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NPM : 1606954754

## Tutorial Routing & Controller pada Project Spring Boot

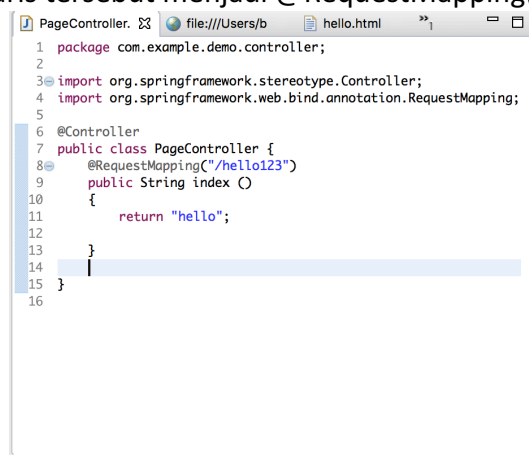
### A. Ringkasan Materi

- Menampilkan HelloWorld menggunakan flag `@RequestMapping` untuk handle web request
- Menangkap parameter melalui GET request menggunakan flag `@RequestParam` dan menambahkan parameter tersebut pada request url.
- Memetakan request parameter kedalam segmen URL menggunakan flag `@PathVariable`

### B. Jawaban Tutorial

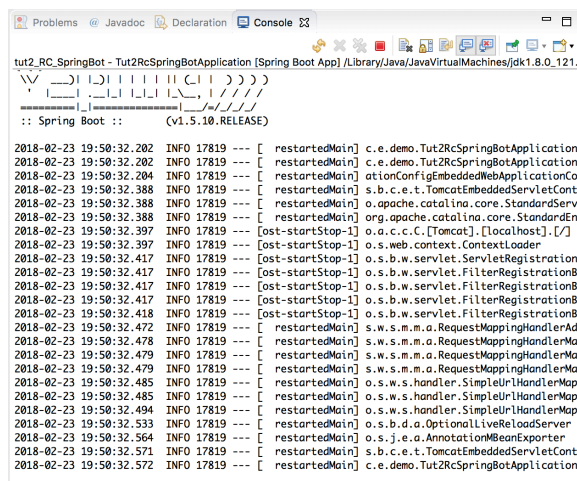
#### ❖ Project Hello World

1. Ganti baris tersebut menjadi `@RequestMapping("/hello123")`



```
1 package com.example.demo.controller;  
2  
3 import org.springframework.stereotype.Controller;  
4 import org.springframework.web.bind.annotation.RequestMapping;  
5  
6 @Controller  
7 public class PageController {  
8     @RequestMapping("/hello123")  
9     public String index ()  
10    {  
11        return "hello";  
12    }  
13  
14 }  
15  
16
```

Run

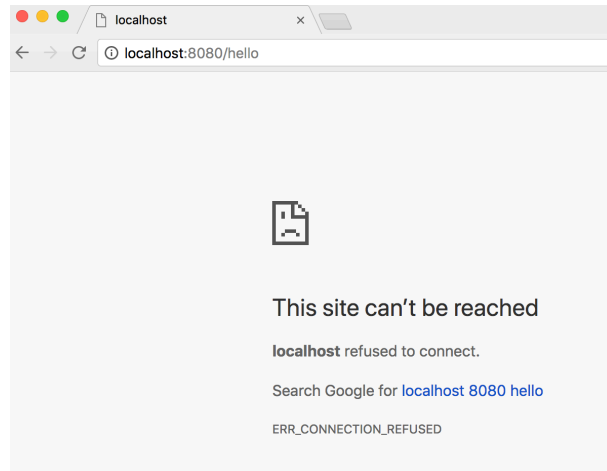


```
2018-02-23 19:50:32.202 INFO 17819 --- [ restartedMain] c.e.demo.Tut2RcSpringBootApplication  
2018-02-23 19:50:32.202 INFO 17819 --- [ restartedMain] c.e.demo.Tut2RcSpringBootApplication  
2018-02-23 19:50:32.204 INFO 17819 --- [ restartedMain] ationConfigEmbeddedWebApplicationCor  
2018-02-23 19:50:32.388 INFO 17819 --- [ restartedMain] s.b.c.e.t.TomcatEmbeddedServletCont  
2018-02-23 19:50:32.388 INFO 17819 --- [ restartedMain] o.apache.catalina.core.StandardSeri  
2018-02-23 19:50:32.388 INFO 17819 --- [ restartedMain] org.apache.catalina.core.StandardEng  
2018-02-23 19:50:32.397 INFO 17819 --- [ost-startStop-1] o.a.c.c.c.[Tomcat].[localhost].[/]  
2018-02-23 19:50:32.397 INFO 17819 --- [ost-startStop-1] o.s.web.context.ContextLoader  
2018-02-23 19:50:32.417 INFO 17819 --- [ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBe  
2018-02-23 19:50:32.417 INFO 17819 --- [ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBe  
2018-02-23 19:50:32.417 INFO 17819 --- [ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBe  
2018-02-23 19:50:32.418 INFO 17819 --- [ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBe  
2018-02-23 19:50:32.472 INFO 17819 --- [ restartedMain] s.w.s.m.m.a.RequestMappingHandlerAd  
2018-02-23 19:50:32.478 INFO 17819 --- [ restartedMain] s.w.s.m.m.a.RequestMappingHandlerMap  
2018-02-23 19:50:32.479 INFO 17819 --- [ restartedMain] s.w.s.m.m.a.RequestMappingHandlerMap  
2018-02-23 19:50:32.479 INFO 17819 --- [ restartedMain] s.w.s.m.m.a.RequestMappingHandlerMap  
2018-02-23 19:50:32.485 INFO 17819 --- [ restartedMain] o.s.w.s.handler.SimpleUrlHandlerMap  
2018-02-23 19:50:32.485 INFO 17819 --- [ restartedMain] o.s.w.s.handler.SimpleUrlHandlerMap  
2018-02-23 19:50:32.494 INFO 17819 --- [ restartedMain] o.s.w.s.handler.SimpleUrlHandlerMap  
2018-02-23 19:50:32.533 INFO 17819 --- [ restartedMain] o.s.b.d.a.OptionalLiveReloadServer  
2018-02-23 19:50:32.564 INFO 17819 --- [ restartedMain] o.s.j.e.a.AnnotationMethodExporter  
2018-02-23 19:50:32.571 INFO 17819 --- [ restartedMain] s.b.c.e.t.TomcatEmbeddedServletCont  
2018-02-23 19:50:32.572 INFO 17819 --- [ restartedMain] c.e.demo.Tut2RcSpringBootApplication
```

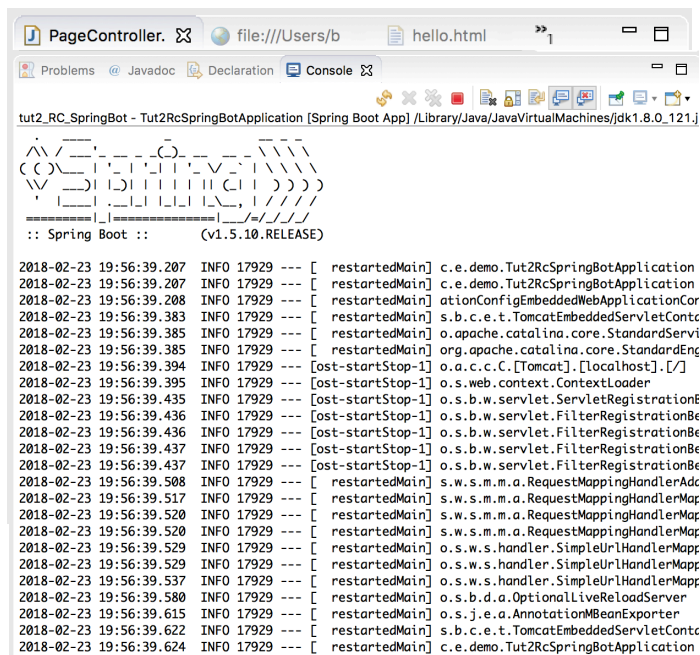
Compile tidak error

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Saat membuka page hello.html

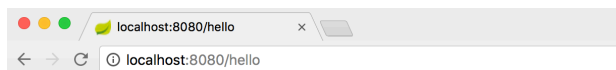


## 2. Ganti nama method index() dengan nama method hello()



Run

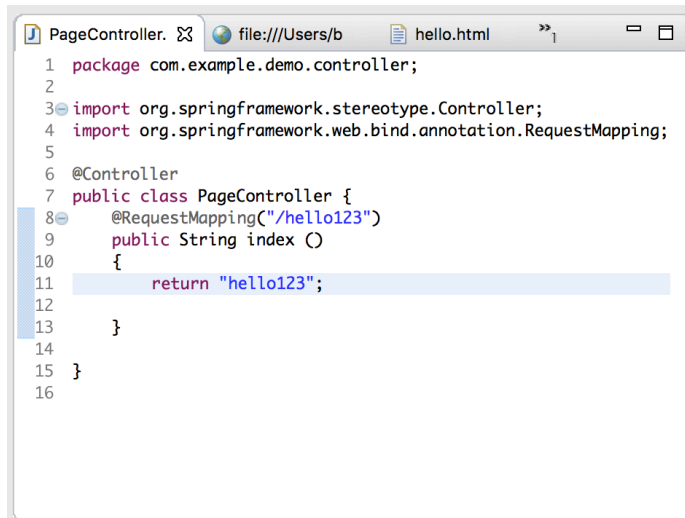
Compile tidak error



Saat membuka page hello.html

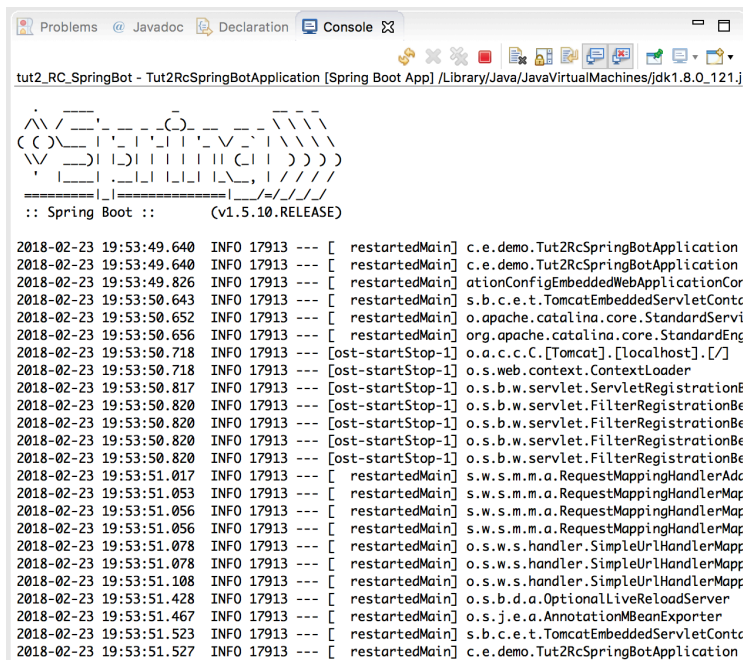
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### 3. Ganti string return type menjadi return "hello123";



```
1 package com.example.demo.controller;  
2  
3 import org.springframework.stereotype.Controller;  
4 import org.springframework.web.bind.annotation.RequestMapping;  
5  
6 @Controller  
7 public class PageController {  
8     @RequestMapping("/hello123")  
9     public String index ()  
10    {  
11        return "hello123";  
12    }  
13 }  
14  
15 }  
16
```

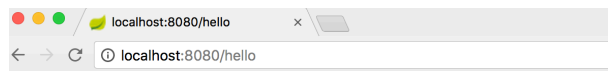
Run



```
tut2_RC_SpringBot - Tut2RcSpringBotApplication [Spring Boot App] /Library/Java/JavaVirtualMachines/jdk1.8.0_121.j...  
  
:: Spring Boot :: (v1.5.10.RELEASE)  
  
2018-02-23 19:53:49.640 INFO 17913 --- [ restartedMain] c.e.demo.Tut2RcSpringBotApplication  
2018-02-23 19:53:49.640 INFO 17913 --- [ restartedMain] c.e.demo.Tut2RcSpringBotApplication  
2018-02-23 19:53:49.826 INFO 17913 --- [ restartedMain] ationConfigEmbeddedWebApplicationCor  
2018-02-23 19:53:50.643 INFO 17913 --- [ restartedMain] s.b.c.e.t.TomcatEmbeddedServletConto  
2018-02-23 19:53:50.652 INFO 17913 --- [ restartedMain] o.apache.catalina.core.StandardServi  
2018-02-23 19:53:50.656 INFO 17913 --- [ restartedMain] org.apache.catalina.core.StandardEng  
2018-02-23 19:53:50.718 INFO 17913 --- [ost-startStop-1] o.a.c.c.C.[Tomcat].[localhost].[/]  
2018-02-23 19:53:50.718 INFO 17913 --- [ost-startStop-1] o.s.web.context.ContextLoader  
2018-02-23 19:53:50.817 INFO 17913 --- [ost-startStop-1] o.s.b.w.servlet.ServletRegistrationBe  
2018-02-23 19:53:50.820 INFO 17913 --- [ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBe  
2018-02-23 19:53:50.820 INFO 17913 --- [ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBe  
2018-02-23 19:53:50.820 INFO 17913 --- [ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBe  
2018-02-23 19:53:50.820 INFO 17913 --- [ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBe  
2018-02-23 19:53:51.017 INFO 17913 --- [ restartedMain] s.w.s.m.m.a.RequestMappingHandlerAdc  
2018-02-23 19:53:51.053 INFO 17913 --- [ restartedMain] s.w.s.m.m.a.RequestMappingHandlerMap  
2018-02-23 19:53:51.056 INFO 17913 --- [ restartedMain] s.w.s.m.m.a.RequestMappingHandlerMap  
2018-02-23 19:53:51.056 INFO 17913 --- [ restartedMain] s.w.s.m.m.a.RequestMappingHandlerMap  
2018-02-23 19:53:51.078 INFO 17913 --- [ restartedMain] o.s.w.s.handler.SimpleUrlHandlerMap  
2018-02-23 19:53:51.078 INFO 17913 --- [ restartedMain] o.s.w.s.handler.SimpleUrlHandlerMap  
2018-02-23 19:53:51.108 INFO 17913 --- [ restartedMain] o.s.w.s.handler.SimpleUrlHandlerMap  
2018-02-23 19:53:51.428 INFO 17913 --- [ restartedMain] o.s.b.d.a.OptionalLiveReloadServer  
2018-02-23 19:53:51.467 INFO 17913 --- [ restartedMain] o.s.j.e.a.AnnotationMBeanExporter  
2018-02-23 19:53:51.523 INFO 17913 --- [ restartedMain] s.b.c.e.t.TomcatEmbeddedServletConto  
2018-02-23 19:53:51.527 INFO 17913 --- [ restartedMain] c.e.demo.Tut2RcSpringBotApplication
```

Compile tidak error

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## Whitelabel Error Page

This application has no explicit mapping for /error, so you are seeing this as a fallback.

Fri Feb 23 19:58:34 WIB 2018  
There was an unexpected error (type=Not Found, status=404).  
No message available

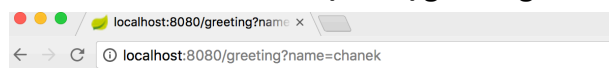
Saat membuka page hello.html

Menandakan apakah String yang di-return tersebut?

- menandakan file html yang akan di jalankan ketika melakukan return, jadi string yang direturn harus sama dengan nama file html.

### ❖ Request Parameter (Query String)

1. Ubah nilai anotasi RequestMapping dari `"/greeting"` menjadi `"/hello/greeting"`  
Hasil saat membuka **localhost:8080/hello/greeting?name=chanek**



## Whitelabel Error Page

This application has no explicit mapping for /error, so you are seeing this as a fallback.

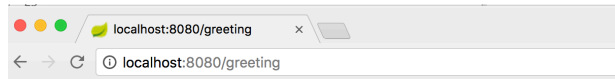
Fri Feb 23 20:18:23 WIB 2018  
There was an unexpected error (type=Not Found, status=404).  
No message available

2. Kembali meng-akses **localhost:8080/greeting** setelah mengembalikan request map menjadi `@RequestMapping("/greeting")`



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Buka page greeting.html

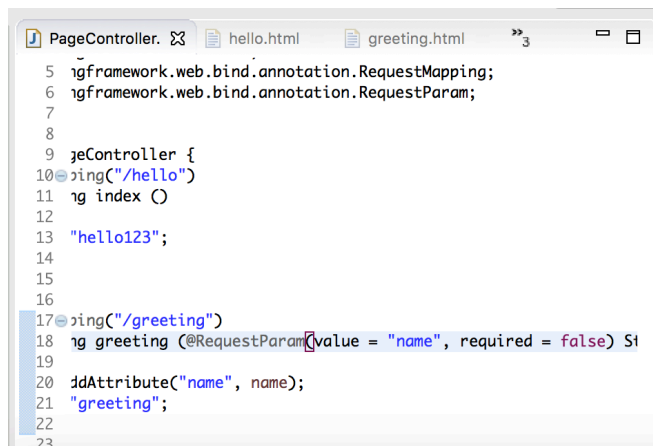


## Whitelabel Error Page

This application has no explicit mapping for /error, so you are seeing this as a fallback.

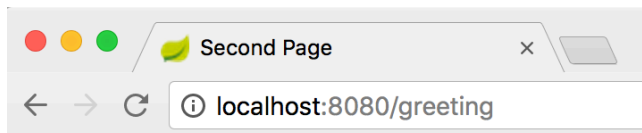
Fri Feb 23 20:19:00 WIB 2018  
There was an unexpected error (type=Bad Request, status=400).  
Required String parameter 'name' is not present

Ubah header method greeting



Run

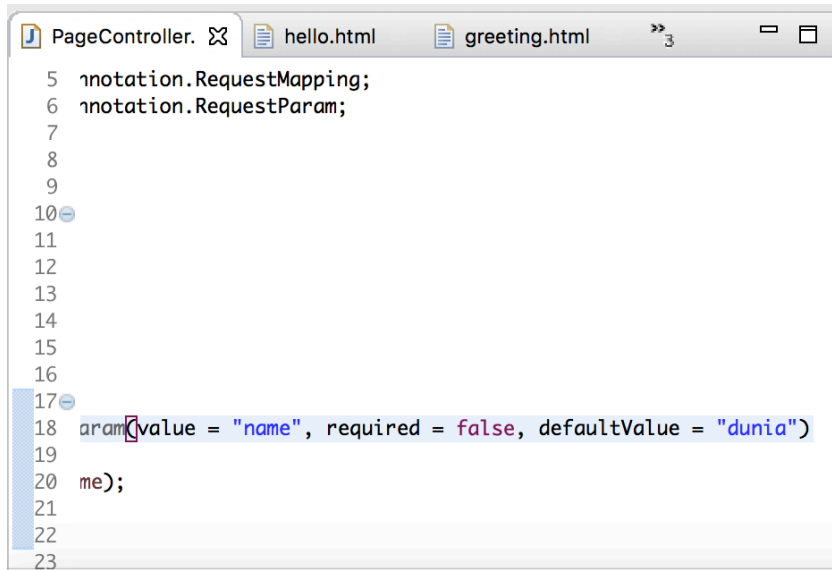
Hasil pada page greeting.html



Selamat datang null!

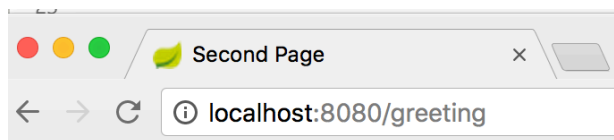
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NPM : 1606954754

### 3. Ubah header method greeting



```
5 @notation.RequestMapping;  
6 @notation.RequestParam;  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18 @RequestParam(value = "name", required = false, defaultValue = "dunia")  
19  
20 me);  
21  
22  
23
```

Hasil pada page greeting.html



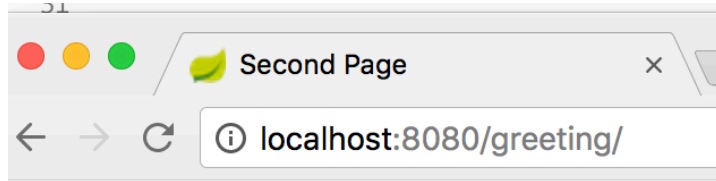
Selamat datang dunia!

4. Mengapa tulisan “Sapaan untuk user” tidak pernah muncul?
- karena tulisan tersebut sudah tertimpa atau di-replace oleh text selamat datang.

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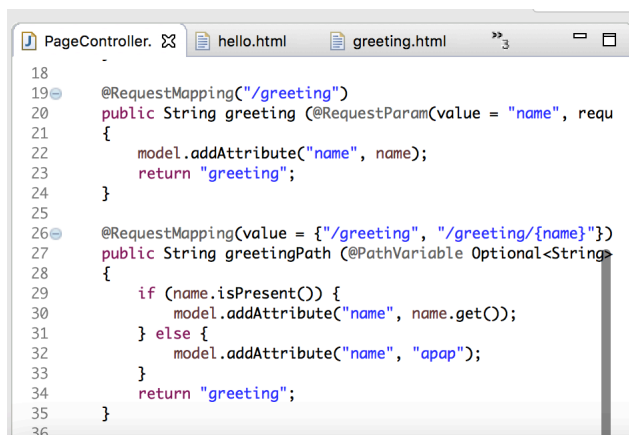
## ❖ Path Variable

1. Akses **localhost:8080/greeting/**

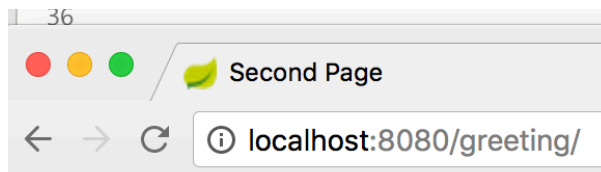


Selamat datang dunia!

Ubah method greetingPath



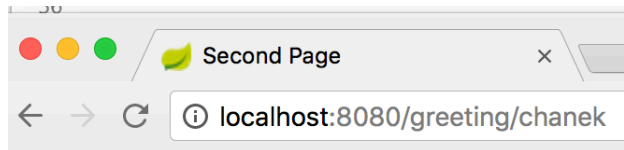
Hasil akses **localhost:8080/greeting/**



Selamat datang apap!

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Hasil akses **localhost:8080/greeting/chanek**



Selamat datang chanek!

#### ❖ Latihan Operasi Perkalian

```
PageController.  greeting.html  perkalian.html  5  [icons]
27  public String greetingPath (@PathVariable Optional<String>
28  {
29      if (name.isPresent()) {
30          model.addAttribute("name", name.get());
31      } else {
32          model.addAttribute("name", "apap");
33      }
34      return "greeting";
35  }
36
37  @RequestMapping("/perkalian")
38  public String opPerkalian (@RequestParam (value = "a", req
39  {
40      model.addAttribute("a", a);
41      model.addAttribute("b", b);
42      model.addAttribute("result", a*b);
43      return "perkalian";
44  }
45
46  }
47
```

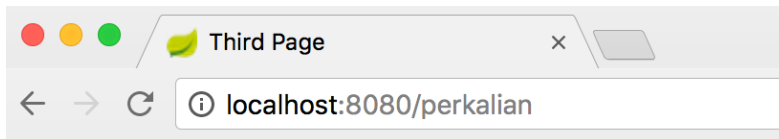
Page perkalian.html

```
PageController.  greeting.html  perkalian.html  5  [icons]
1  <!DOCTYPE html>
2  <html xmlns:th="http://www.thymeleaf.org">
3      <head>
4          <title>Third Page</title>
5      </head>
6      <body>
7          <h1> Perkalian </h1>
8          <p th:text="${a} + 'x' + ${b} + '=' + ${result}"> </p>
9      </body>
10 </html>
```



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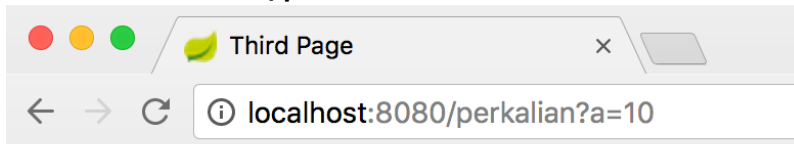
Hasil **localhost:8080/perkalian**



# Perkalian

0x0=0

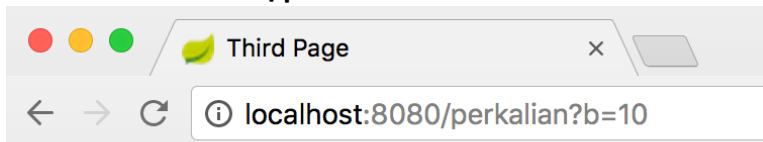
Hasil **localhost:8080/perkalian ?a=10**



# Perkalian

10x0=0

Hasil **localhost:8080/perkalian ?b=10**



# Perkalian

0x10=0

Nama : Budi Indrawa

NPM : 1606954754

Hasil **localhost:8080/perkalian?a=10&b=10**

