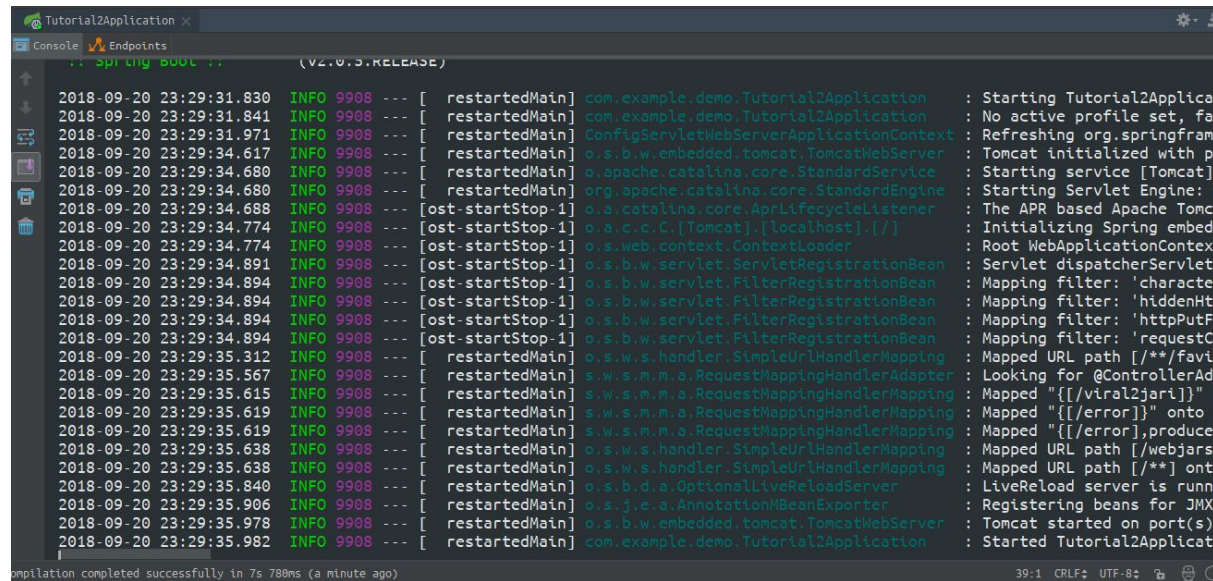


## Latihan Project Viral

1. Ganti baris `@RequestMapping("/viral")` menjadi `@RequestMapping("/viral2jari")`.
  - a. Apakah terjadi *compile error* ?

Jawab : Tidak. Program berjalan normal.



```
2018-09-20 23:29:31.830 INFO 9908 --- [ restartedMain] com.example.demo.Tutorial2Application : Starting Tutorial2Application
2018-09-20 23:29:31.841 INFO 9908 --- [ restartedMain] com.example.demo.Tutorial2Application : No active profile set, falling back to default profiles: default
2018-09-20 23:29:31.971 INFO 9908 --- [ restartedMain] ConfigServletWebServerApplicationContext : Refreshing org.springframework.web.servlet.support.annotation.AnnotationMethodMappingExporter
2018-09-20 23:29:34.617 INFO 9908 --- [ restartedMain] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat initialized with port(s) 8080
2018-09-20 23:29:34.680 INFO 9908 --- [ restartedMain] org.apache.catalina.core.StandardService : Starting service [Tomcat]
2018-09-20 23:29:34.680 INFO 9908 --- [ restartedMain] org.apache.catalina.core.StandardEngine : Starting Servlet Engine: org.apache.catalina.core.StandardEngine
2018-09-20 23:29:34.688 INFO 9908 --- [ restartedMain] o.a.catalina.core.AprLifecycleListener : The APR based Apache Tomcat Native DSO is available at: http://tomcat.apache.org/native-dso.html
2018-09-20 23:29:34.774 INFO 9908 --- [ restartedMain] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring embedded WebApplicationContext
2018-09-20 23:29:34.774 INFO 9908 --- [ restartedMain] o.s.web.context.ContextLoader : Root WebApplicationContext: initialization completed
2018-09-20 23:29:34.891 INFO 9908 --- [ restartedMain] o.s.b.w.servlet.ServletRegistrationBean : Servlet dispatcherServlet
2018-09-20 23:29:34.894 INFO 9908 --- [ restartedMain] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'characterEncodingFilter'
2018-09-20 23:29:34.894 INFO 9908 --- [ restartedMain] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'hiddenHttpMethodFilter'
2018-09-20 23:29:34.894 INFO 9908 --- [ restartedMain] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'httpPutFormContentFilter'
2018-09-20 23:29:34.894 INFO 9908 --- [ restartedMain] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'requestContextFilter'
2018-09-20 23:29:35.312 INFO 9908 --- [ restartedMain] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/]**/favicon.ico
2018-09-20 23:29:35.567 INFO 9908 --- [ restartedMain] s.w.s.m.m.a.RequestMappingHandlerAdapter : Looking for @ControllerAdvice
2018-09-20 23:29:35.615 INFO 9908 --- [ restartedMain] s.w.s.m.m.a.RequestMappingHandlerMapping : Mapped "[]"
2018-09-20 23:29:35.619 INFO 9908 --- [ restartedMain] s.w.s.m.m.a.RequestMappingHandlerMapping : Mapped "[]"
2018-09-20 23:29:35.619 INFO 9908 --- [ restartedMain] s.w.s.m.m.a.RequestMappingHandlerMapping : Mapped "[]"
2018-09-20 23:29:35.619 INFO 9908 --- [ restartedMain] s.w.s.m.m.a.RequestMappingHandlerMapping : Mapped "[]"
2018-09-20 23:29:35.638 INFO 9908 --- [ restartedMain] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/]**/favicon.ico
2018-09-20 23:29:35.840 INFO 9908 --- [ restartedMain] o.s.b.d.a.OptionalLiveReloadServer : LiveReload server is running on port 35729
2018-09-20 23:29:35.906 INFO 9908 --- [ restartedMain] o.s.j.e.s.AnnotationMethodMappingExporter : Registering beans for JMX inspection
2018-09-20 23:29:35.978 INFO 9908 --- [ restartedMain] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port(s) 8080
2018-09-20 23:29:35.982 INFO 9908 --- [ restartedMain] com.example.demo.Tutorial2Application : Started Tutorial2Application
compilation completed successfully in 7s 780ms (a minute ago)
```

- b. Coba akses `localhost:8080/viral`, berikan alasan dan jelaskan apa yang terjadi.

Jawab : Terjadi *404 Not Found* dan ditampilkan *white label error page*. Hal ini terjadi karena tidak adanya routing yang *handling* `/viral`.

## Whitelabel Error Page

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

Thu Sep 20 23:31:39 ICT 2018

There was an unexpected error (type=Not Found, status=404).

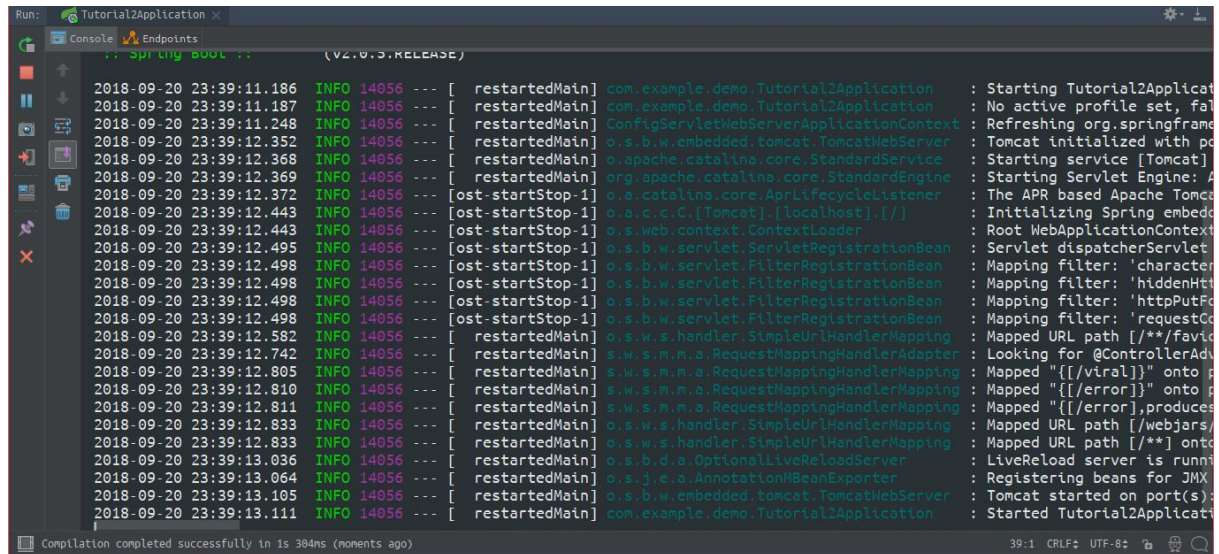
No message available

- c. Apakah Kegunaan `@RequestMapping("/viral")`

Jawab :

Membuat *routing* untuk `/viral`. Sehingga apabila alamat tersebut diakses , aplikasi tahu harus melakukan apa , serta mengembalikan apa.

2. Ganti nama method `index()` menjadi nama method `viral()`
- a. Apakah terjadi compile error?
- Jawab : Tidak.



```
Run: Tutorial2Application x
Console Endpoints
Spring Boot (V2.0.5.RELEASE)

2018-09-20 23:39:11.186 INFO 14056 --- [ restartedMain] com.example.demo.Tutorial2Application : Starting Tutorial2Applicat
2018-09-20 23:39:11.187 INFO 14056 --- [ restartedMain] com.example.demo.Tutorial2Application : No active profile set, fal
2018-09-20 23:39:11.248 INFO 14056 --- [ restartedMain] ConfigServletWebServerApplicationContext : Refreshing org.springframework
2018-09-20 23:39:12.352 INFO 14056 --- [ restartedMain] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat initialized with po
2018-09-20 23:39:12.368 INFO 14056 --- [ restartedMain] o.apache.catalina.core.StandardService : Starting service [Tomcat]
2018-09-20 23:39:12.369 INFO 14056 --- [ restartedMain] org.apache.catalina.core.StandardEngine : Starting Servlet Engine: A
2018-09-20 23:39:12.372 INFO 14056 --- [ restartedMain] o.a.catalina.core.AprLifecycleListener : The APR based Apache Tomcat
2018-09-20 23:39:12.443 INFO 14056 --- [ost-startStop-1] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring embedde
2018-09-20 23:39:12.443 INFO 14056 --- [ost-startStop-1] o.s.web.context.ContextLoader : Root WebApplicationContext
2018-09-20 23:39:12.495 INFO 14056 --- [ost-startStop-1] o.s.b.w.servlet.ServletRegistrationBean : Servlet dispatcherServlet
2018-09-20 23:39:12.498 INFO 14056 --- [ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'character
2018-09-20 23:39:12.498 INFO 14056 --- [ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'hiddenHttp
2018-09-20 23:39:12.498 INFO 14056 --- [ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'httpPutFe
2018-09-20 23:39:12.498 INFO 14056 --- [ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'requestCo
2018-09-20 23:39:12.582 INFO 14056 --- [ restartedMain] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/**/favic
2018-09-20 23:39:12.742 INFO 14056 --- [ restartedMain] s.w.s.m.m.a.RequestMappingHandlerAdapter : Looking for @ControllerAdv
2018-09-20 23:39:12.805 INFO 14056 --- [ restartedMain] s.w.s.m.m.a.RequestMappingHandlerMapping : Mapped "[/viral]" onto p
2018-09-20 23:39:12.810 INFO 14056 --- [ restartedMain] s.w.s.m.m.a.RequestMappingHandlerMapping : Mapped "[/error]" onto p
2018-09-20 23:39:12.811 INFO 14056 --- [ restartedMain] s.w.s.m.m.a.RequestMappingHandlerMapping : Mapped "[/error],produces
2018-09-20 23:39:12.833 INFO 14056 --- [ restartedMain] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/**] onto
2018-09-20 23:39:12.833 INFO 14056 --- [ restartedMain] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/**] onto
2018-09-20 23:39:13.036 INFO 14056 --- [ restartedMain] o.s.b.d.a.OptionalLiveReloadServer : LiveReload server is runni
2018-09-20 23:39:13.064 INFO 14056 --- [ restartedMain] o.s.j.e.a.AnnotationMBeanExporter : Registering beans for JMX
2018-09-20 23:39:13.105 INFO 14056 --- [ restartedMain] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port(s)
2018-09-20 23:39:13.111 INFO 14056 --- [ restartedMain] com.example.demo.Tutorial2Application : Started Tutorial2Applicati

Compilation completed successfully in 1s 384ms (moments ago) 39:1 CRLF UTF-8
```

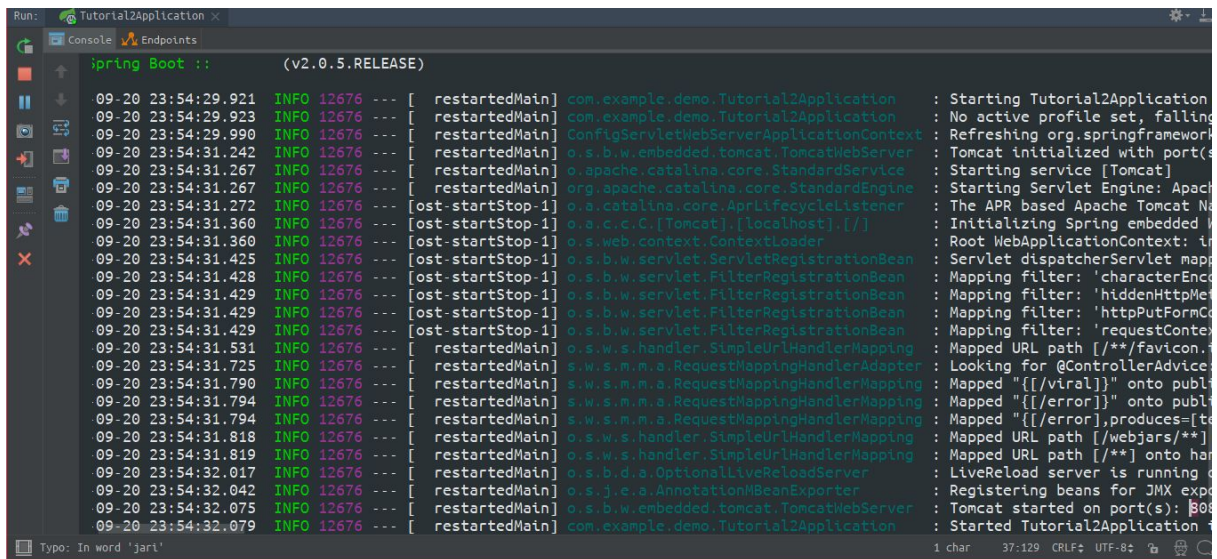
- b. Coba akses `localhost:8080/viral`, berikan alasan dan jelaskan apa yang terjadi.

**Mashook Pak Ekooo!!**

Berjalan normal dan mengembalikan isi dari `viral.html`. Pada dasarnya nama methodnya bisa apa saja selama *distate* bahwa *mapping* seperti apa yang akan dihandle oleh method dari *controller class* tersebut.

3. Ganti string return type menjadi menjadi return "viral2jari"
- a. Apakah terjadi compile error?

Jawab : Tidak.



```
Run: Tutorial2Application x
Console Endpoints
(Spring Boot :: (v2.0.5.RELEASE))

09-20 23:54:29.921 INFO 12676 --- [ restartedMain] com.example.demo.Tutorial2Application : Starting Tutorial2Application
09-20 23:54:29.923 INFO 12676 --- [ restartedMain] com.example.demo.Tutorial2Application : No active profile set, falling
09-20 23:54:29.990 INFO 12676 --- [ restartedMain] ConfigServletWebServerApplicationContext : Refreshing org.springframework
09-20 23:54:31.242 INFO 12676 --- [ restartedMain] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat initialized with port(s)
09-20 23:54:31.267 INFO 12676 --- [ restartedMain] o.apache.catalina.core.StandardService : Starting service [Tomcat]
09-20 23:54:31.267 INFO 12676 --- [ restartedMain] org.apache.catalina.core.StandardEngine : Starting Servlet Engine: Apache
09-20 23:54:31.272 INFO 12676 --- [ost-startStop-1] o.a.catalina.core.AprLifecycleListener : The APR based Apache Tomcat N
09-20 23:54:31.360 INFO 12676 --- [ost-startStop-1] o.s.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring embedded W
09-20 23:54:31.360 INFO 12676 --- [ost-startStop-1] o.s.web.context.ContextLoader : Root WebApplicationContext: in
09-20 23:54:31.425 INFO 12676 --- [ost-startStop-1] o.s.b.w.servlet.ServletRegistrationBean : Servlet dispatcherServlet mapp
09-20 23:54:31.428 INFO 12676 --- [ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'characterEncod
09-20 23:54:31.429 INFO 12676 --- [ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'hiddenHttpMet
09-20 23:54:31.429 INFO 12676 --- [ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'httpPutFormCo
09-20 23:54:31.429 INFO 12676 --- [ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'requestConte
09-20 23:54:31.531 INFO 12676 --- [ restartedMain] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/**/favicon.
09-20 23:54:31.725 INFO 12676 --- [ restartedMain] s.w.s.m.m.a.RequestMappingHandlerAdapter : Looking for @ControllerAdvice
09-20 23:54:31.790 INFO 12676 --- [ restartedMain] s.w.s.m.m.a.RequestMappingHandlerMapping : Mapped "{{$/viral}}" onto publ
09-20 23:54:31.794 INFO 12676 --- [ restartedMain] s.w.s.m.m.a.RequestMappingHandlerMapping : Mapped "{{$/error}}" onto publ
09-20 23:54:31.794 INFO 12676 --- [ restartedMain] s.w.s.m.m.a.RequestMappingHandlerMapping : Mapped "{{$/error}},produces=[te
09-20 23:54:31.818 INFO 12676 --- [ restartedMain] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [webjars/**]
09-20 23:54:31.819 INFO 12676 --- [ restartedMain] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/**] onto har
09-20 23:54:32.017 INFO 12676 --- [ restartedMain] o.s.b.d.s.OptionalLiveReloadServer : LiveReload server is running o
09-20 23:54:32.042 INFO 12676 --- [ restartedMain] o.s.j.c.a.AnnotationMethodBeanExporter : Registering beans for JMX exp
09-20 23:54:32.075 INFO 12676 --- [ restartedMain] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port(s): 808
09-20 23:54:32.079 INFO 12676 --- [ restartedMain] com.example.demo.Tutorial2Application : Started Tutorial2Application
```

b. Coba akses localhost:8080/viral, berikan alasan dan jelaskan apa yang terjadi.

## Whitelabel Error Page

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

Thu Sep 20 23:55:57 ICT 2018

There was an unexpected error (type=Internal Server Error, status=500).

Error resolving template "viral2jari", template might not exist or might not be accessible by any of the configured Template Resolvers

Terjadi error status code 500. Template viral2jari yang dijadikan return type tidak ditemukan.

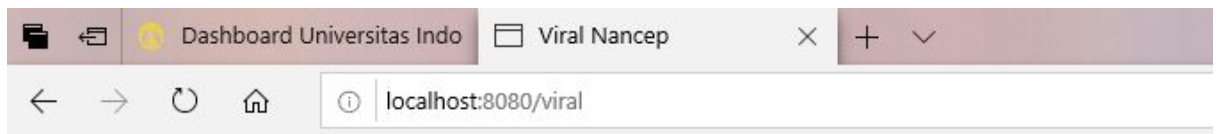
c. Apakah kegunaan return type pada method controller tersebut?

Jawab : Menandakan nama template(nama file berekstensi html) yang akan dikembalikan ketika user mengakses mapping tersebut.

## Latihan Request Parameter

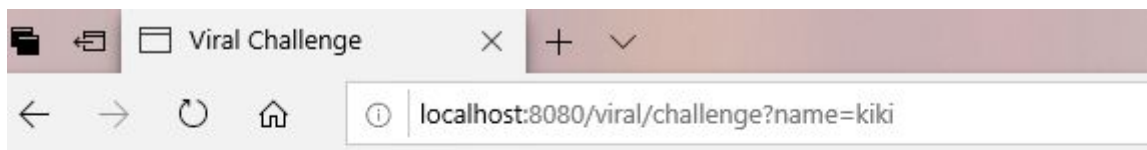
1. "In my feeling" tidak pernah muncul karena di-override oleh th : text. th text sendiri berfungsi untuk mengubah badan dari html. Jika ada text maka yang diprioritaskan adalah yang ada pada th text. Namun , jika sekedar modifikasi terhadap text ( bukan berisi text itu sendiri seperti tag strong) maka masih akan muncul. Hal yang sama jika th:text hanya digunakan untuk modifikasi text.Text di dalam body akan tetap muncul.
2. Perubahan anotasi request mapping menjadi "/viral/challenge" akan membuat akses terhadap routing "viral" mengembalikan seperti sebelumnya ( halaman viral.html).





## Mashook Pak Ekooo!!

Sementara akses terhadap routing viral/challenge ( asumsi memiliki paramter sama) akan mengembalikan apa yang sebelumnya dikembalikan oleh routing “/challenge”( asumsi parameter sama).

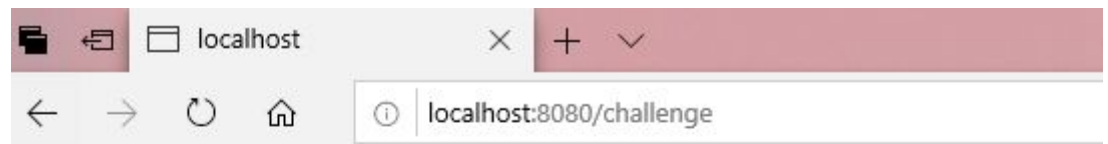


kiki do you love me?

Are you riding?

3.

a.



## Whitelabel Error Page

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

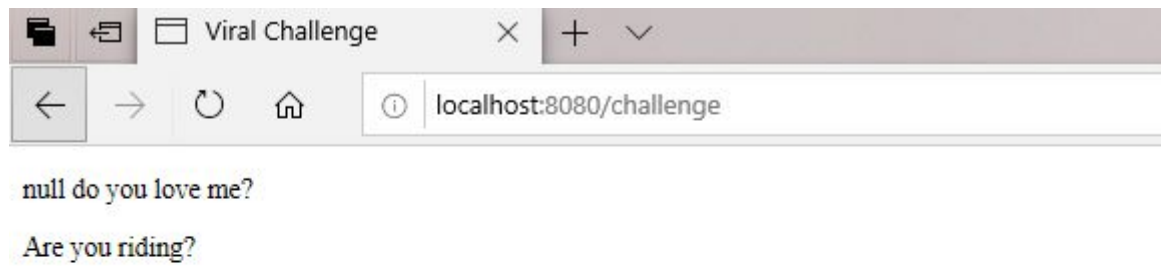
Fri Sep 21 00:50:49 ICT 2018

There was an unexpected error (type=Bad Request, status=400).

Required String parameter 'name' is not present

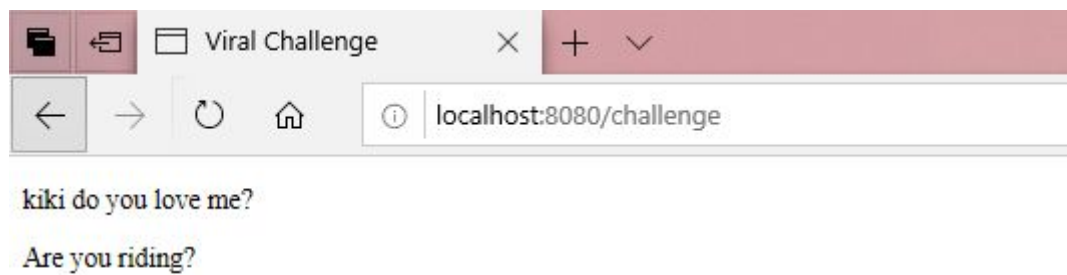
Mengembalikan bad request. Hal ini terjadi karena parameter nama yang dibutuhkan tidak ada dimana seharusnya hal itu dibutuhkan ( error karena secara default akan bernilai true setiap meminta param ). Dengan begitu syarat dari routing ini tidak terpenuhi

b.



Setelah mengubah required menjadi false , maka routing ini tidak mengharuskan lagi parameter harus dibutuhkan. Ketika tidak diisikan maka hasilnya akan menjadi null.

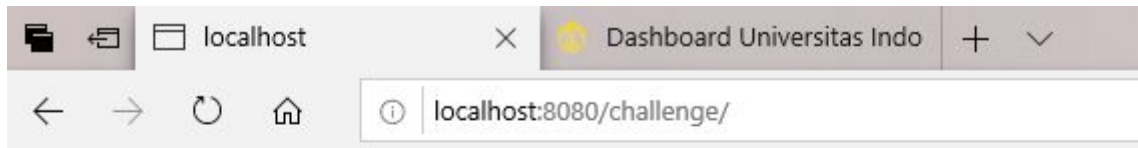
c.



Sama seperti B ( required = false ) di sini tidak diwajibkan memasukkan parameter name. Hanya dengan ditambahkannya default value , jika parameter tidak diisikan maka hasilnya akan dimasukkan default value.

## Latihan Path Variable

1.



## Whitelabel Error Page

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

Fri Sep 21 15:40:23 ICT 2018

There was an unexpected error (type=Bad Request, status=400).

Required String parameter 'name' is not present

Bad request. Hal ini karena mapping yang mengatur “/challenge” mengharuskan parameter name memiliki nilai ( required = true secara *default*) .

2.



## Whitelabel Error Page

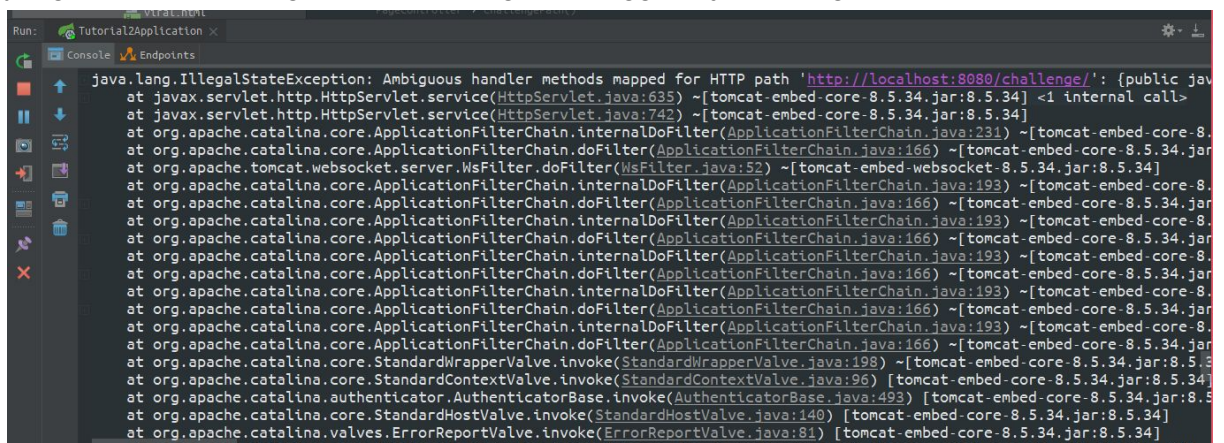
This application has no explicit mapping for /error, so you are seeing this as a fallback.

Fri Sep 21 17:52:26 ICT 2018

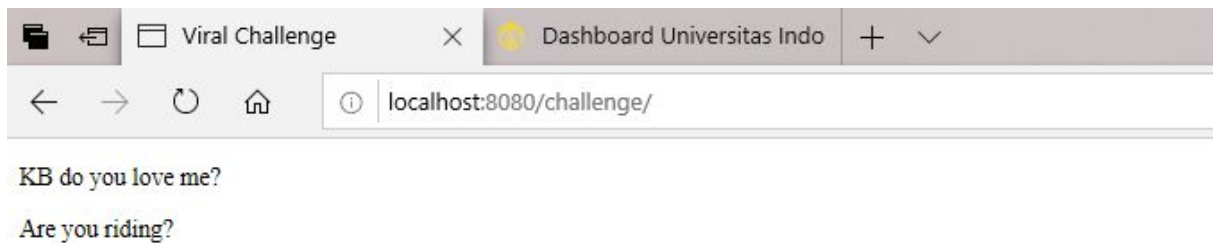
There was an unexpected error (type=Internal Server Error, status=500).

Ambiguous handler methods mapped for HTTP path 'http://localhost:8080/challenge/': {public java.lang.String com.example.demo.controller.PageController.challenge(java.lang.String,org.springframework.ui.Model), public java.lang.String com.example.demo.controller.PageController.challengePath(java.util.Optional,org.springframework.ui.Model)}

Akan mengembalikan internal server error. Hal ini disebabkan adanya dua method yang memiliki mapping untuk “/challenge” sehingga terjadi ambiguitas.

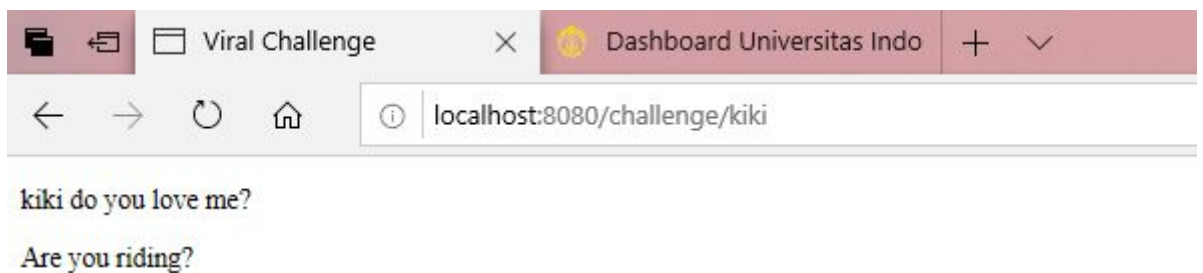


Tetapi , jika method challenge ( yang memiliki mapping sama ) dihapus , maka hasilnya akan mengembalikan berikut.



Sesuai dengan kondisi yang diberikan karena tak ada nama yang diisikan , maka secara default , KB yang akan dikembalikan.

3.

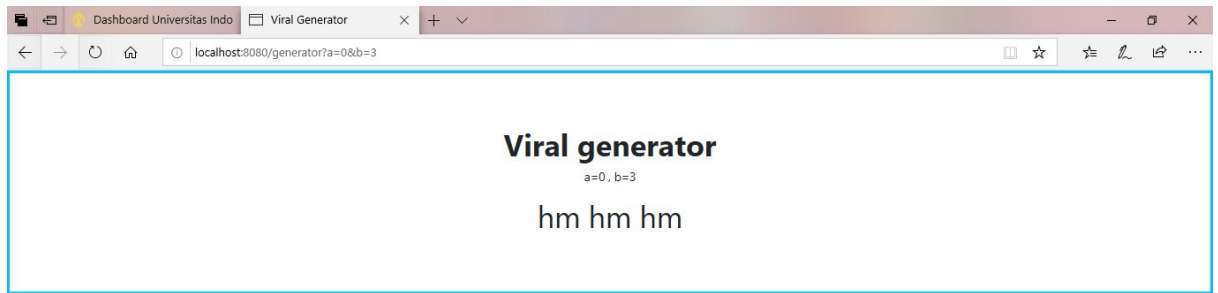


Hal ini akan dihandle oleh challengePath. Sesuai kondisi yang ada dijelaskan dalam method, kondisi ini akan masuk else karena nama diberikan. Kiki akan dikembalikan.

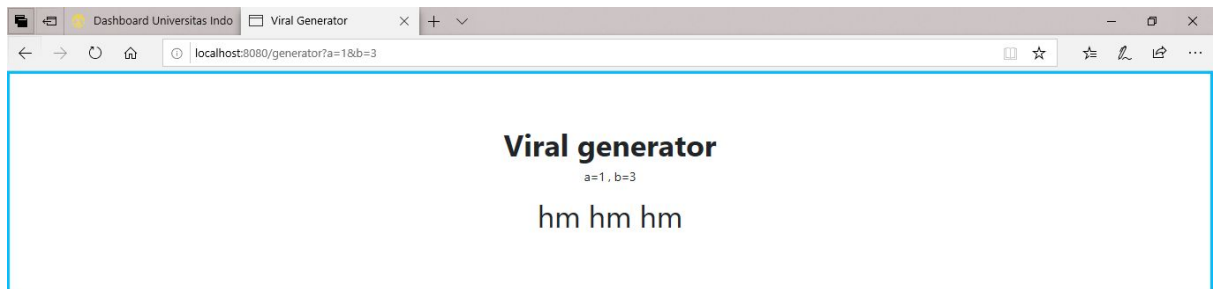
Hasil dari <http://localhost:8080/generator>



<http://localhost:8080/generator?a=0&b=3>



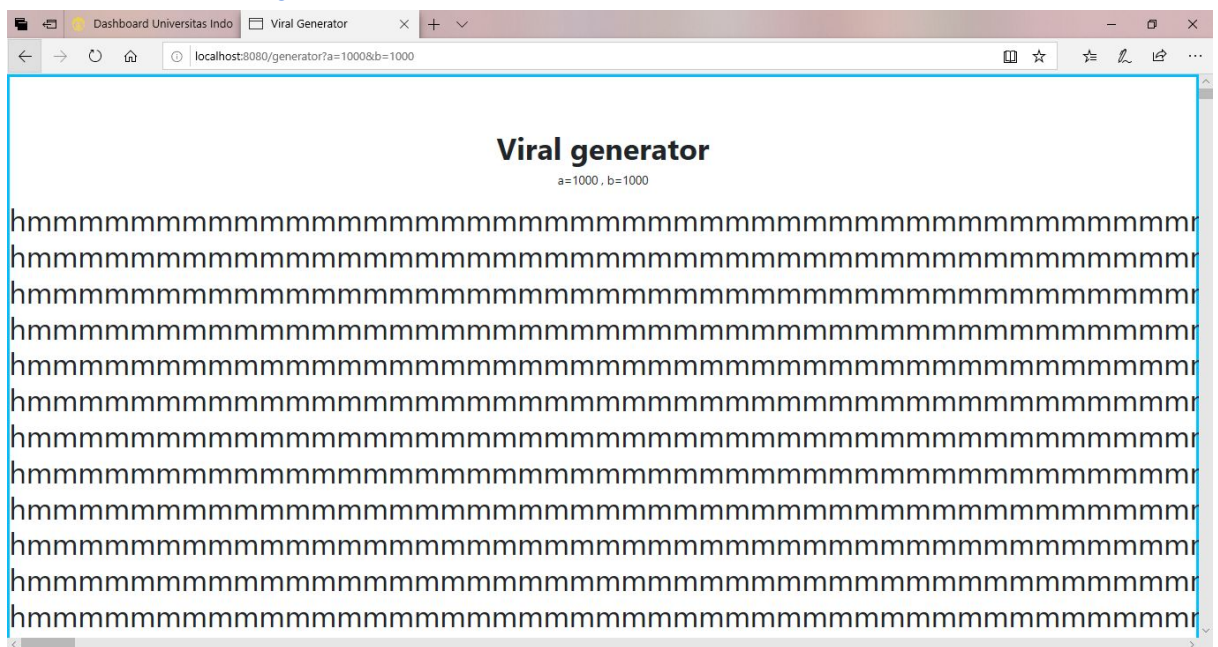
<http://localhost:8080/generator?a=1&b=3>



<http://localhost:8080/generator?a=5&b=3>

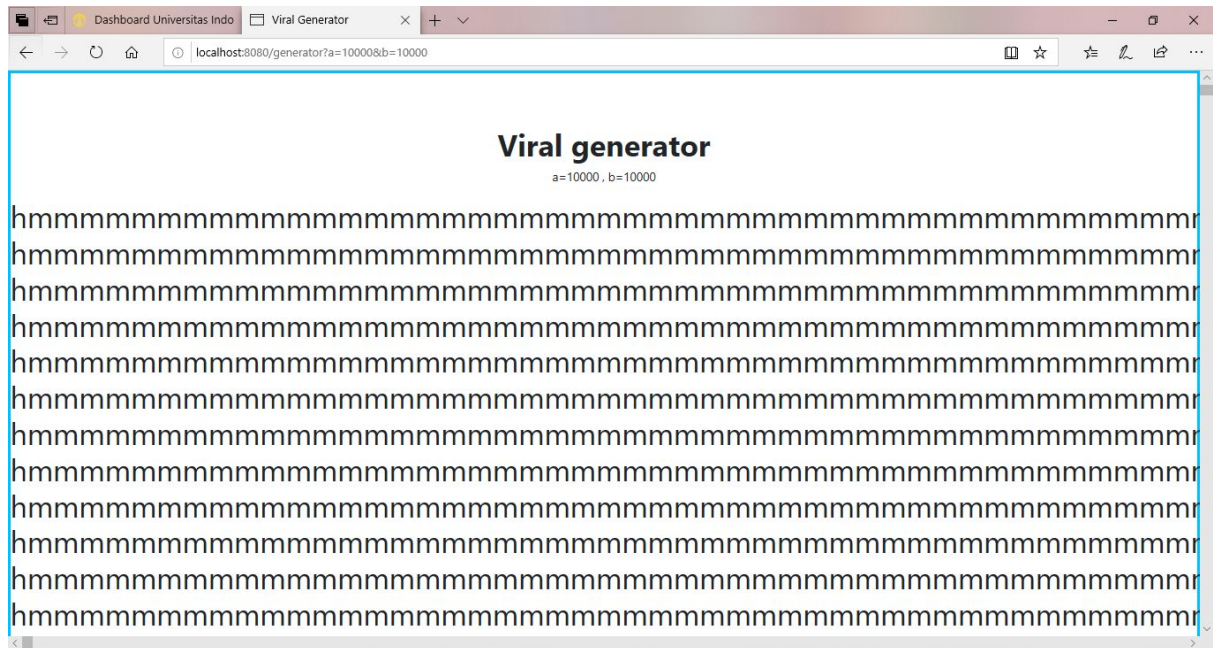


<http://localhost:8080/generator?a=1000&b=1000>





<http://localhost:8080/generator?a=10000&b=10000>



<http://localhost:8080/generator?a=shii&b=baaa> > Random string

