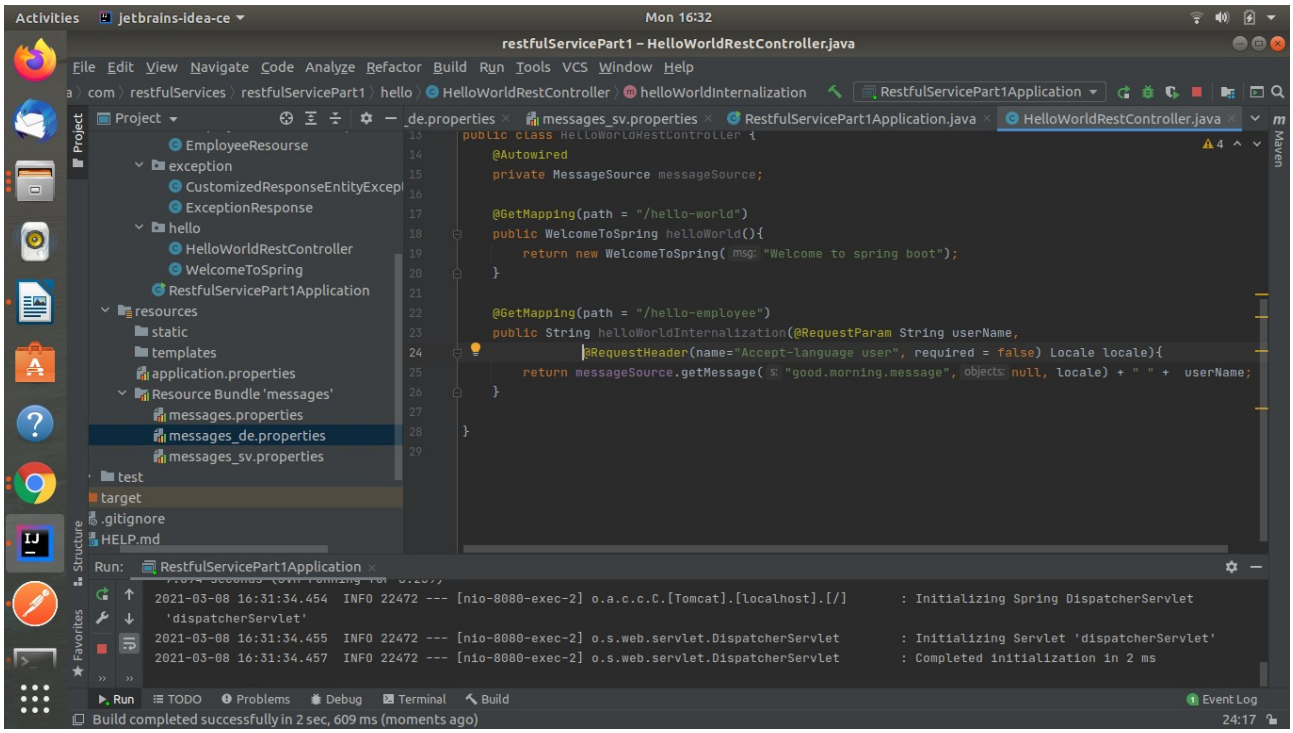
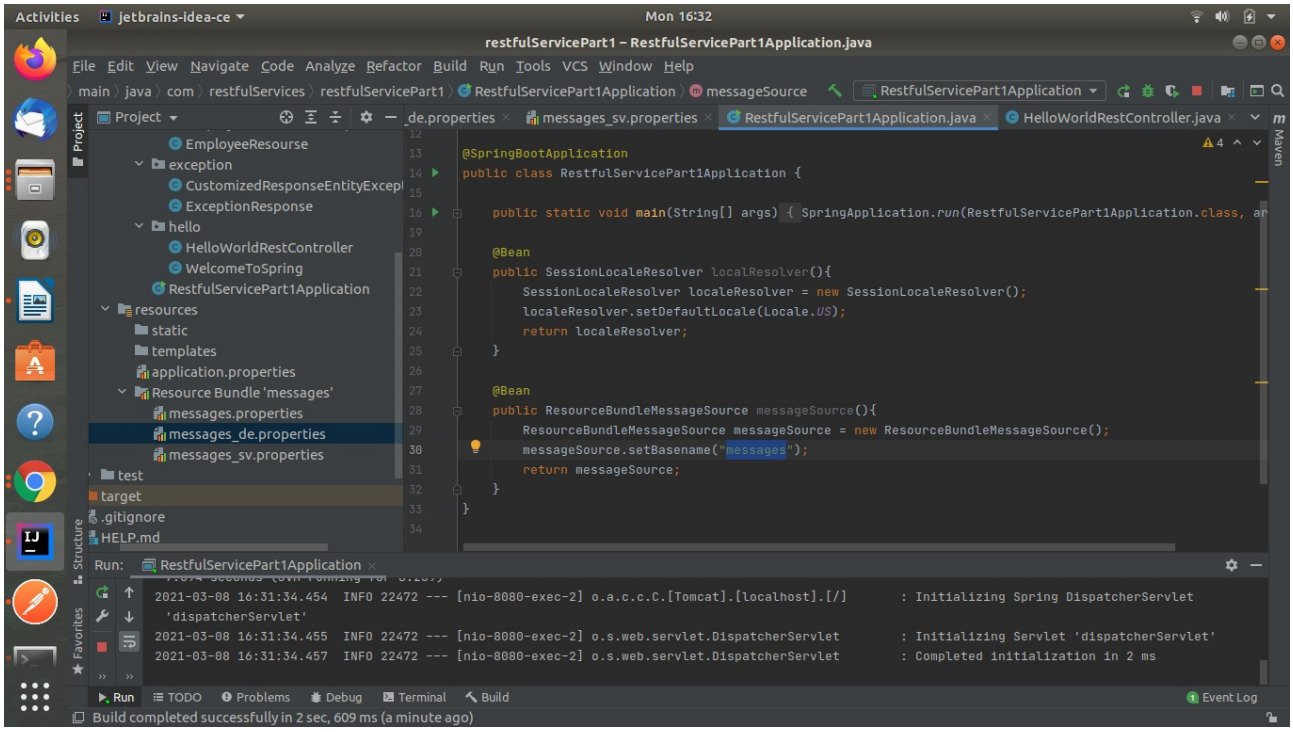
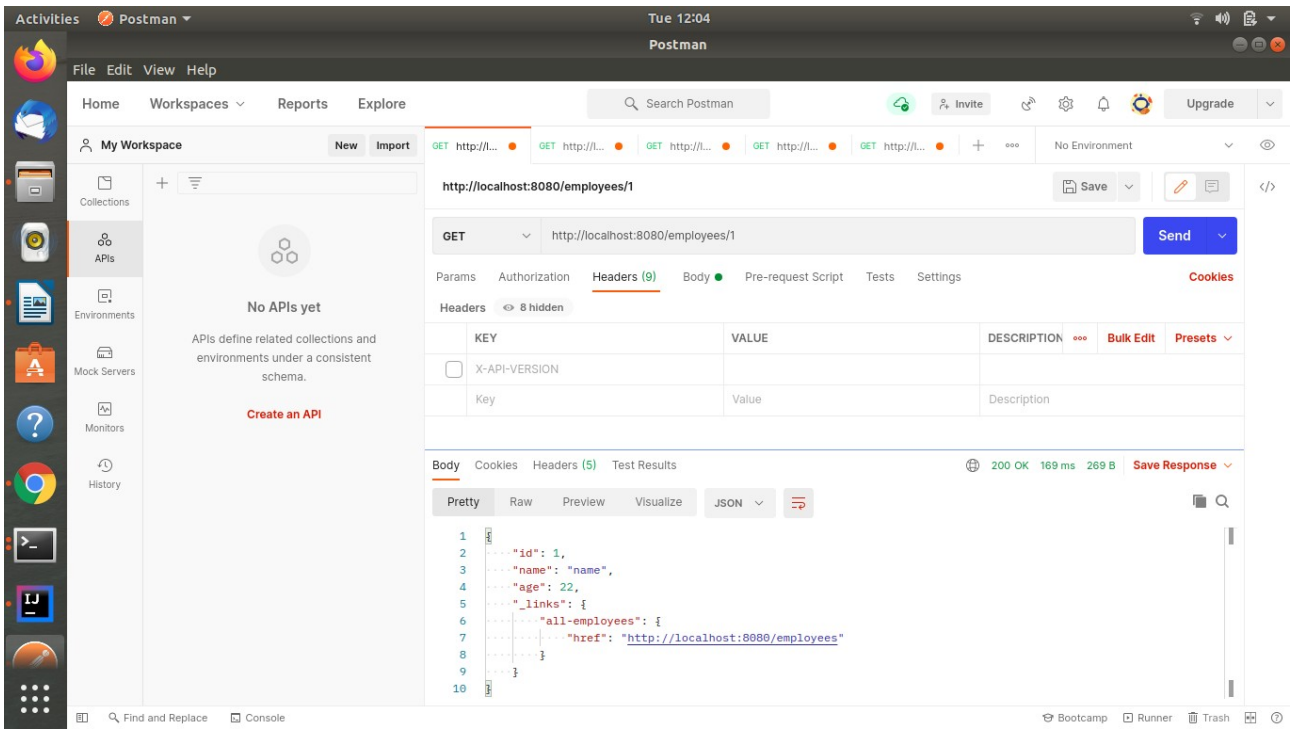
*Internationalization

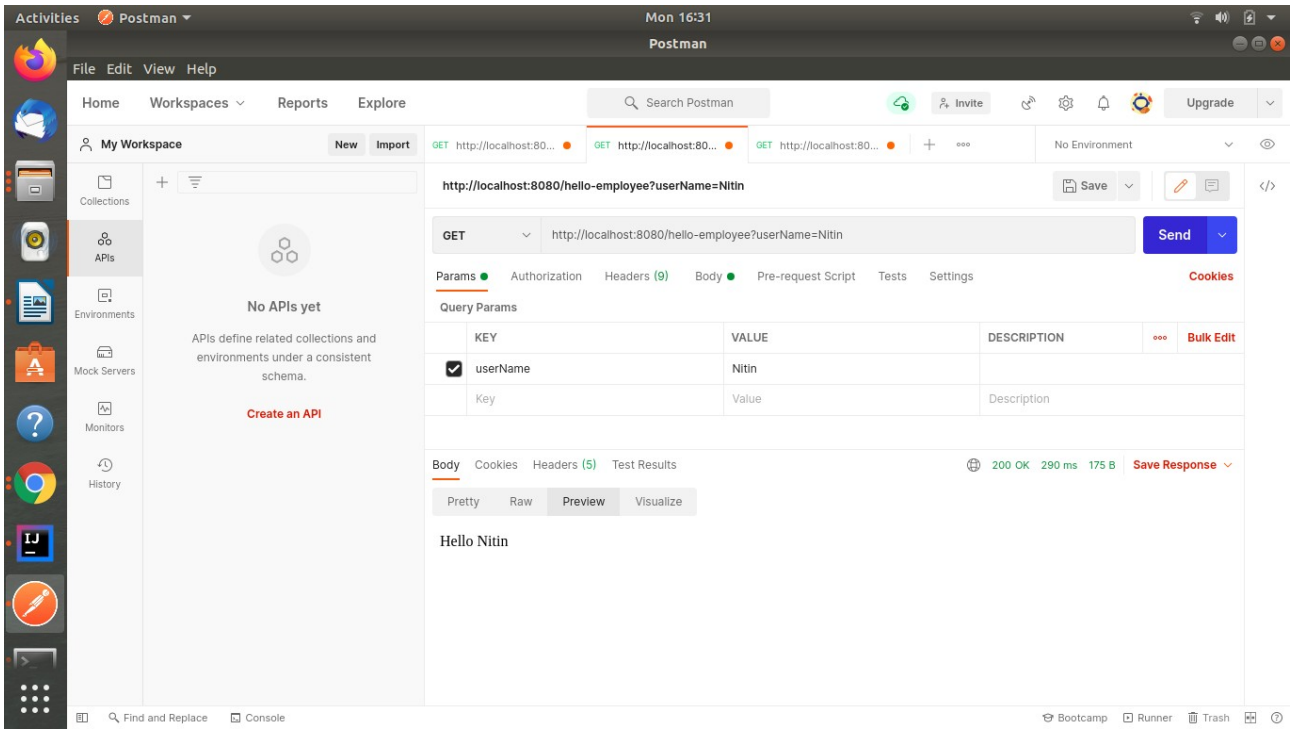
1.Add support for Internationalization in your application allowing messages to be shown in English, German and Swedish, keeping English as default.

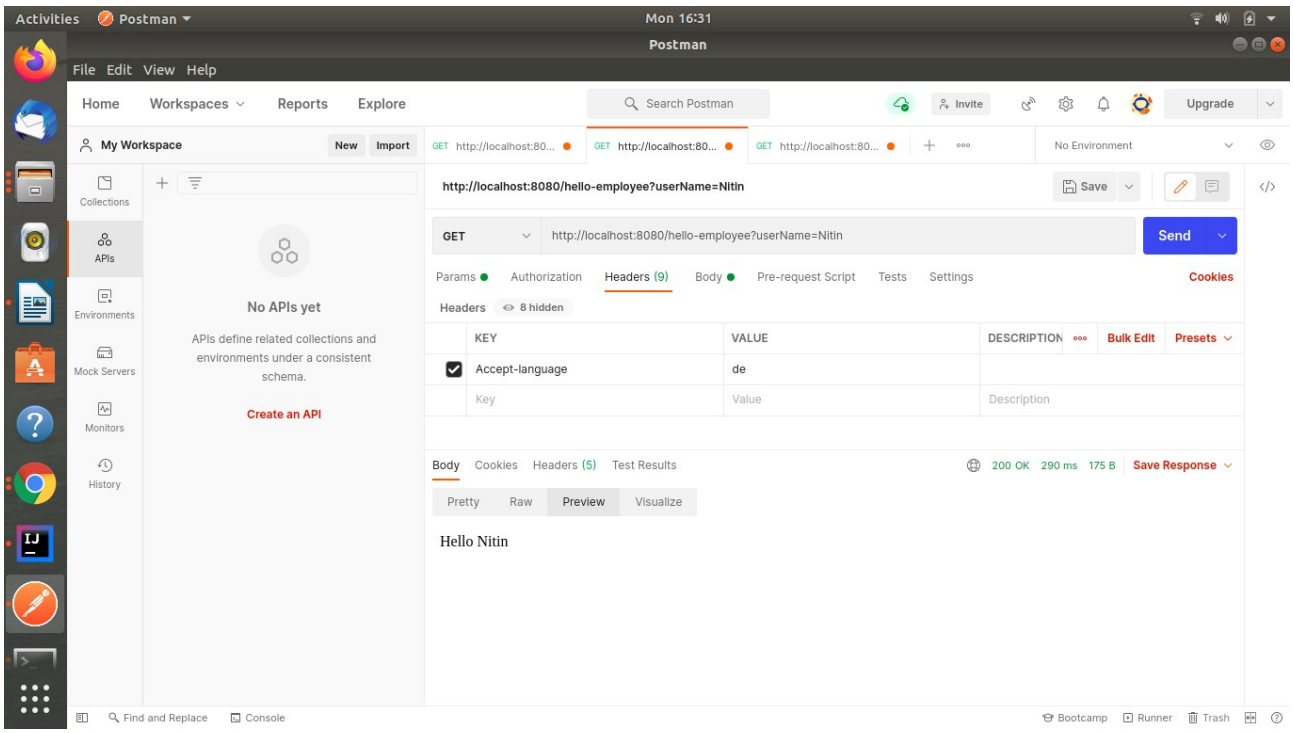


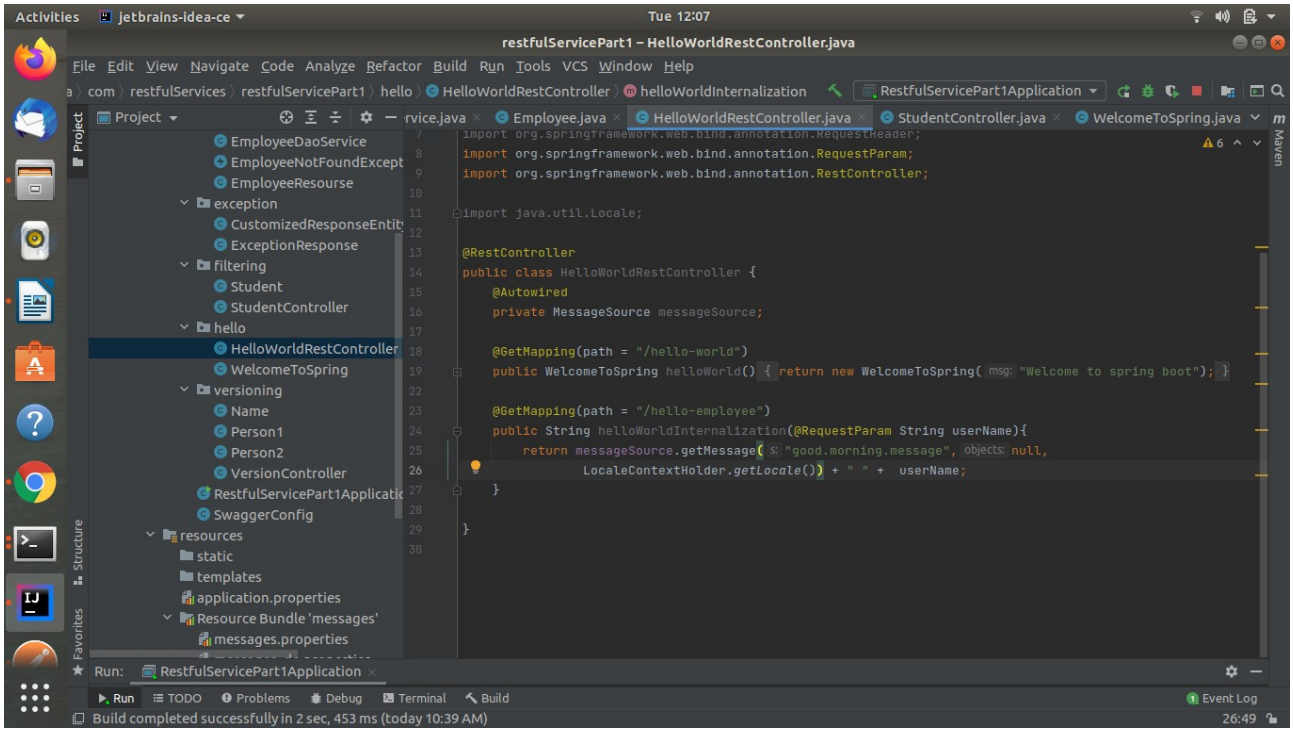




2.Create a GET request which takes "username" as param and shows a localized message "Hello Username". (Use parameters in message properties)

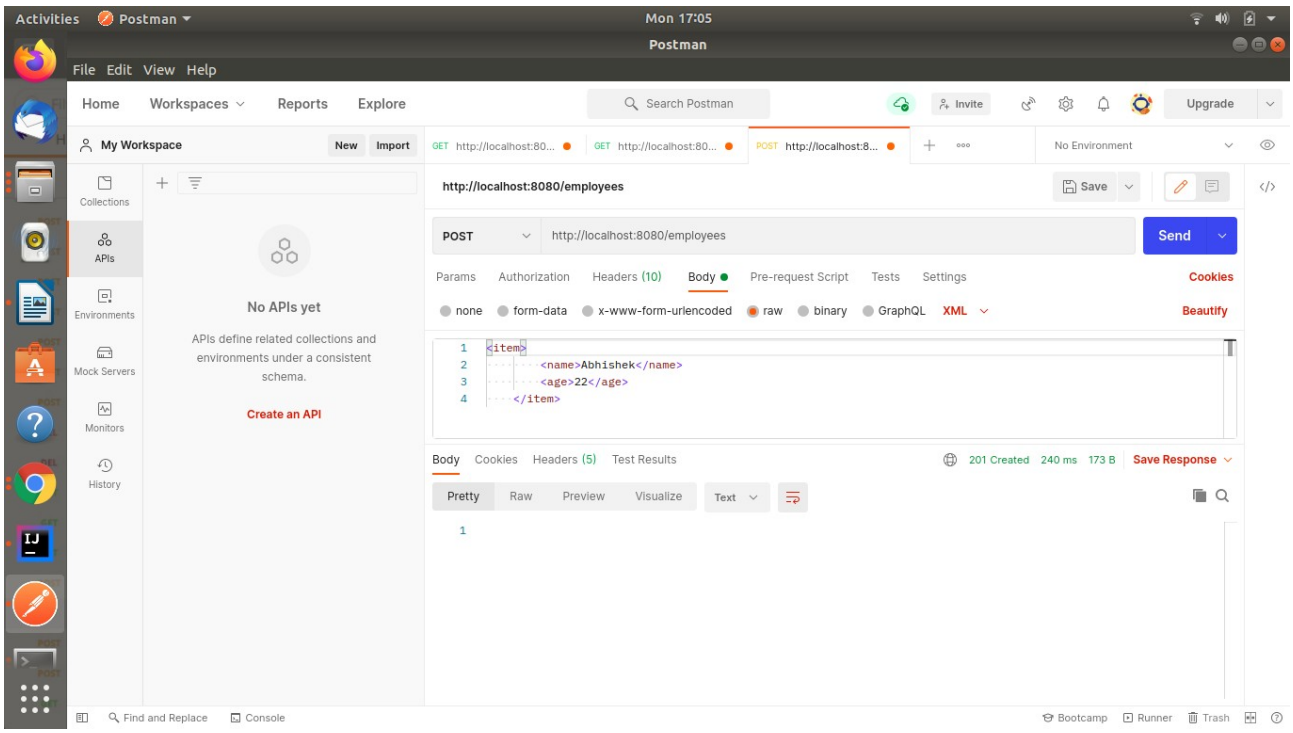




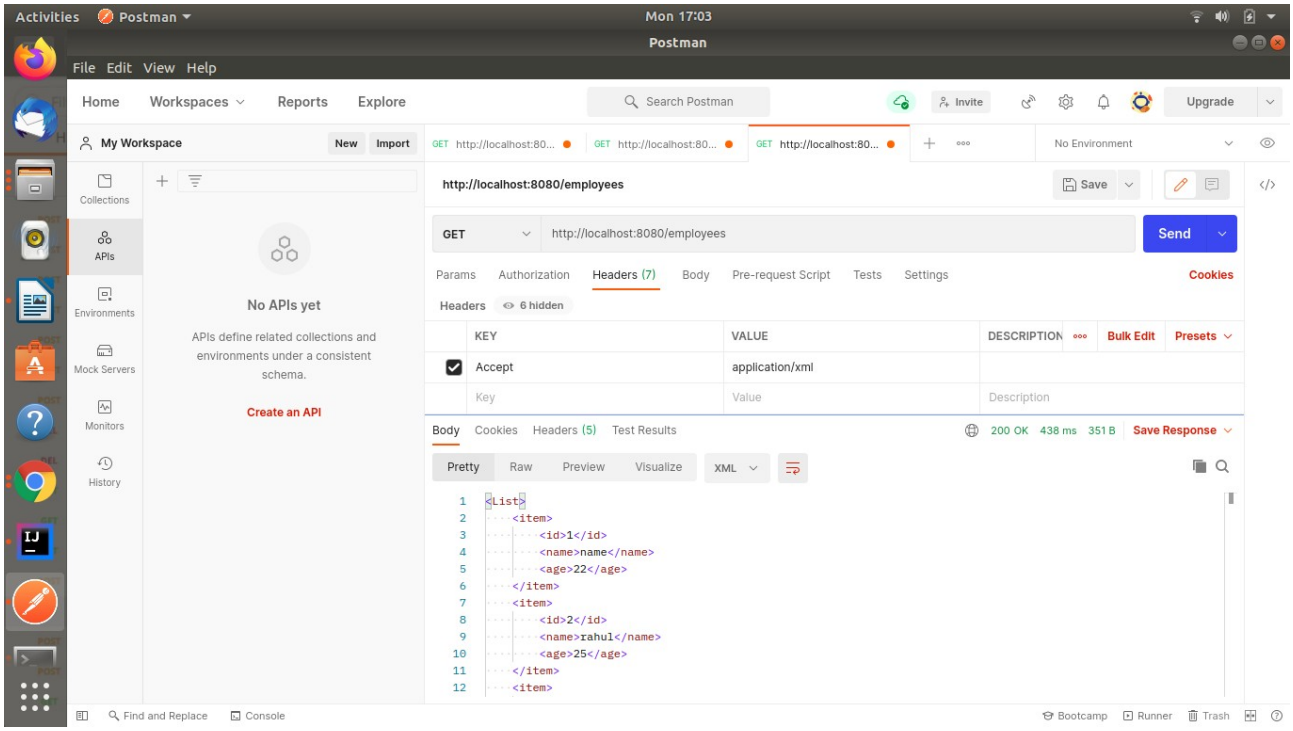


*Content Negotiation

3. Create POST Method to create user details which can accept XML for user creation.



4. Create GET Method to fetch the list of users in XML format.



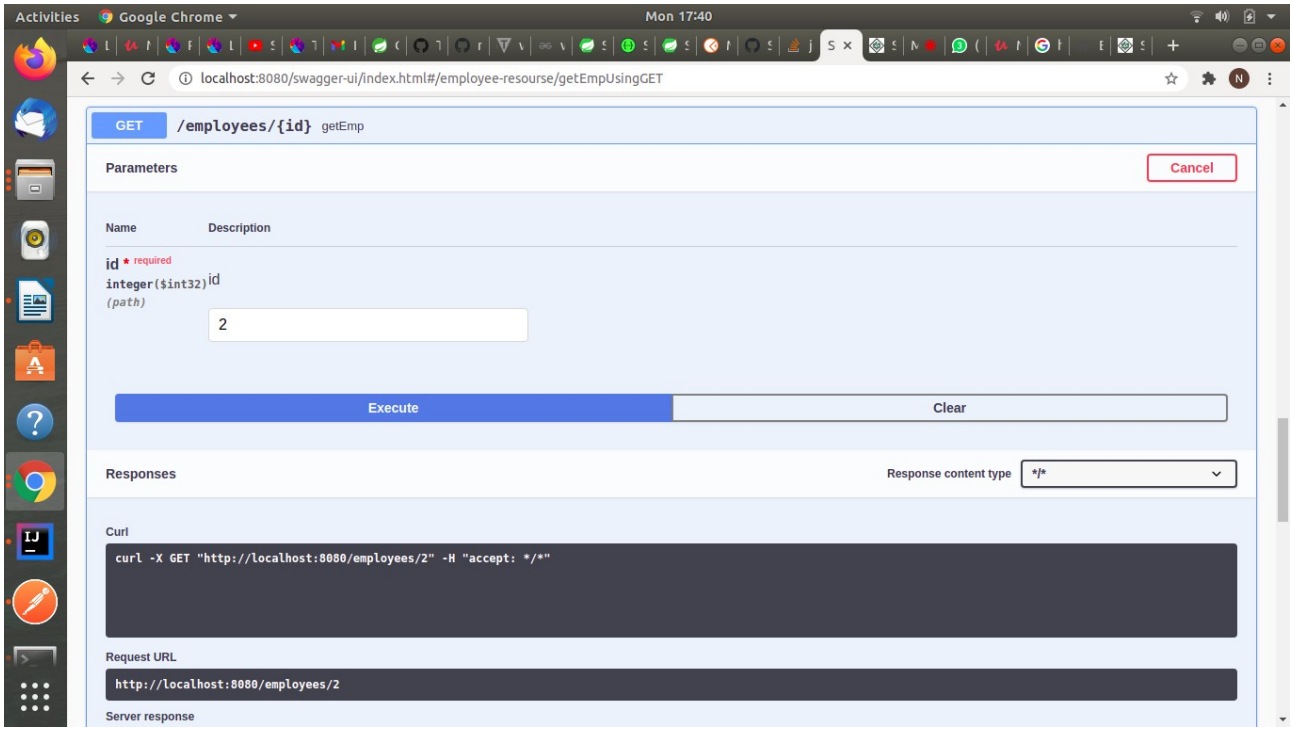
*Swagger

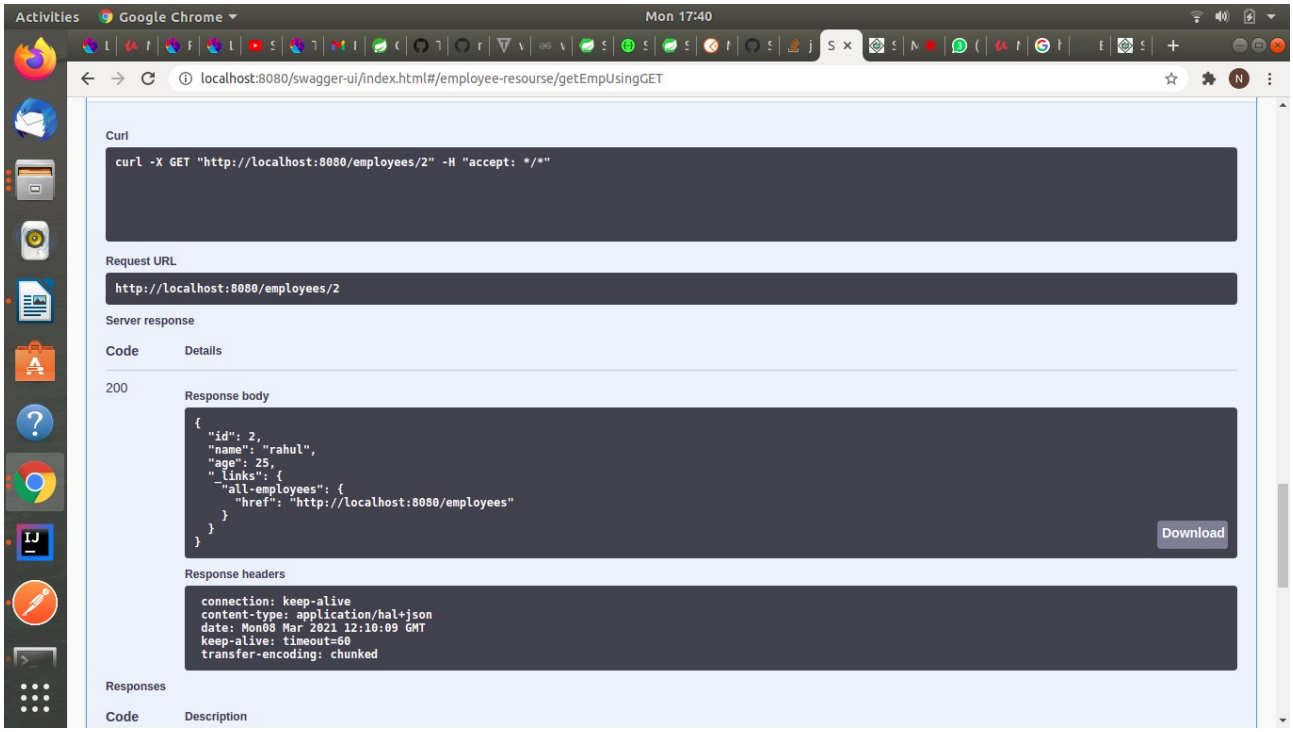
5. Configure swagger plugin and create document of following methods:

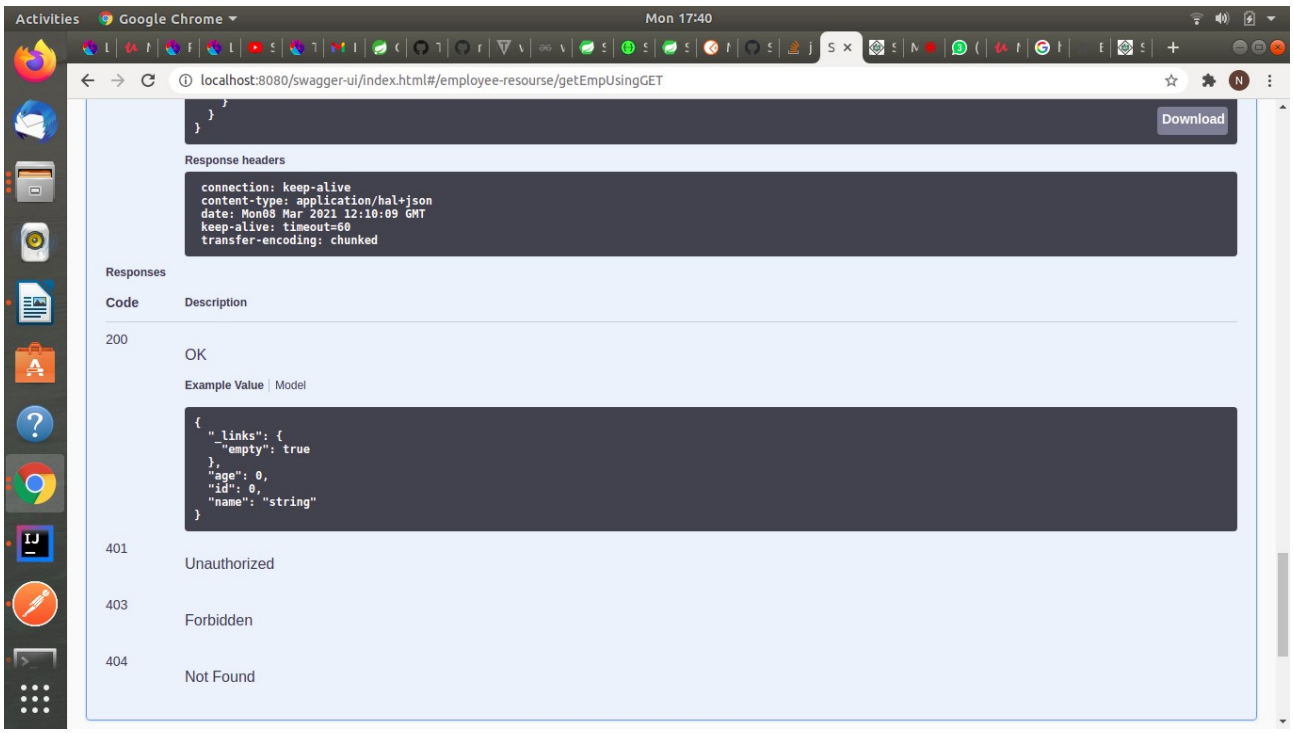
Get details of User using GET request.

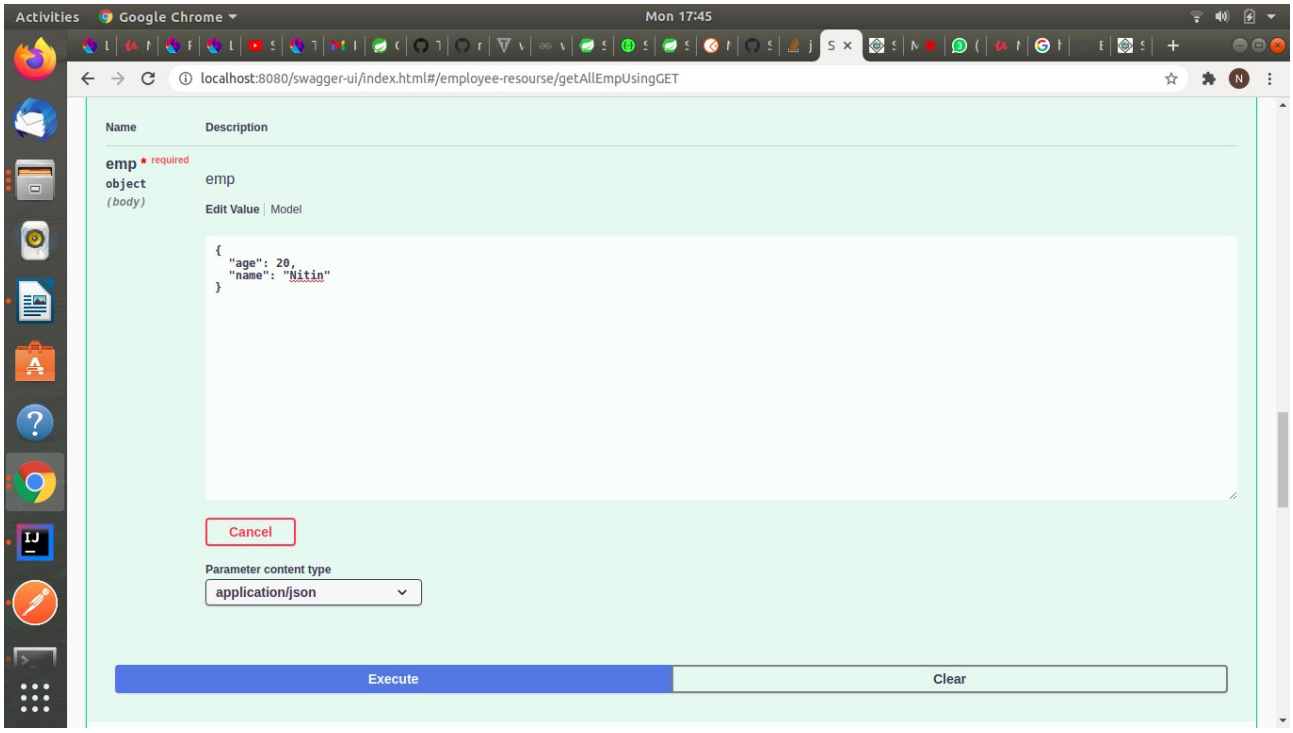
Save details of the user using POST request.

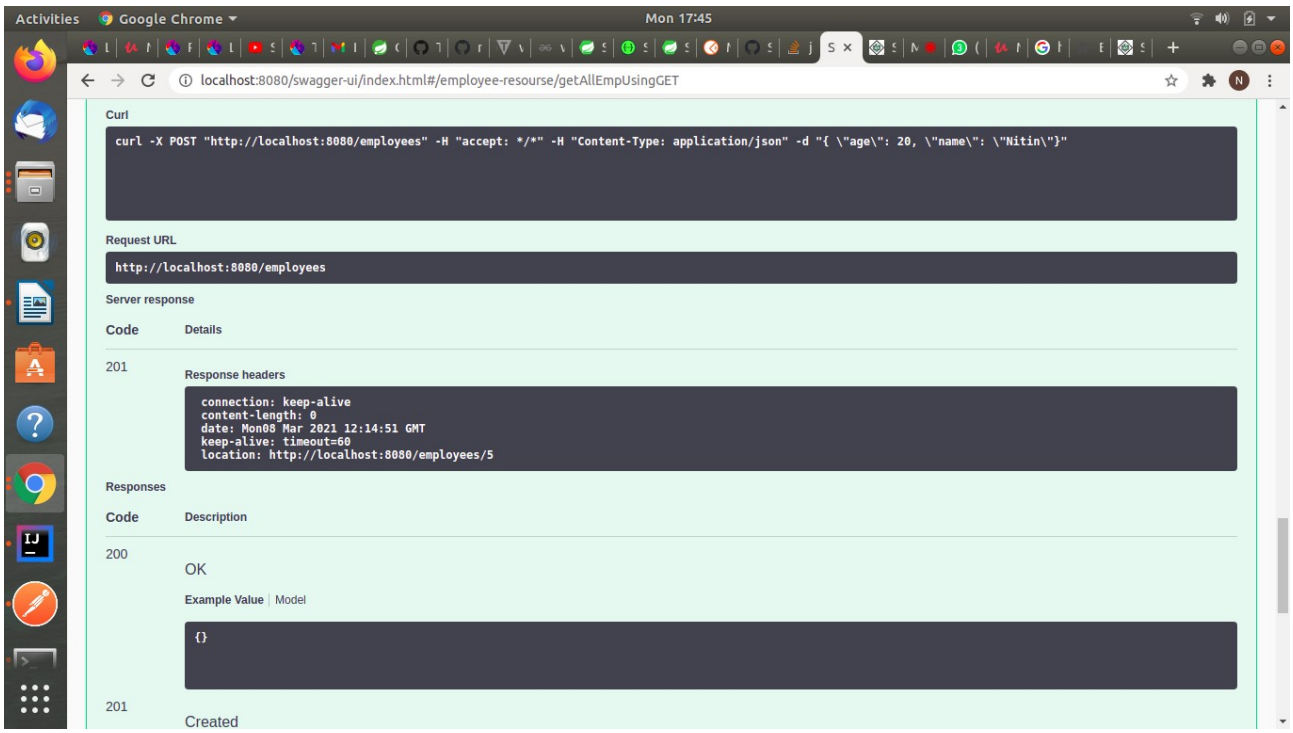
Delete a user using DELETE request.

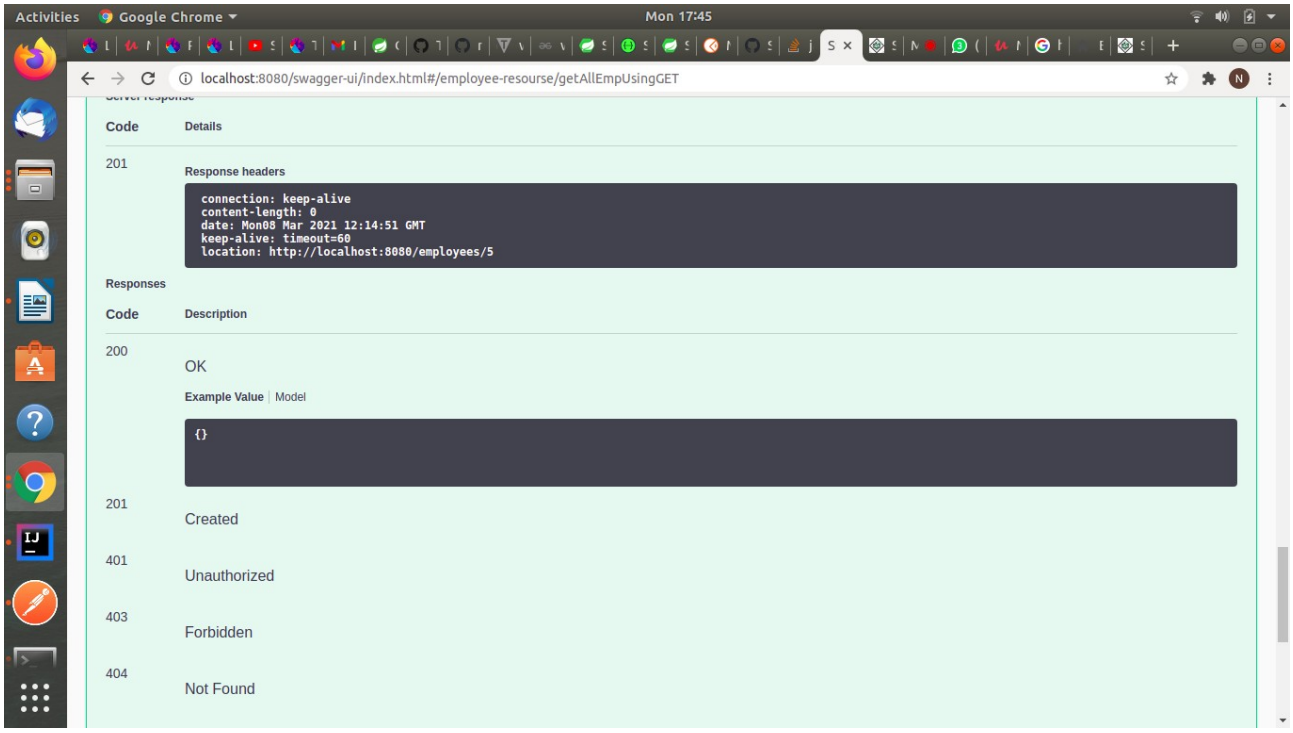


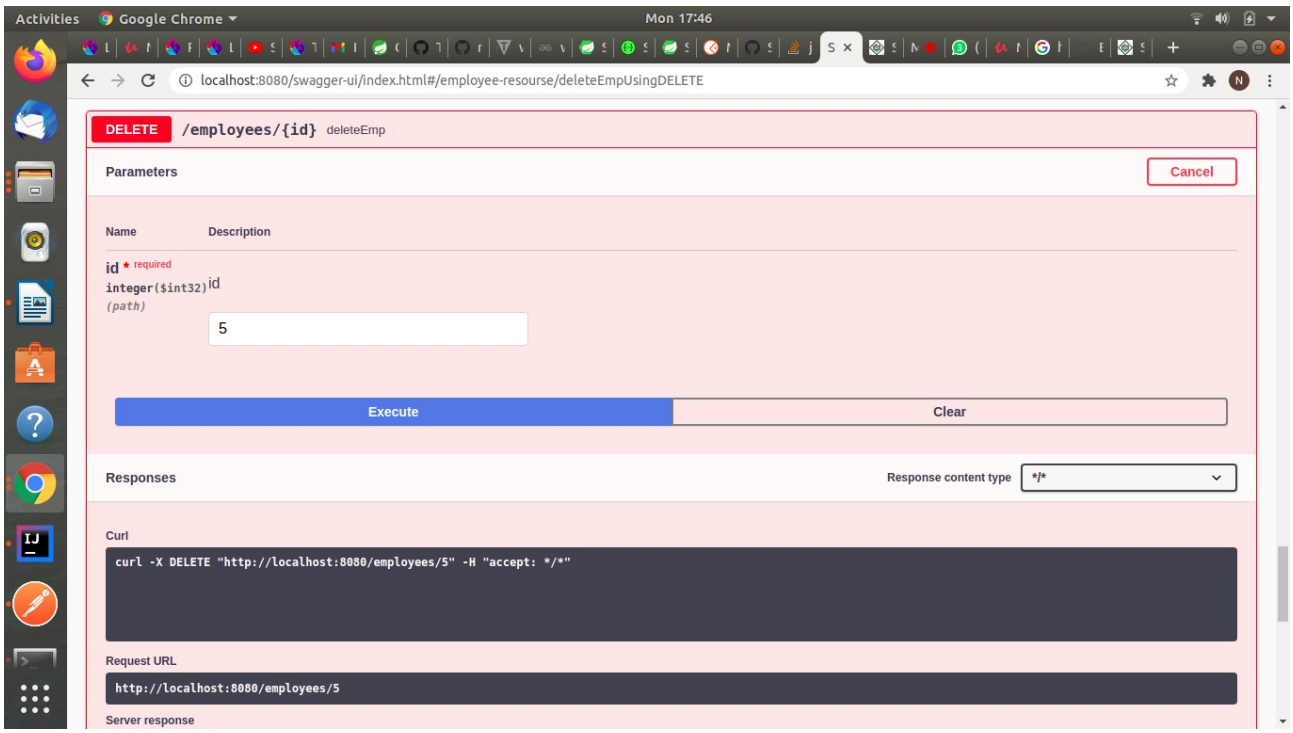


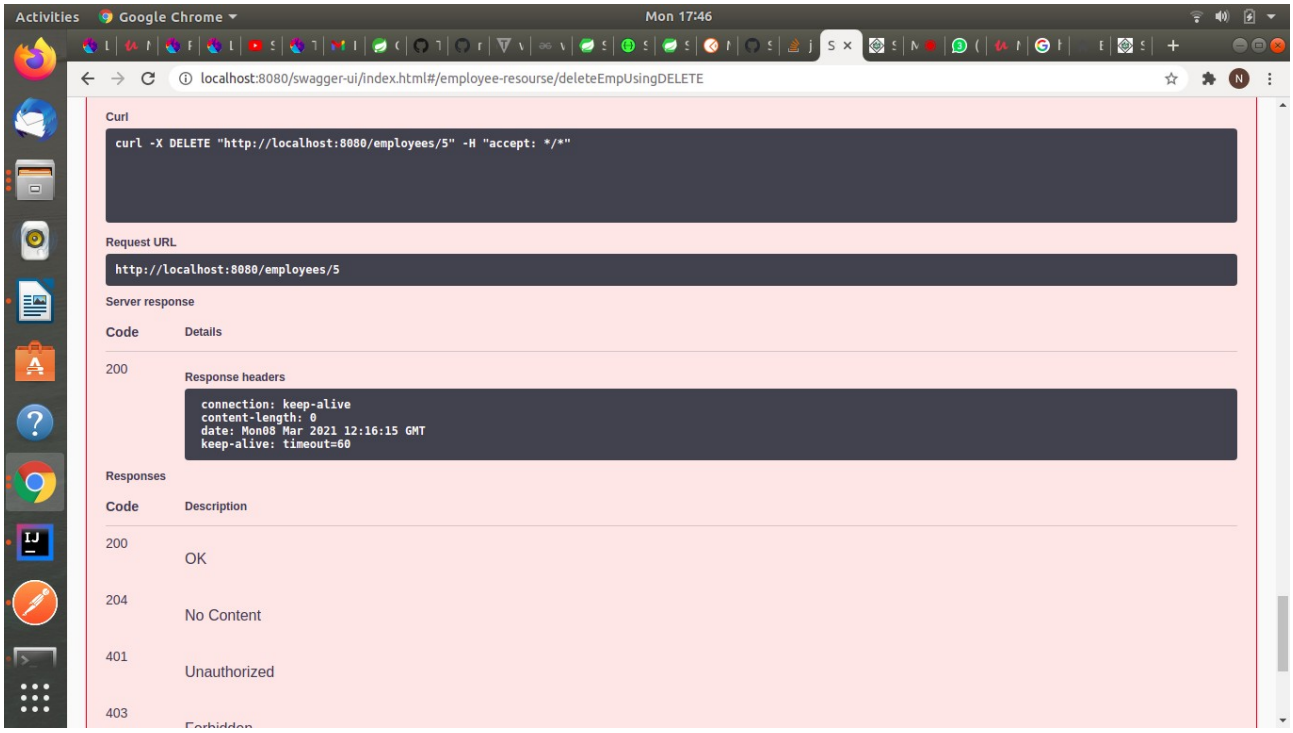

Activities
Google Chrome
Mon 17:40
localhost:8080/swagger-ui/index.html#/employee-resourse/getEmpUsingGET
Download
Response headers
connection: keep-alive
content-type: application/hal+json
date: Mon08 Mar 2021 12:10:09 GMT
keep-alive: timeout=60
transfer-encoding: chunked
Responses
Code
Description
200
OK
Example Value | Model
{
"_links": {
"empty": true
},
"age": 0,
"id": 0,
"name": "string"
}
401
Unauthorized
403
Forbidden
404
Not Found


Activities
Google Chrome
Mon 17:45
localhost:8080/swagger-ui/index.html#/employee-resourse/getAllEmpUsingGET
Name
Description
emp * required
object
(body)
emp
Edit Value | Model
{
"age": 20,
"name": "Nitin"
}
Cancel
Parameter content type
application/json
Execute
Clear

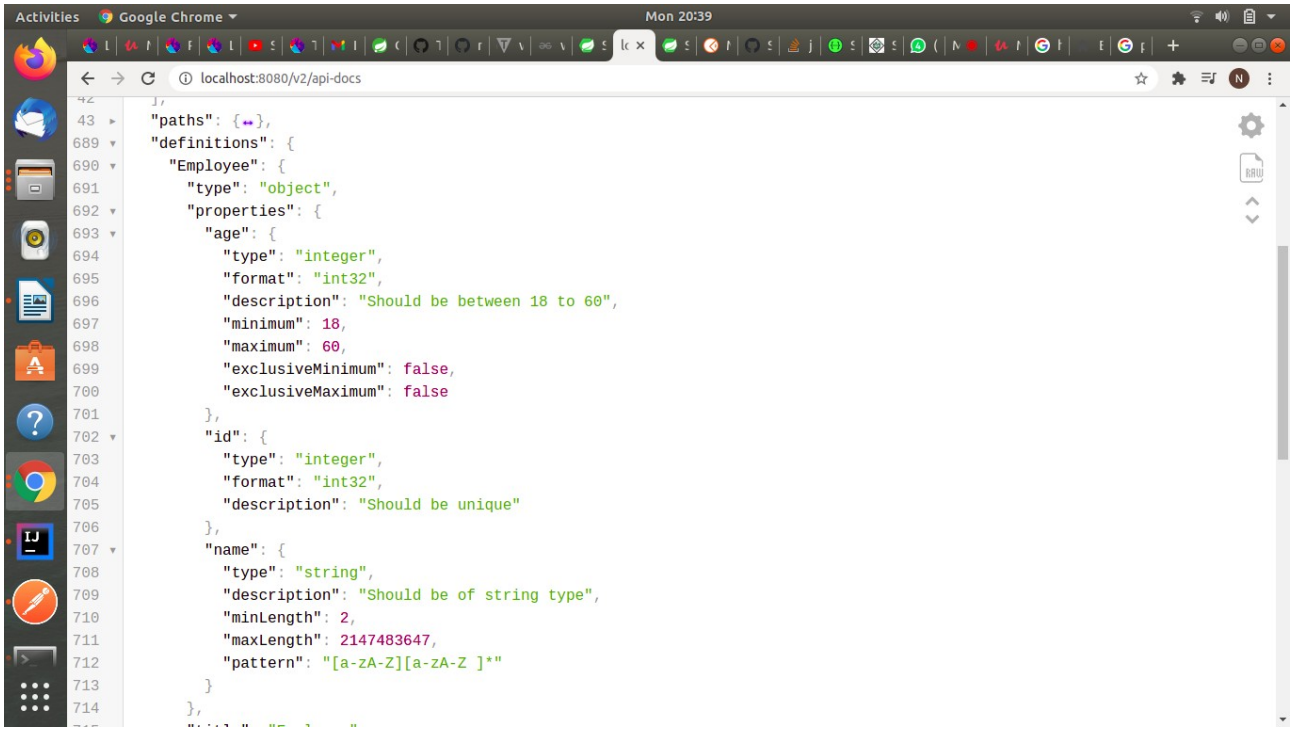

Activities
Google Chrome
Mon 17:45
localhost:8080/swagger-ui/index.html#/employee-resourse/getAllEmpUsingGET
Curl
curl -X POST "http://localhost:8080/employees" -H "accept: */*" -H "Content-Type: application/json" -d "{ \"age\": 20, \"name\": \"Nitin\"}"
Request URL
http://localhost:8080/employees
Server response
Code
Details
201
Response headers
connection: keep-alive
content-length: 0
date: Mon08 Mar 2021 12:14:51 GMT
keep-alive: timeout=60
location: http://localhost:8080/employees/5
Responses
Code
Description
200
OK
Example Value | Model
{}
201
Created

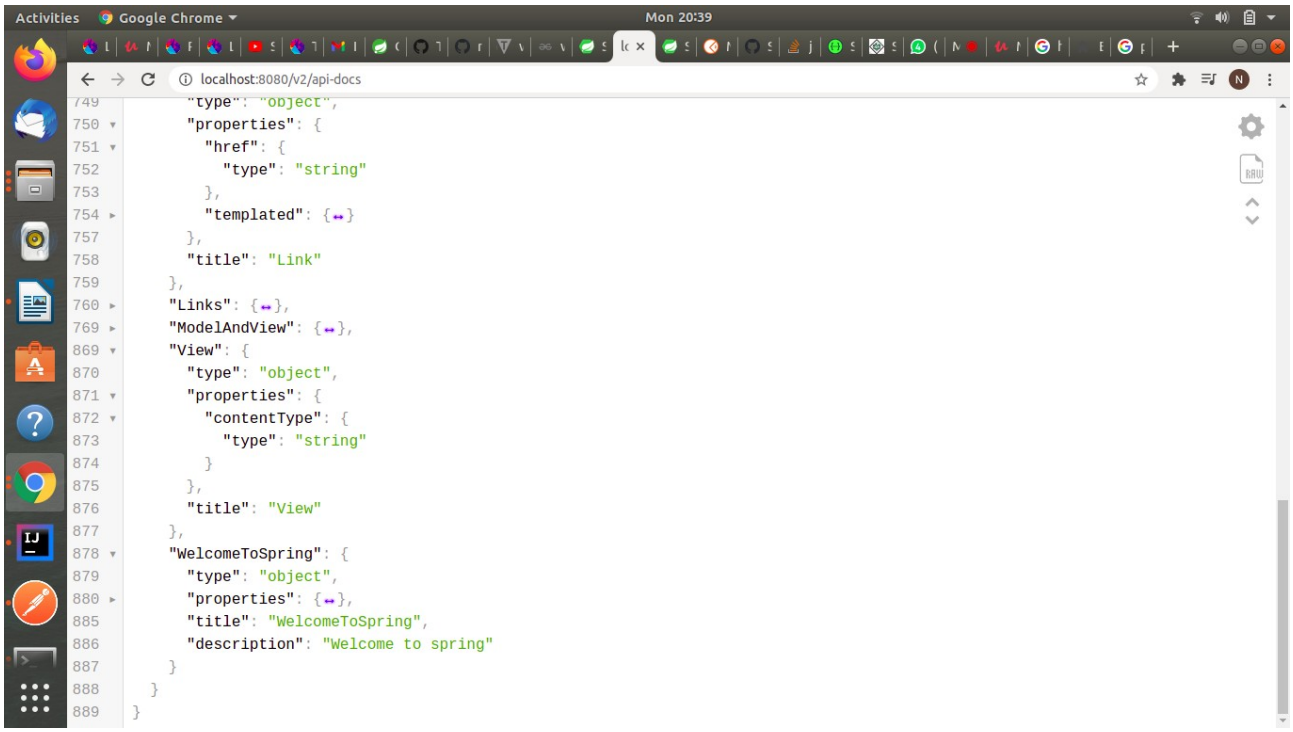

Activities
Google Chrome
Mon 17:45
localhost:8080/swagger-ui/index.html#/employee-resourse/getAllEmpUsingGET
Code
Details
201
Response headers
connection: keep-alive
content-length: 0
date: Mon08 Mar 2021 12:14:51 GMT
keep-alive: timeout=60
location: http://localhost:8080/employees/5
Responses
Code
Description
200
OK
Example Value | Model
{}
201
Created
401
Unauthorized
403
Forbidden
404
Not Found

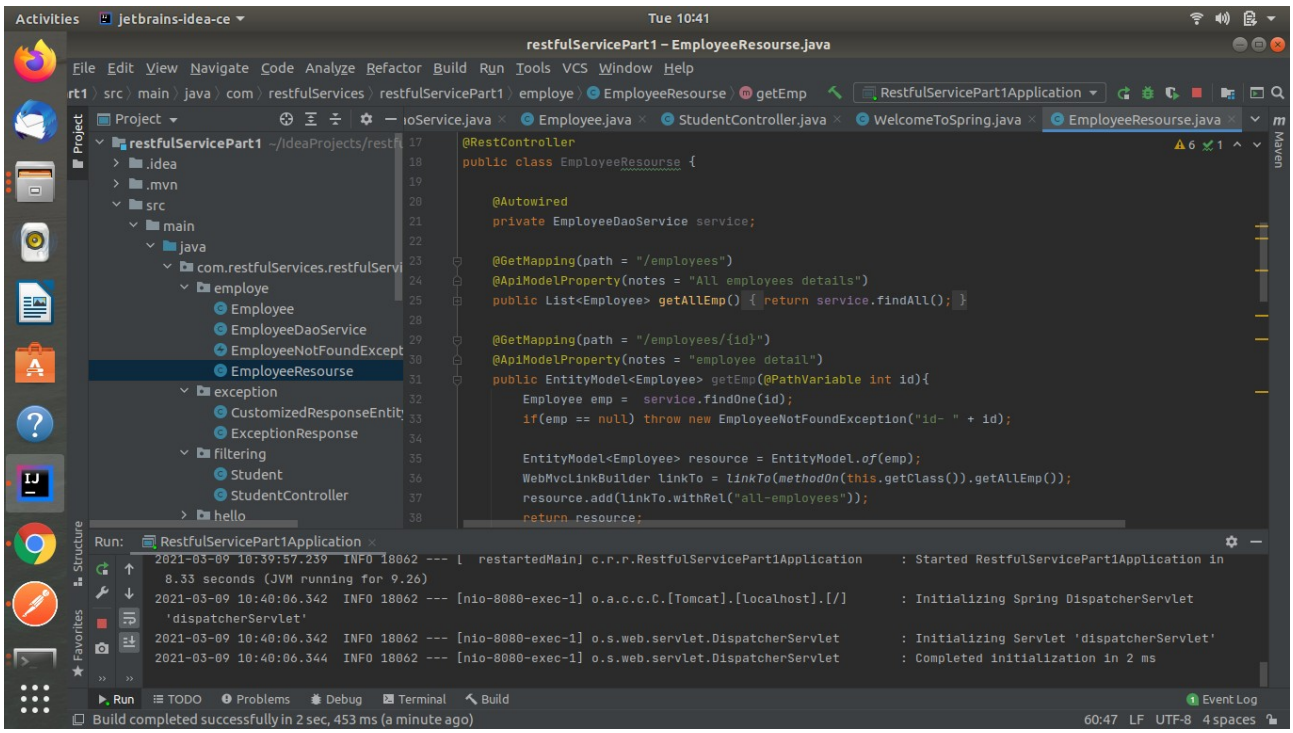

Activities
Google Chrome
Mon 17:46
localhost:8080/swagger-ui/index.html#/employee-resourse/deleteEmpUsingDELETE
DELETE
/employees/{id}
deleteEmp
Parameters
Cancel
Name
Description
id * required
integer($int32)
(path)
id
5
Execute
Clear
Responses
Response content type
/
Curl
curl -X DELETE "http://localhost:8080/employees/5" -H "accept: */*"
Request URL
http://localhost:8080/employees/5
Server response

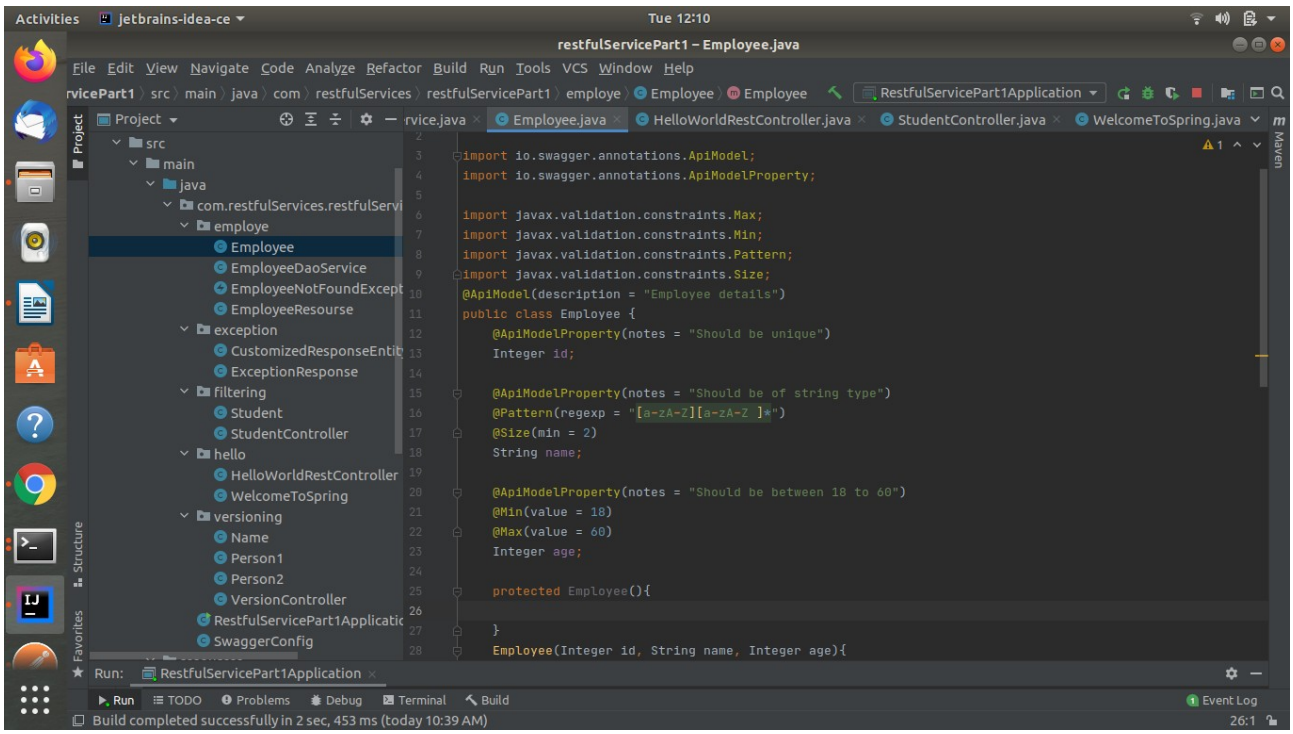

Activities
Google Chrome
Mon 17:46
localhost:8080/swagger-ui/index.html#/employee-resourse/deleteEmpUsingDELETE
Curl
curl -X DELETE "http://localhost:8080/employees/5" -H "accept: */*"
Request URL
http://localhost:8080/employees/5
Server response
Code
Details
200
Response headers
connection: keep-alive
content-length: 0
date: Mon08 Mar 2021 12:16:15 GMT
keep-alive: timeout=60
Responses
Code
Description
200
OK
204
No Content
401
Unauthorized
403

7. In swagger documentation, add the description of each class and URI so that in swagger UI the purpose of class and URI is clear.



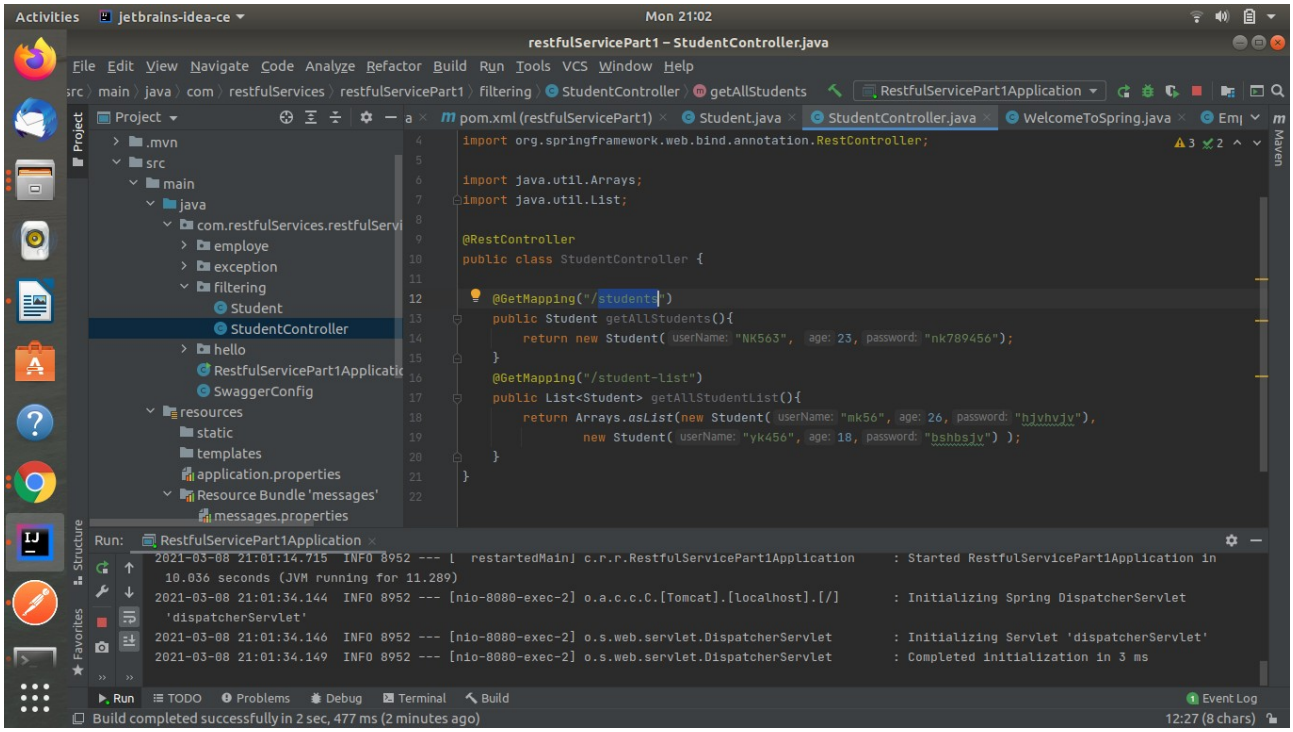


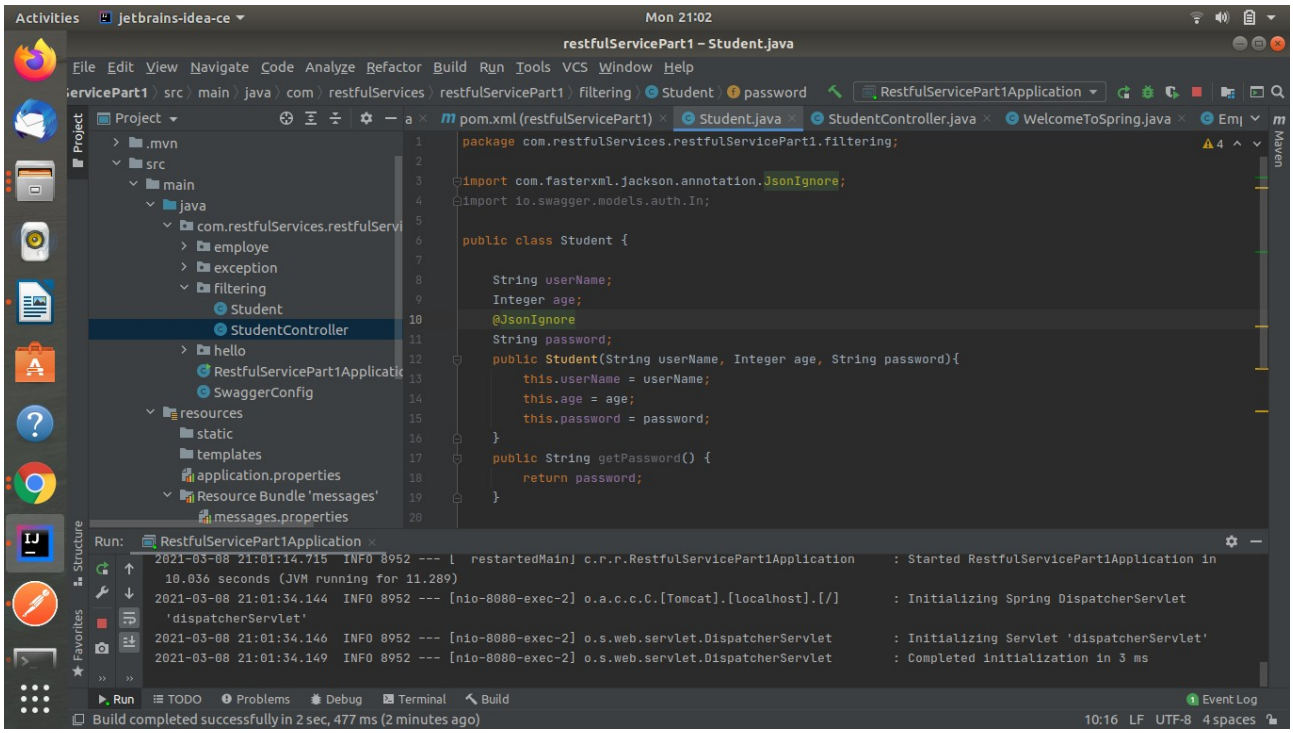

Activities
jetbrains-idea-ce
Tue 10:41
restfulServicePart1 – EmployeeResourse.java
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
RestfulServicePart1Application
Project
restfulServicePart1 ~/IdeaProjects/restf
.idea
.mvn
src
main
java
com.restfulServices.restfulServi
employe
Employee
EmployeeDaoService
EmployeeNotFoundExcept
EmployeeResourse
exception
CustomizedResponseEntit
ExceptionResponse
filtering
Student
StudentController
hello
ioService.java
Employee.java
StudentController.java
WelcomeToSpring.java
EmployeeResourse.java
@RestController
public class EmployeeResourse {
@Autowired
private EmployeeDaoService service;
@GetMapping(path = "/employees")
@ApiModelProperty(notes = "All employees details")
public List<Employee> getAllEmp() { return service.findAll(); }
@GetMapping(path = "/employees/{id}")
@ApiModelProperty(notes = "employee detail")
public EntityModel<Employee> getEmp(@PathVariable int id){
Employee emp = service.findOne(id);
if(emp == null) throw new EmployeeNotFoundException("id- " + id);
EntityModel<Employee> resource = EntityModel.of(emp);
WebMvcLinkBuilder linkTo = linkTo(methodOn(this.getClass()).getAllEmp());
resource.add(linkTo.withRel("all-employees"));
return resource;
Run: RestfulServicePart1Application
2021-03-09 10:39:57.239 INFO 18062 --- [restartedMain] c.r.r.RestfulServicePart1Application : Started RestfulServicePart1Application in
8.33 seconds (JVM running for 9.26)
2021-03-09 10:40:06.342 INFO 18062 --- [nio-8080-exec-1] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring DispatcherServlet
'dispatcherServlet'
2021-03-09 10:40:06.342 INFO 18062 --- [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : Initializing Servlet 'dispatcherServlet'
2021-03-09 10:40:06.344 INFO 18062 --- [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : Completed initialization in 2 ms
Run TODO Problems Debug Terminal Build
Event Log
Build completed successfully in 2 sec, 453 ms (a minute ago)
60:47 LF UTF-8 4 spaces

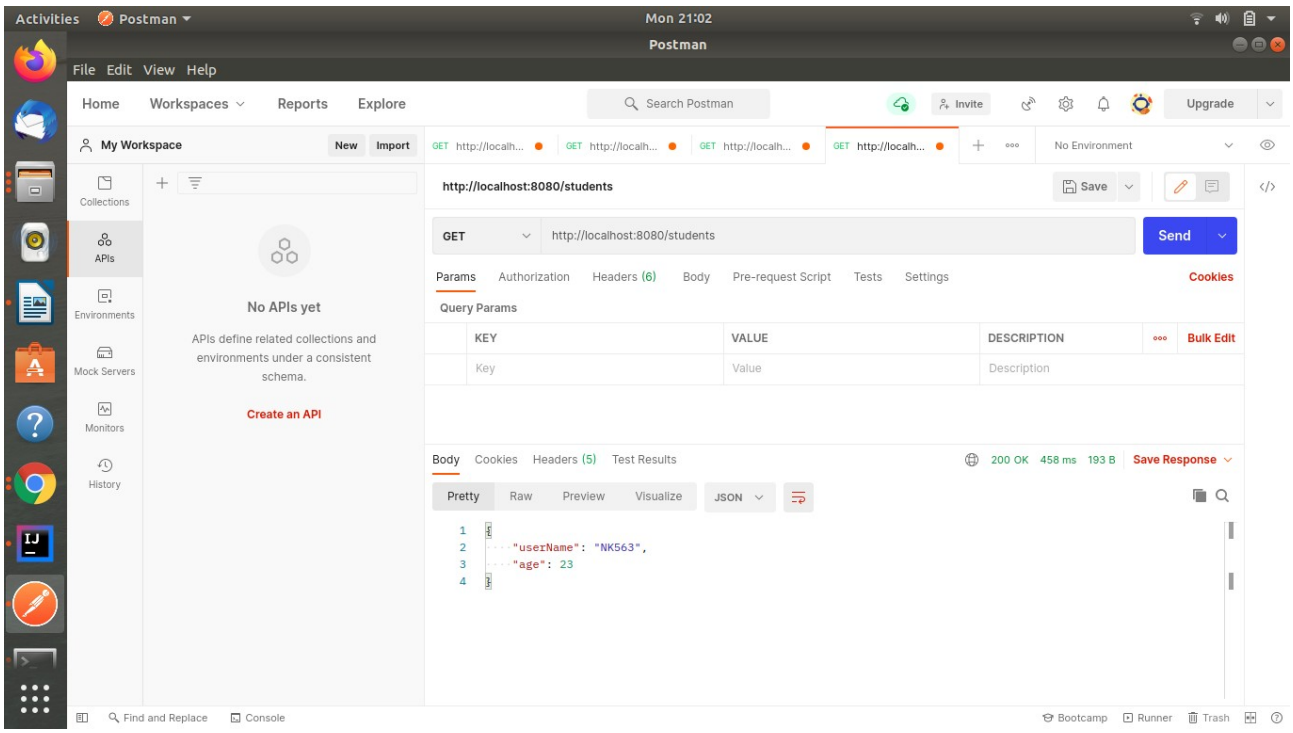

Activities
jetbrains-idea-ce
Tue 12:10
restfulServicePart1 – Employee.java
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
RestfulServicePart1Application
Project
src
main
java
com.restfulServices.restfulServi
employe
Employee
EmployeeDaoService
EmployeeNotFoundExcept
EmployeeResourse
exception
CustomizedResponseEntit
ExceptionResponse
filtering
Student
StudentController
hello
HelloWorldRestController
WelcomeToSpring
versioning
Name
Person1
Person2
VersionController
RestfulServicePart1Applicatic
SwaggerConfig
rvice.java
Employee.java
HelloWorldRestController.java
StudentController.java
WelcomeToSpring.java
import io.swagger.annotations.ApiModel;
import io.swagger.annotations.ApiModelProperty;
import javax.validation.constraints.Max;
import javax.validation.constraints.Min;
import javax.validation.constraints.Pattern;
import javax.validation.constraints.Size;
@ApiModel(description = "Employee details")
public class Employee {
@ApiModelProperty(notes = "Should be unique")
Integer id;
@ApiModelProperty(notes = "Should be of string type")
@Pattern(regexp = "[a-zA-Z][a-zA-Z]*")
@Size(min = 2)
String name;
@ApiModelProperty(notes = "Should be between 18 to 60")
@Min(value = 18)
@Max(value = 60)
Integer age;
protected Employee(){
}
Employee(Integer id, String name, Integer age){
Run: RestfulServicePart1Application
Run TODO Problems Debug Terminal Build
Event Log
Build completed successfully in 2 sec, 453 ms (today 10:39 AM)
26:1

*Static and Dynamic filtering

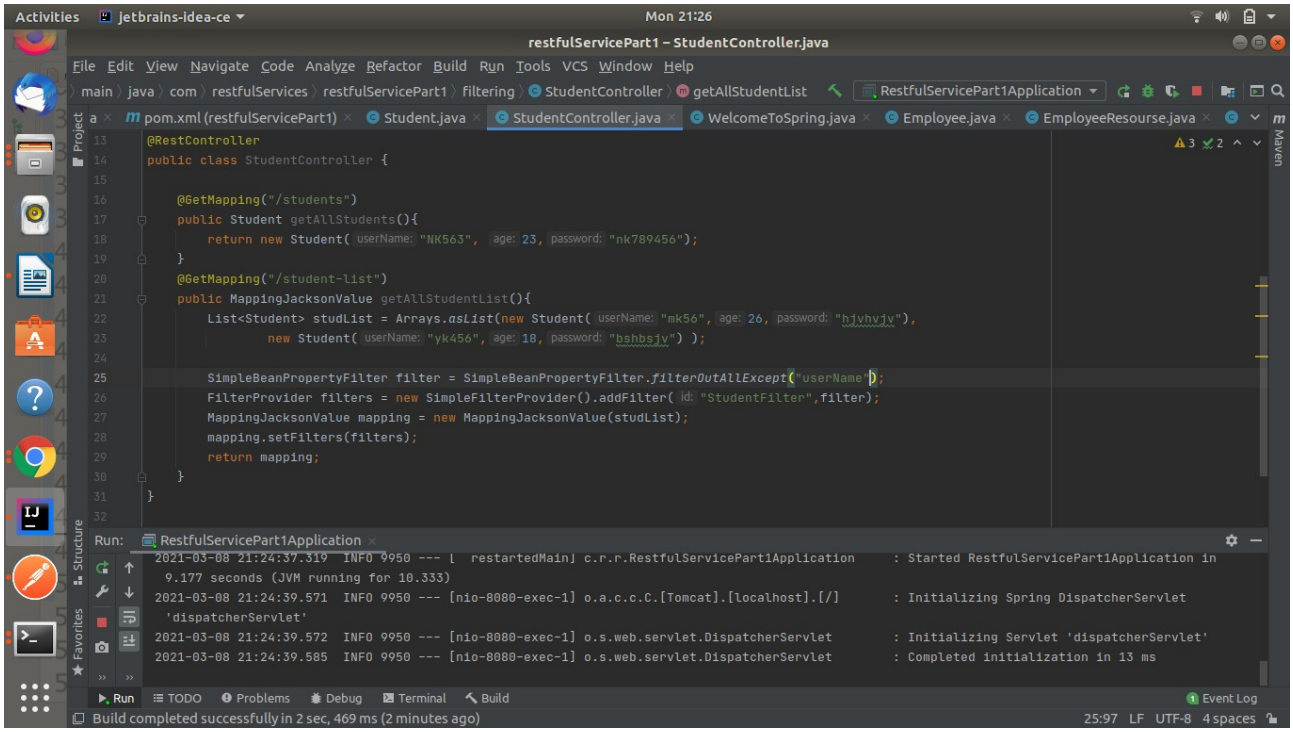
8. Create API which saves details of User (along with the password) but on successfully saving returns only non-critical data. (Use static filtering)

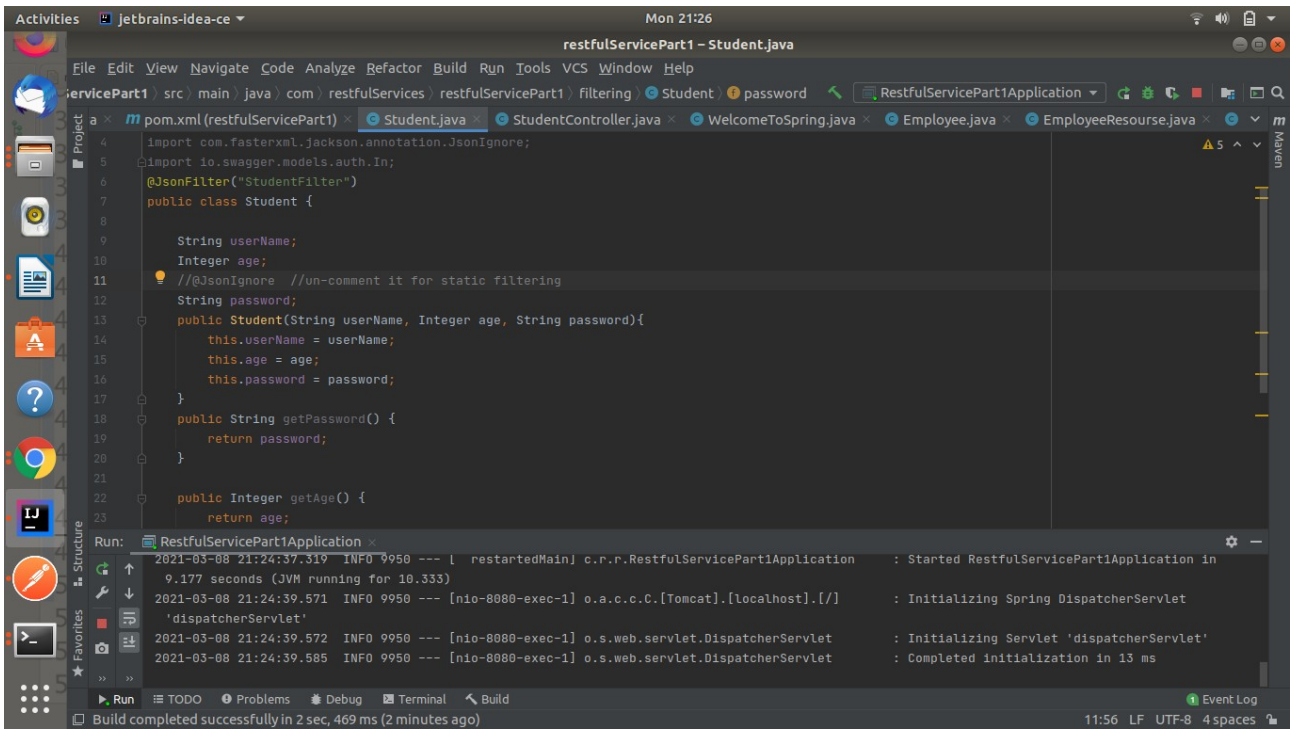


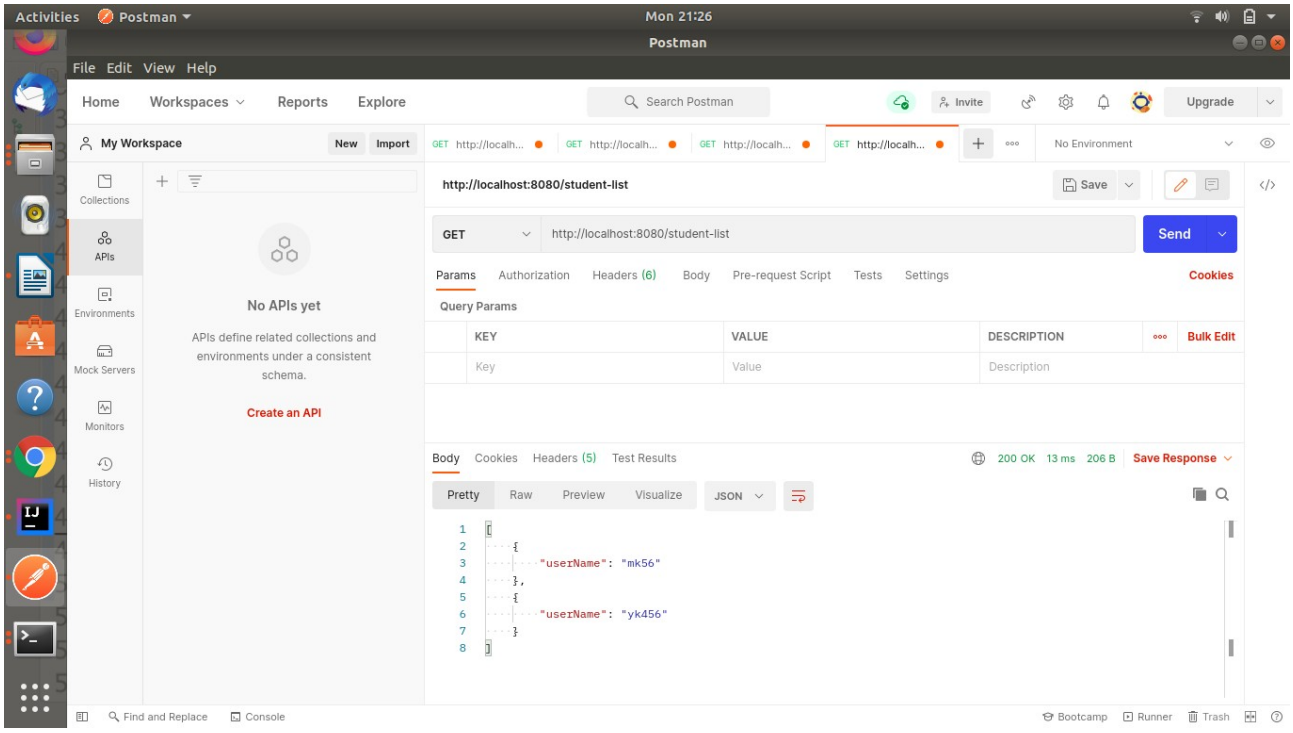




9. Create another API that does the same by using Dynamic Filtering.







*Versioning Restful APIs

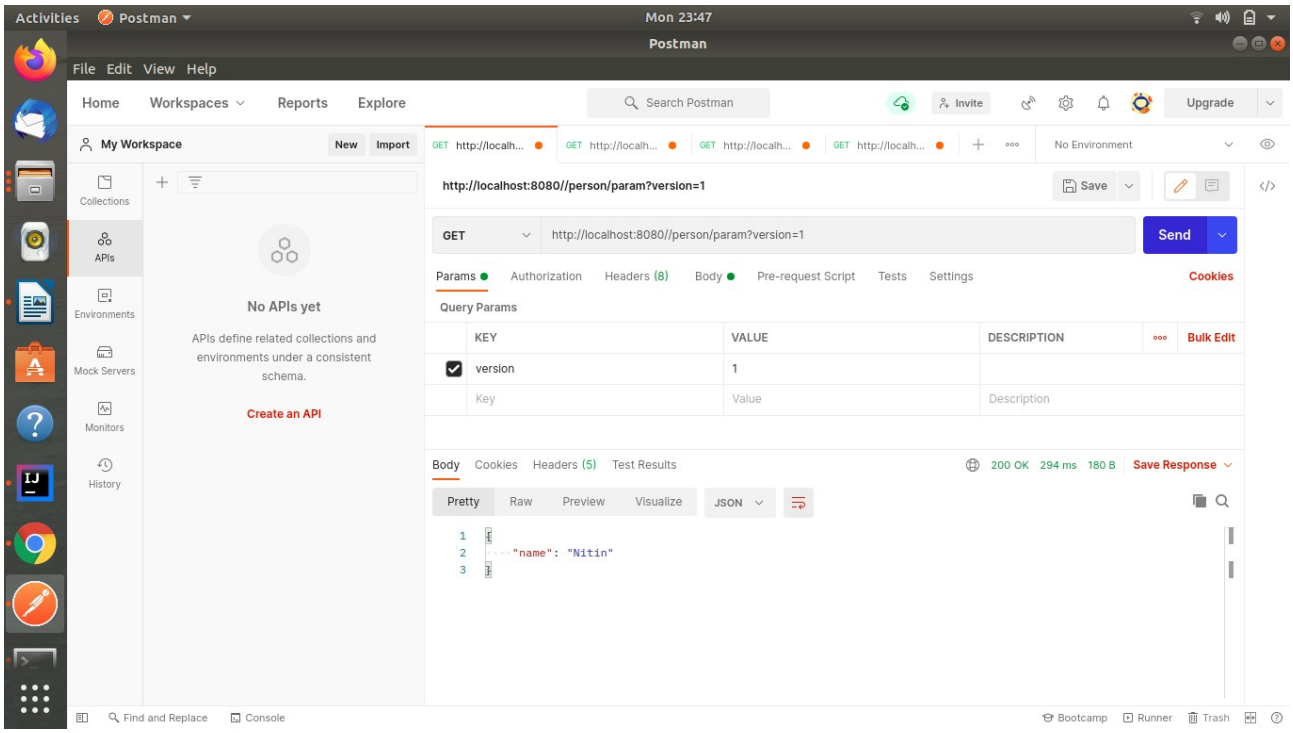
10. Create 2 API for showing user details. The first api should return only basic details of the user and the other API should return more/enhanced details of the user,

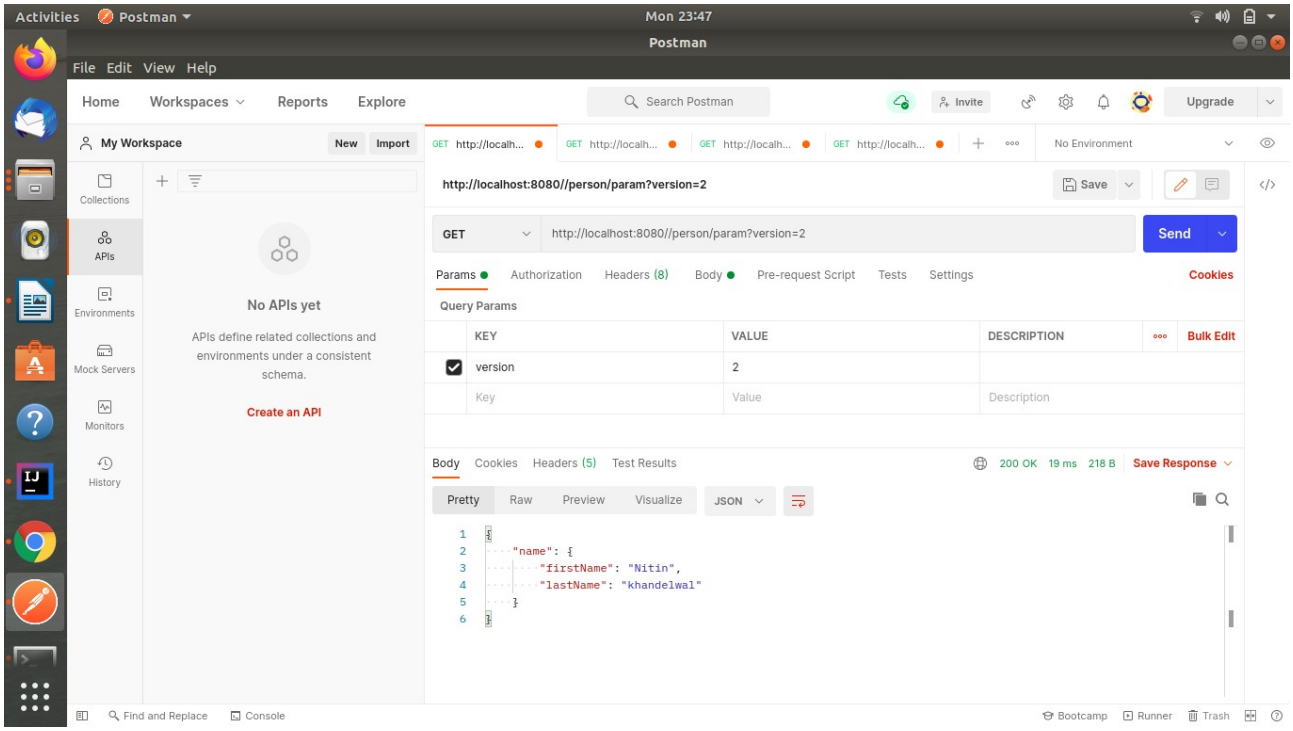
Now apply versioning using the following methods:

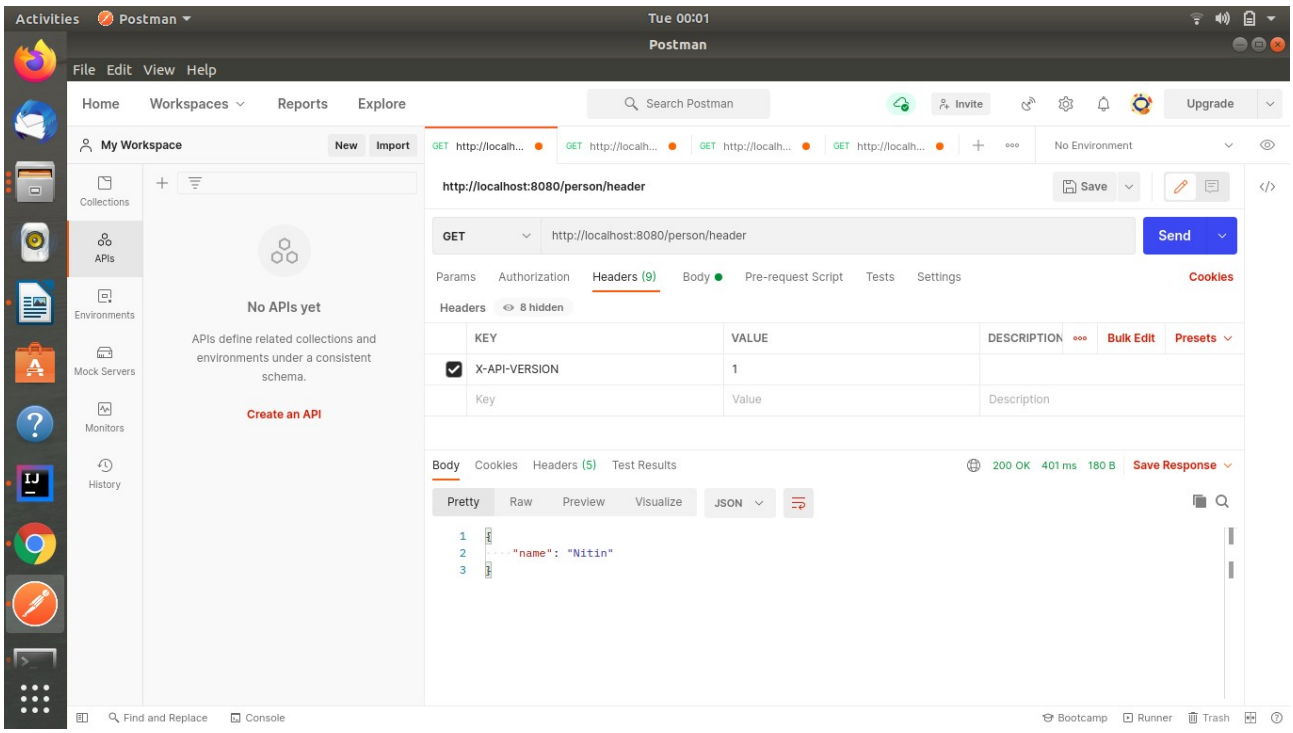
- •MimeType Versioning
- •Request Parameter versioning

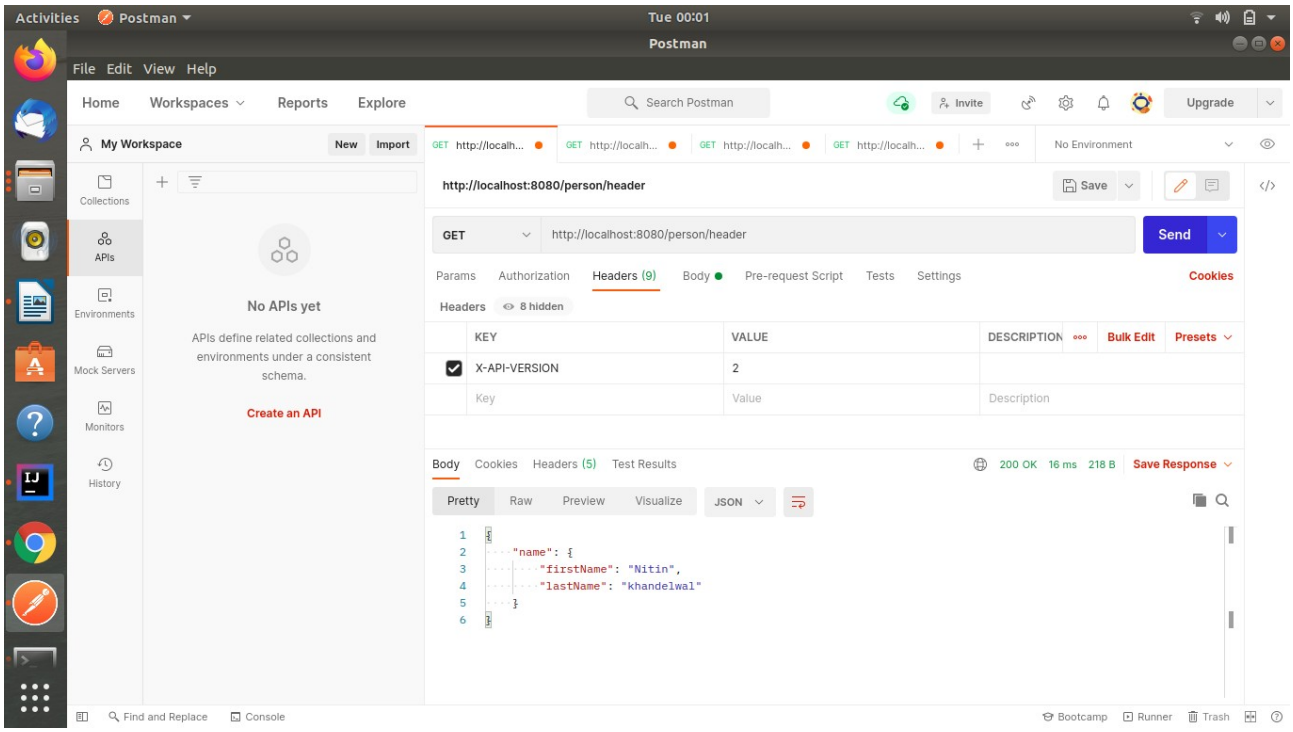
•URI versioning

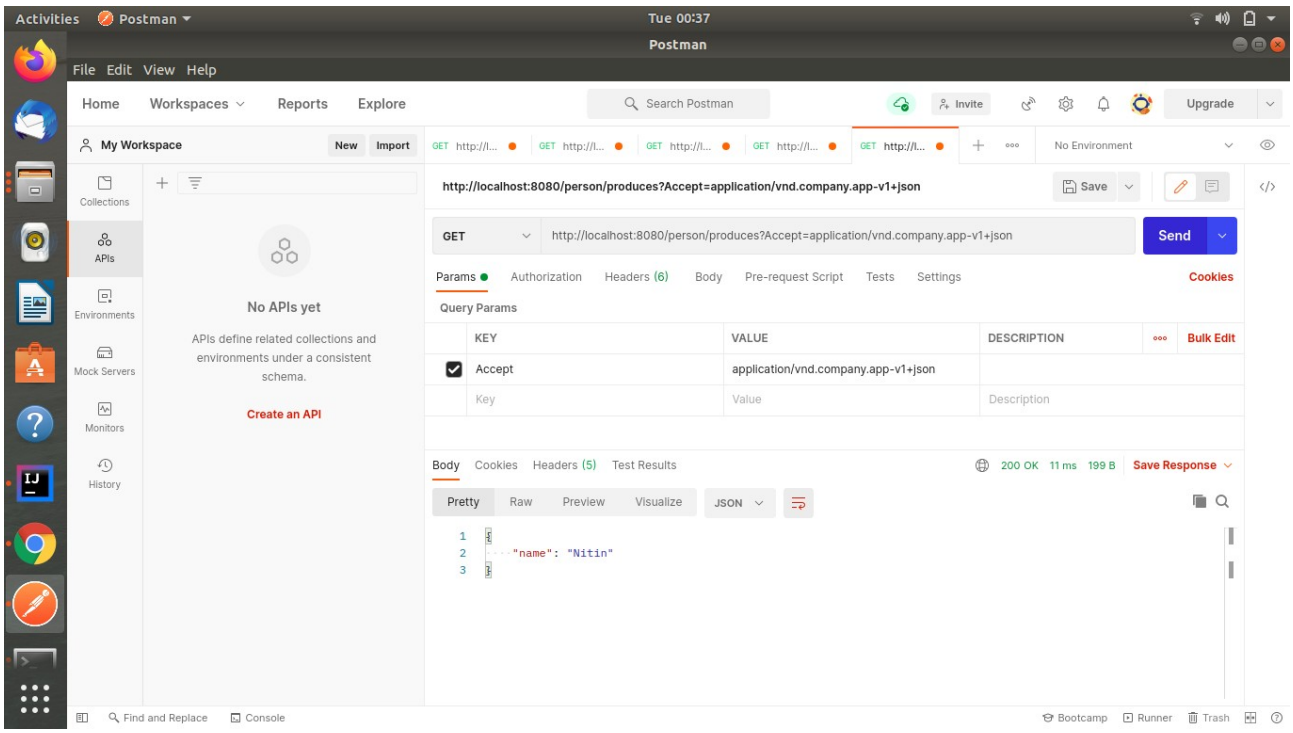
•Custom Header Versioning

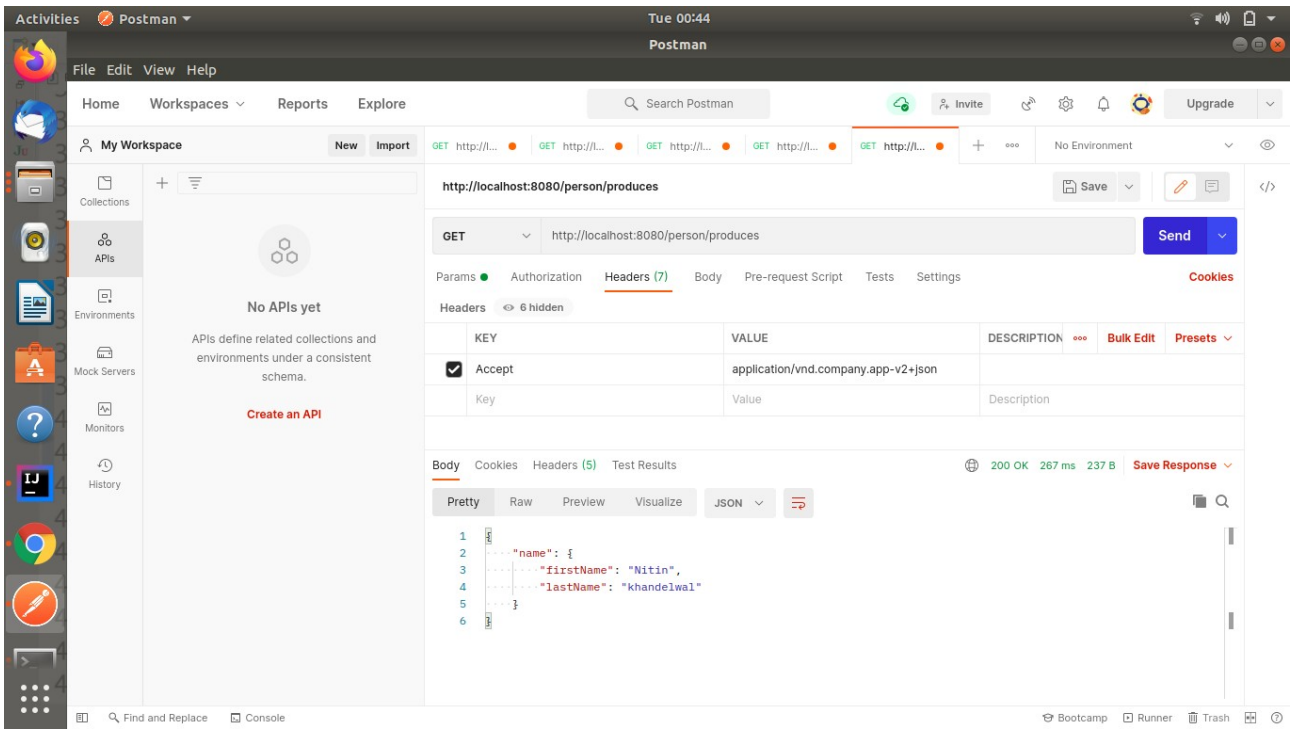


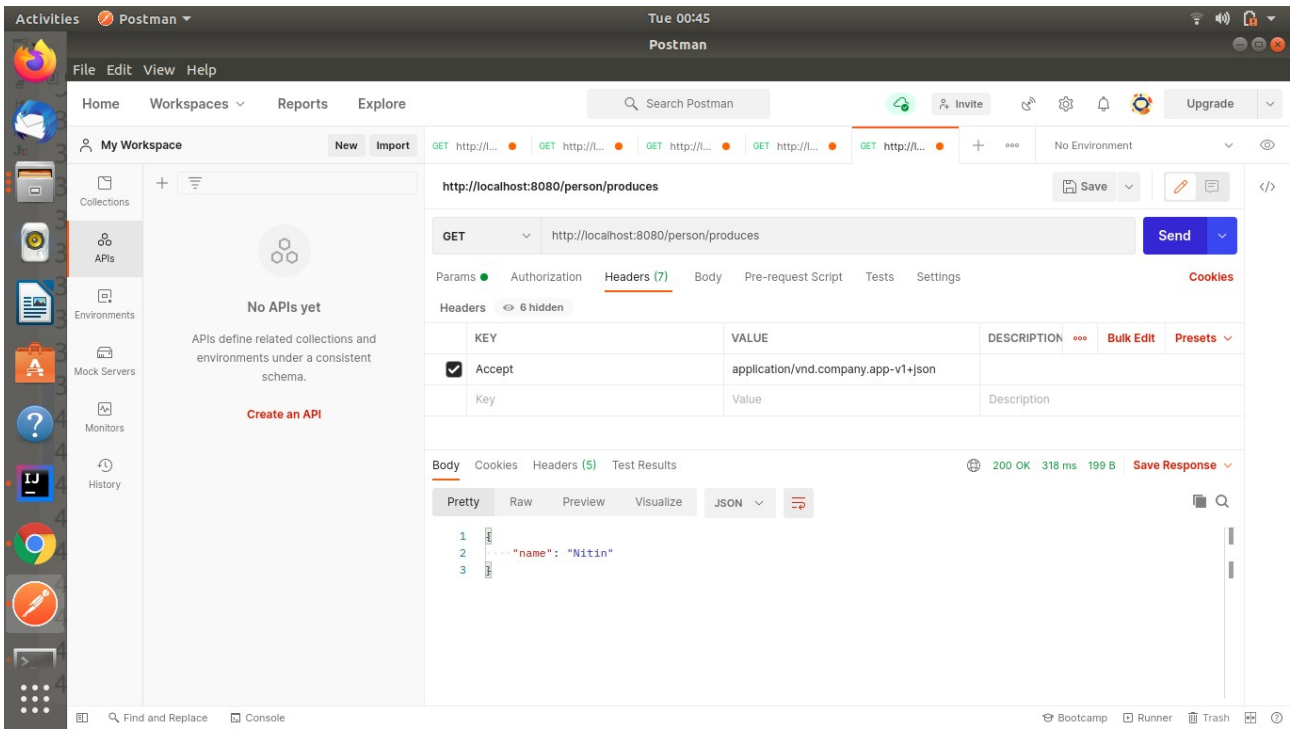



Activities
Postman
Tue 00:01
Postman
File Edit View Help
Home
Workspaces
Reports
Explore
Search Postman
Invite
Upgrade
My Workspace
New
Import
No Environment
Collections
APIs
Environments
Mock Servers
Monitors
History
No APIs yet
APIs define related collections and environments under a consistent schema.
Create an API
http://localhost:8080/person/header
Save
GET
http://localhost:8080/person/header
Send
Params
Authorization
Headers (9)
Body
Pre-request Script
Tests
Settings
Cookies
Headers
8 hidden
KEY
VALUE
DESCRIPTION
Bulk Edit
Presets
X-API-VERSION
1
Key
Value
Description
Body
Cookies
Headers (5)
Test Results
200 OK
401 ms
180 B
Save Response
Pretty
Raw
Preview
Visualize
JSON
1 {
2 "name": "Nitin"
3 }
Find and Replace
Console
Bootcamp
Runner
Trash


Activities
Postman
Tue 00:01
Postman
File Edit View Help
Home
Workspaces
Reports
Explore
Search Postman
Invite
Upgrade
My Workspace
New
Import
No Environment
Collections
APIs
Environments
Mock Servers
Monitors
History
No APIs yet
APIs define related collections and environments under a consistent schema.
Create an API
http://localhost:8080/person/header
Save
GET
http://localhost:8080/person/header
Send
Params
Authorization
Headers (9)
Body
Pre-request Script
Tests
Settings
Cookies
Headers
8 hidden
KEY
VALUE
DESCRIPTION
Bulk Edit
Presets
X-API-VERSION
2
Key
Value
Description
Body
Cookies
Headers (5)
Test Results
200 OK
16 ms
218 B
Save Response
Pretty
Raw
Preview
Visualize
JSON
1 {
2 "name": {
3 "firstName": "Nitin",
4 "lastName": "khandelwal"
5 }
6 }
Find and Replace
Console
Bootcamp
Runner
Trash


Activities
Postman
Tue 00:37
Postman
File Edit View Help
Home
Workspaces
Reports
Explore
Search Postman
Invite
Upgrade
My Workspace
New
Import
No Environment
Collections
APIs
Environments
Mock Servers
Monitors
History
No APIs yet
APIs define related collections and environments under a consistent schema.
Create an API
http://localhost:8080/person/produces?Accept=application/vnd.company.app-v1+json
Save
GET
http://localhost:8080/person/produces?Accept=application/vnd.company.app-v1+json
Send
Params
Authorization
Headers (6)
Body
Pre-request Script
Tests
Settings
Cookies
Query Params
KEY
VALUE
DESCRIPTION
Bulk Edit
Accept
application/vnd.company.app-v1+json
Key
Value
Description
Body
Cookies
Headers (5)
Test Results
200 OK
11 ms
199 B
Save Response
Pretty
Raw
Preview
Visualize
JSON
{
"name": "Nitin"
}
Find and Replace
Console
Bootcamp
Runner
Trash


Activities
Postman
Tue 00:44
Postman
File Edit View Help
Home
Workspaces
Reports
Explore
Search Postman
Invite
Upgrade
My Workspace
New
Import
No Environment
Collections
APIs
Environments
Mock Servers
Monitors
History
No APIs yet
APIs define related collections and environments under a consistent schema.
Create an API
http://localhost:8080/person/produces
Save
GET
http://localhost:8080/person/produces
Send
Params
Authorization
Headers (7)
Body
Pre-request Script
Tests
Settings
Cookies
Headers
6 hidden
KEY
VALUE
DESCRIPTION
Bulk Edit
Presets
Accept
application/vnd.company.app-v2+json
Key
Value
Description
Body
Cookies
Headers (5)
Test Results
200 OK
267 ms
237 B
Save Response
Pretty
Raw
Preview
Visualize
JSON
{
"name": {
"firstName": "Nitin",
"lastName": "khandelwal"
}
}
Find and Replace
Console
Bootcamp
Runner
Trash


Activities
Postman
Tue 00:45
Postman
File Edit View Help
Home
Workspaces
Reports
Explore
Search Postman
Invite
Upgrade
My Workspace
New
Import
No Environment
Collections
APIs
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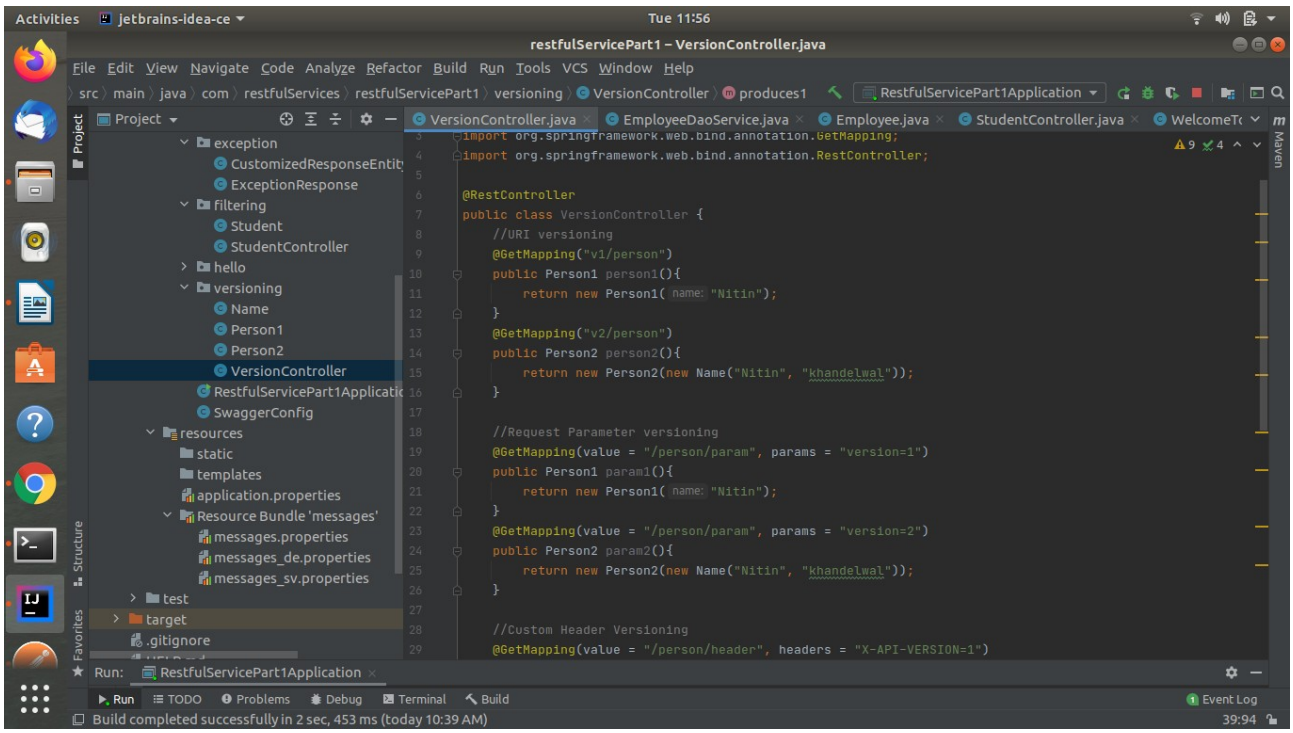
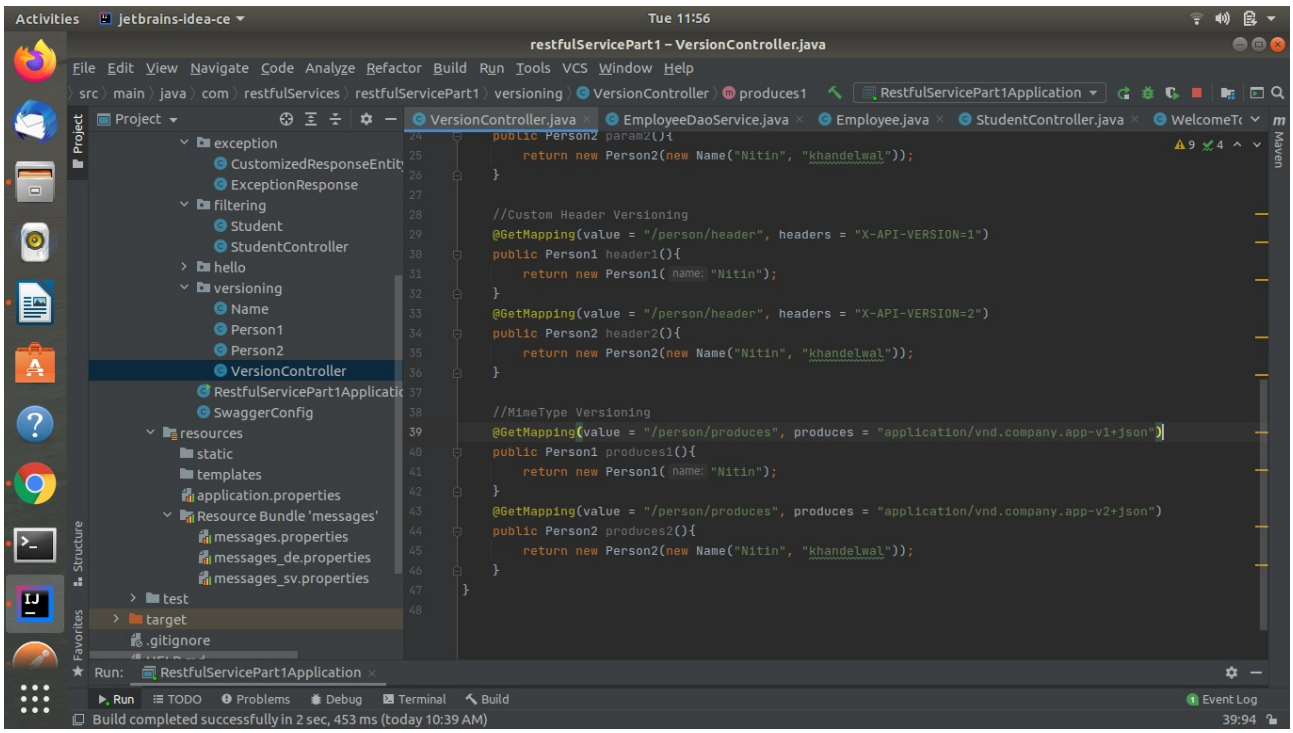
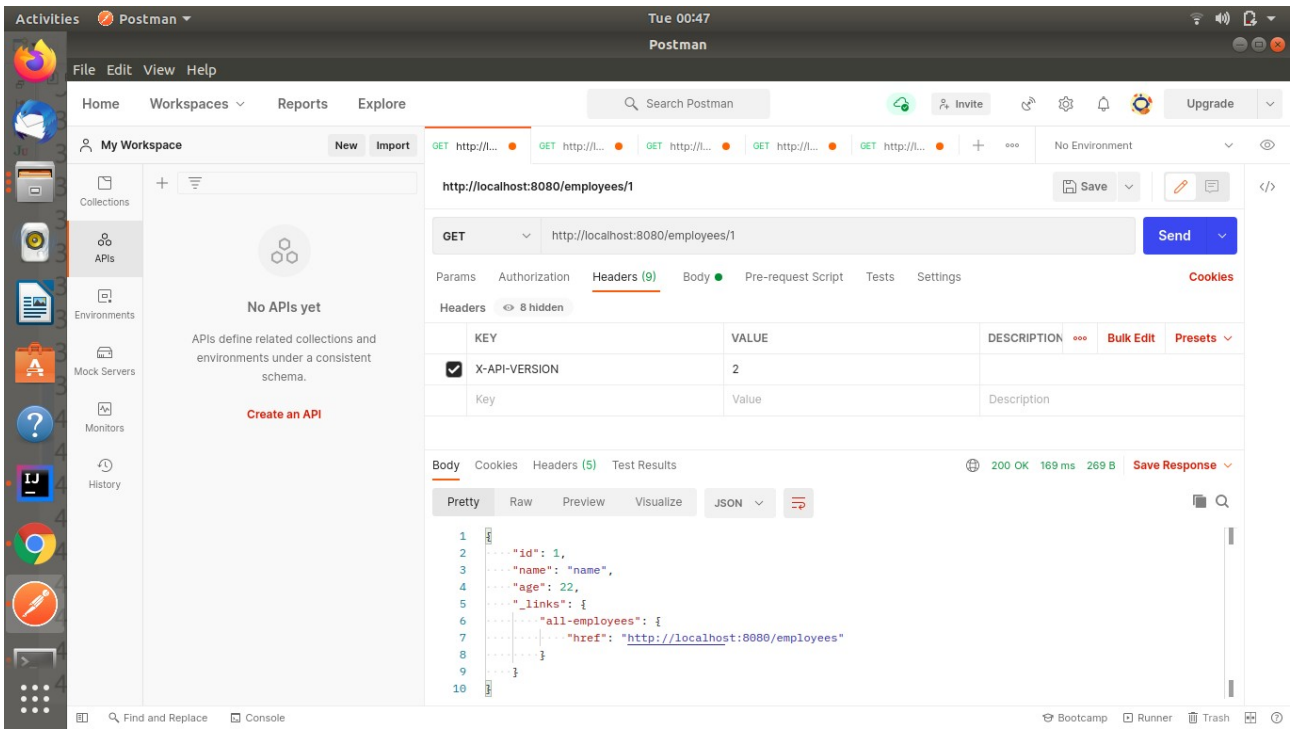
APIs define related collections and environments under a consistent schema.
Create an API
http://localhost:8080/person/produces
Save
GET
http://localhost:8080/person/produces
Send
Params
Authorization
Headers (7)
Body
Pre-request Script
Tests
Settings
Cookies
Headers
6 hidden
KEY
VALUE
DESCRIPTION
Bulk Edit
Presets
Accept
application/vnd.company.app-v1+json
Key
Value
Description
Body
Cookies
Headers (5)
Test Results
200 OK
318 ms
199 B
Save Response
Pretty
Raw
Preview
Visualize
JSON
{
"name": "Nitin"
}
Find and Replace
Console
Bootcamp
Runner
Trash

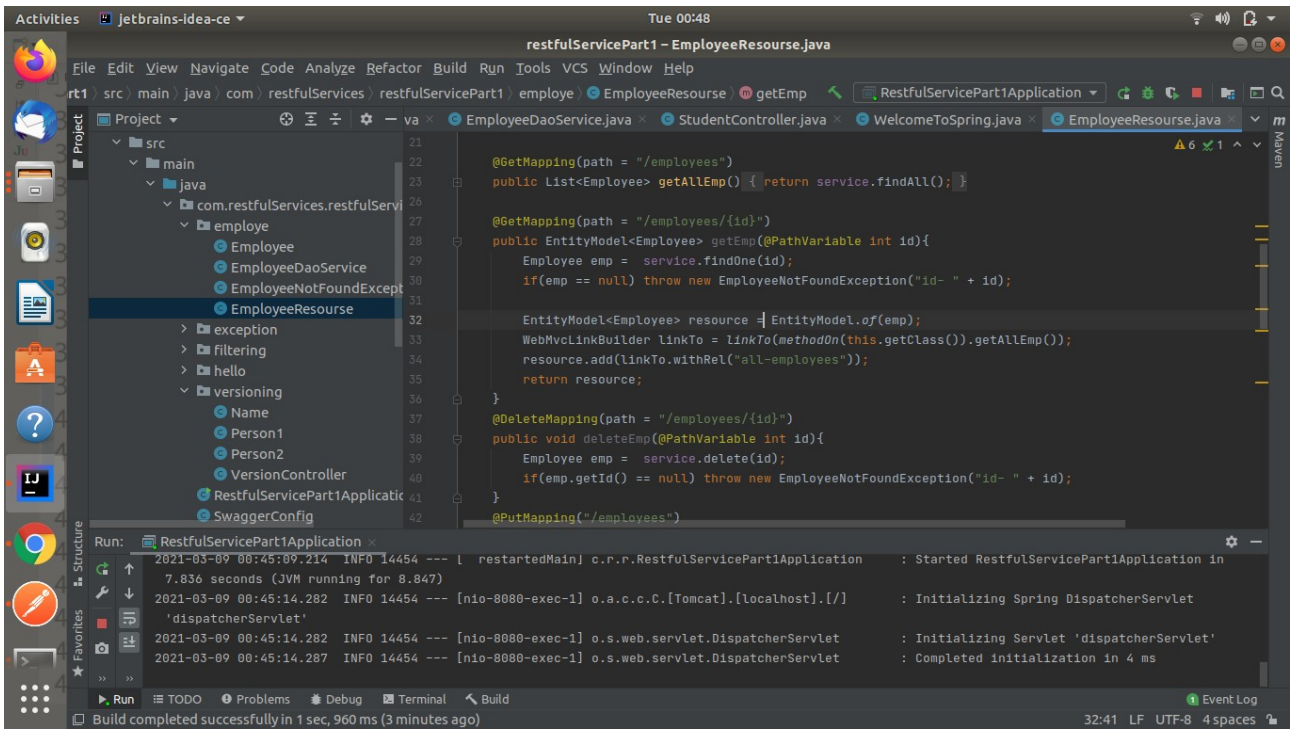

Activities
jetbrains-idea-ce
Tue 11:56
restfulServicePart1 – VersionController.java
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
src main java com restfulServices restfulServicePart1 versioning VersionController produces1
RestfulServicePart1Application
Project
VersionController.java
EmployeeDaoService.java
Employee.java
StudentController.java
exception
CustomizedResponseEntity
ExceptionResponse
filtering
Student
StudentController
hello
versioning
Name
Person1
Person2
VersionController
RestfulServicePart1Applicatic
SwaggerConfig
resources
static
templates
application.properties
Resource Bundle 'messages'
messages.properties
messages_de.properties
messages_sv.properties
test
target
.gitignore
import org.springframework.web.bind.annotation.GetMapping;
import org.springframework.web.bind.annotation.RestController;
@RestController
public class VersionController {
//URI versioning
@GetMapping("v1/person")
public Person1 person1(){
return new Person1(name: "Nitin");
}
@GetMapping("v2/person")
public Person2 person2(){
return new Person2(new Name("Nitin", "khandelwal"));
}
//Request Parameter versioning
@GetMapping(value = "/person/param", params = "version=1")
public Person1 param1(){
return new Person1(name: "Nitin");
}
@GetMapping(value = "/person/param", params = "version=2")
public Person2 param2(){
return new Person2(new Name("Nitin", "khandelwal"));
}
//Custom Header Versioning
@GetMapping(value = "/person/header", headers = "X-API-VERSION=1")
Run: RestfulServicePart1Application
Run
TODO
Problems
Debug
Terminal
Build
Event Log
Build completed successfully in 2 sec, 453 ms (today 10:39 AM)
39:94



*HATEOAS

11. Configure hateoas with your springboot application. Create an api which returns User Details along with url to show all topics.




Activities
jetbrains-idea-ce
Tue 00:48
restfulServicePart1 – EmployeeResourse.java
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
RestfulServicePart1Application
Project
EmployeeDaoService.java
StudentController.java
WelcomeToSpring.java
EmployeeResourse.java
@GetMapping(path = "/employees")
public List<Employee> getAllEmp() { return service.findAll(); }
@GetMapping(path = "/employees/{id}")
public EntityModel<Employee> getEmp(@PathVariable int id){
Employee emp = service.findOne(id);
if(emp == null) throw new EmployeeNotFoundException("id- " + id);
EntityModel<Employee> resource = EntityModel.of(emp);
WebMvcLinkBuilder linkTo = linkTo(methodOn(this.getClass()).getAllEmp());
resource.add(linkTo.withRel("all-employees"));
return resource;
}
@DeleteMapping(path = "/employees/{id}")
public void deleteEmp(@PathVariable int id){
Employee emp = service.delete(id);
if(emp.getId() == null) throw new EmployeeNotFoundException("id- " + id);
}
@PutMapping("/employees")
src
main
java
com.restfulServices.restfulServi
employe
Employee
EmployeeDaoService
EmployeeNotFoundExcept
EmployeeResourse
exception
filtering
hello
versioning
Name
Person1
Person2
VersionController
RestfulServicePart1Applicatic
SwaggerConfig
Run: RestfulServicePart1Application
2021-03-09 00:45:09.214 INFO 14454 --- [restartedMain] c.r.r.RestfulServicePart1Application : Started RestfulServicePart1Application in 7.836 seconds (JVM running for 8.847)
2021-03-09 00:45:14.282 INFO 14454 --- [nio-8080-exec-1] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring DispatcherServlet 'dispatcherServlet'
2021-03-09 00:45:14.282 INFO 14454 --- [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : Initializing Servlet 'dispatcherServlet'
2021-03-09 00:45:14.287 INFO 14454 --- [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : Completed initialization in 4 ms
Run
TODO
Problems
Debug
Terminal
Build
Event Log
Build completed successfully in 1 sec, 960 ms (3 minutes ago)
32:41 LF UTF-8 4 spaces