587

spring.mail.username=daryabusiness@gmail.com

spring.mail.password=\*\*\*\*\*\*\*\*

spring.mail.properties.mail.smtp.starttls.enable=true

@Autowired

JavaMailSender mailsender;

**public** **void** sendFile(String To,String Text,String Report) **throws** MessagingException {

MimeMessage mimeMessage=mailsender.createMimeMessage();

MimeMessageHelper helper=**new** MimeMessageHelper(mimeMessage,**true**);

helper.setFrom(from);

helper.setTo(To);

helper.setSubject(subject);

helper.setText(Text);

FileSystemResource rs=**new** FileSystemResource(**new** File(Report));

helper.addAttachment("bill.pdf", rs);

mailsender.send(mimeMessage);

}

Send Html Email :

helper.setText(msgBody,**true**);

msgBody 🡪 must be HTML String all other conten same as perviuse just send true;

HTML in line connect

String msgBody= "<html><body>"+dto.getMailContent()+

"<br>"+

"<img src='cid:identifier1234'></body></html>"

+ "<br><br><br>"+(dto.getSignature()!=**null** && !dto.getSignature().trim().equals("")?dto.getSignature():signature);

<code other same like privous

>

File file=**new** File("E:\\Learning\\Projects\\Resturant Billing System\\bws\\BillingSystemBackend\\src\\main\\resources\\invoice\_logo.png");

FileSystemResource res=**new** FileSystemResource(file);

helper.addInline("identifier1234", res);

need to pass same content id in helper and template like identifier1234

Async Functionality Method

@EnableAsync

**public** **class** LoginApplication **implements** CommandLineRunner{

@Component

**public** **class** AsyncService {

@Async("test1")

**public** Future<String> testAsyncMethod() **throws** InterruptedException {

System.***out***.println("testAsyncMethod start "+Thread.*currentThread*().getName());

Thread.*sleep*(10000);

System.***out***.println("testAsyncMethod complete "+Thread.*currentThread*().getName());

**return** **new** AsyncResult<String>("Chal gya");

}

@Async("test2")

**public** **void** testAsyncMethod2() **throws** InterruptedException {

System.***out***.println("testAsyncMethod2start "+Thread.*currentThread*().getName());

Thread.*sleep*(10000);

System.***out***.println("testAsyncMethod2 complete "+Thread.*currentThread*().getName());

}

}

@Configuration

**public** **class** AyncConfig {

@Bean(name="test1")

**public** Executor test1() {

ThreadPoolTaskExecutor th=**new** ThreadPoolTaskExecutor();

th.setCorePoolSize(5);

th.setMaxPoolSize(5);

th.setThreadNamePrefix("Test ");

th.initialize();

**return** th;

}

@Bean(name="test2")

**public** Executor test2() {

ThreadPoolTaskExecutor th=**new** ThreadPoolTaskExecutor();

th.setCorePoolSize(2);

th.setMaxPoolSize(2);

th.setThreadNamePrefix("Prod :");

th.initialize();

**return** th;

}

}

----------function shuld be only use when when you need to perform task once all thread process

@CrossOrigin

@GetMapping("test")

**public** String test() **throws** Exception {

Future<String> obj=asyncservice.testAsyncMethod();

**while**(**true**) {

**if**(obj.isDone()) {

System.***out***.println(obj.get());

**break**;

}

}

**return** "Hello world";

}

**Unit Testing in spring boot**

@SpringBootTest

This is Example of equals

@TestMethodOrder(OrderAnnotation.**class**)

**class** BillingSystemBackendApplicationTests {

@Test

@Order(1)

**public** **void** adminUserExist() {

UserRequestDTO user=**new** UserRequestDTO();

user.setUsername("Admin");

user.setPassword("Admin");

ResponseDTO respons=**this**.billingProcess.getUserDetails(user);

Assertions.*assertNotEquals*(**null**, respons.getData());

}

This is Example of throw

@Test

@Order(6)



**public** **void** whenUserNameEmpty() {

MandatoryFieldException expt=

Assertions.*assertThrows*(MandatoryFieldException.**class**,()->userBusinessLogic.getUserDetails("", "Arya$786"));

}

Filter

@Component

@Order(1)

**public** **class** LoginFilterOne **implements** Filter{

@Override

**public** **void** doFilter(ServletRequest request, ServletResponse response, FilterChain chain)

**throws** IOException, ServletException {

HttpServletRequest httprequest=(HttpServletRequest)request;

System.***out***.println(httprequest.getRequestURI());

chain.doFilter(request, response);

}

}

**@ConfigurationProperties**

@Component

@ConfigurationProperties("paytm.payment.sandbox")

**public** **class** PaytmPropConfig {



**Cache**

<dependency>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-starter-cache</artifactId>

</dependency>

@EnableCaching ------------- most important annotion

**import** org.springframework.cache.annotation.CacheEvict;

**import** org.springframework.cache.annotation.Cacheable;

@GetMapping("getData2")

@Cacheable("getData2")

**public** List<String> getData2() **throws** InterruptedException{

Thread.*sleep*(5000);

**return** Arrays.*asList*("HIII","by");

}

@GetMapping("clearAll")

@CacheEvict({"getData","getData2"})

**public** String clearData1() {

**return** "clear 1";

}

**Rest API validation**

<dependency>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-starter-validation</artifactId>

</dependency>

@PostMapping("sendData5")

**public** **void** testValidationAPI(@Valid @RequestBody ValidationTestDO validdo) {

System.***out***.println(validdo);

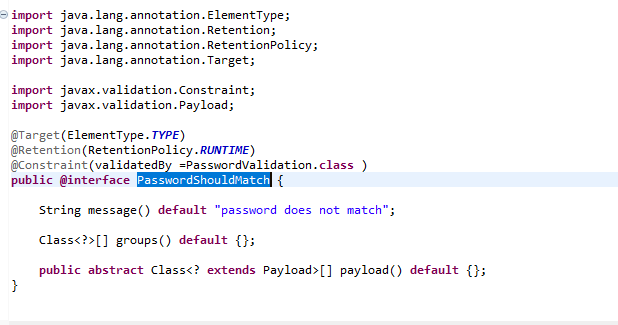
}



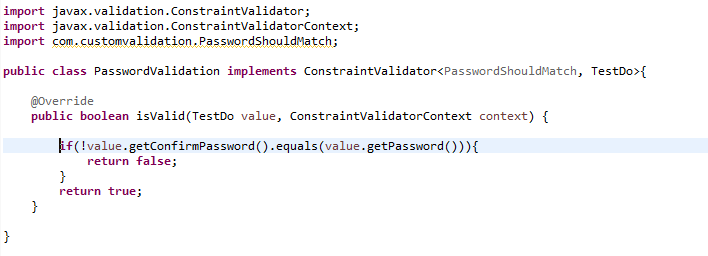
**Custom validation**

****

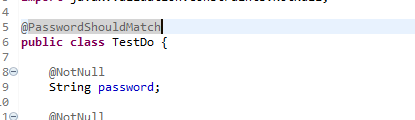
**Step 1.Create annotation**

****

**Step 2 . create validation**

****

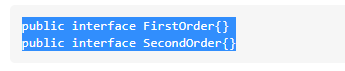
**Step 3 apply validation.**

****

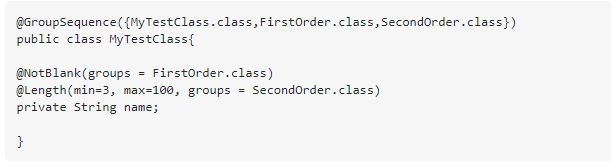
**How to create ORDER of validation.**

@costomValidation(groups=”FirstOrder.clss”)

1. Create Interface



2.



Pathparam vs request param

http://localhost:8081/N/readProperties/A

// path param

@GetMapping("readProperties/{key}")

**public** String readProperties(@PathVariable("key")String key) {

System.***out***.println("readProperties1");

**return** key;

}

http://localhost:8081/N/readProperties?key=11

// @RequestParm

@GetMapping("readProperties")

**public** String readProperties2(@RequestParam("key")String key) {

System.***out***.println("readProperties2");

**return** key;

}

Output:

**Schedular**

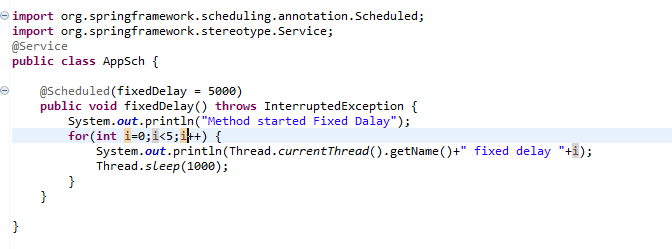
Step 1:Enable scheudlar

@EnableScheduling

**public** **class** CurrencyExchangeApplication {

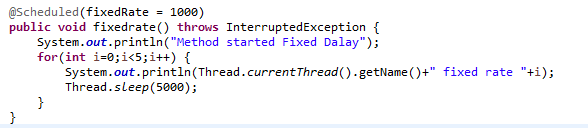
**Type 1 . Fixed delay**

* **Wait for fixed time after completion of first execution.**

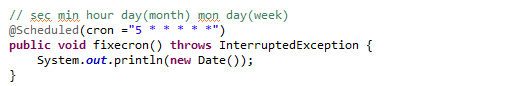
****

**Type 2 . Fixed rate**

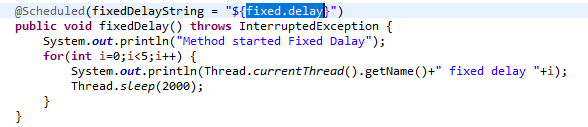
* **Run at fixed rate but wait for pevious execution complete**

****

**Type 2 . cron job.**

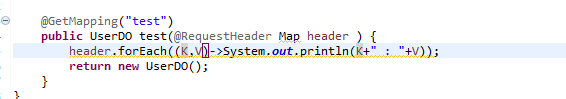


**Type 3 . refer from peerpert file**

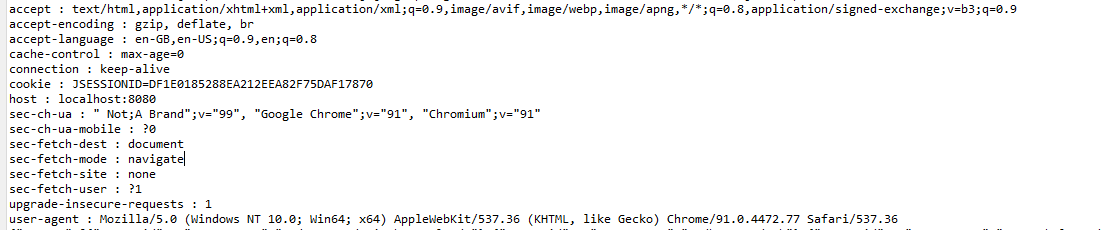
****

****

**How to Recive Header Parameter in rest Request**



String common header



Steps

1.add all dependency

2. create in memeory user first and test