

CPSC 476

Assignment -1

Name: Ajay Hosmar Shenoy

List of files created for the project

- CoinBean
- Coin – Model
- Operation – Model
- SimpleRest – Restful Web services
- index.xhtml – JSF Page
- Web.xml

Task 1: Implementing coin flipping page

- Step 1: Run the server.
- Step 2: Navigate to localhost:<port>/index.xhtml

Screenshots:

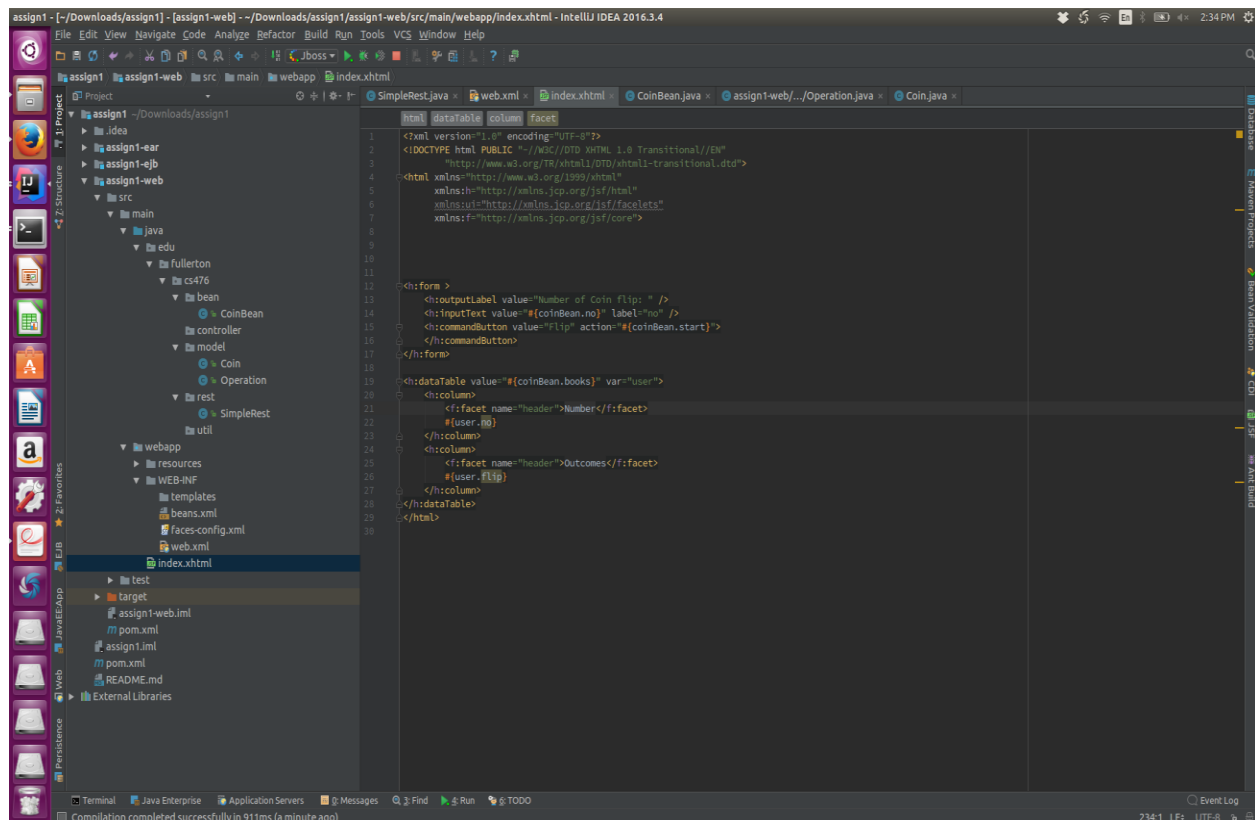


Figure 1 IntelliJ IDEA, Step 1

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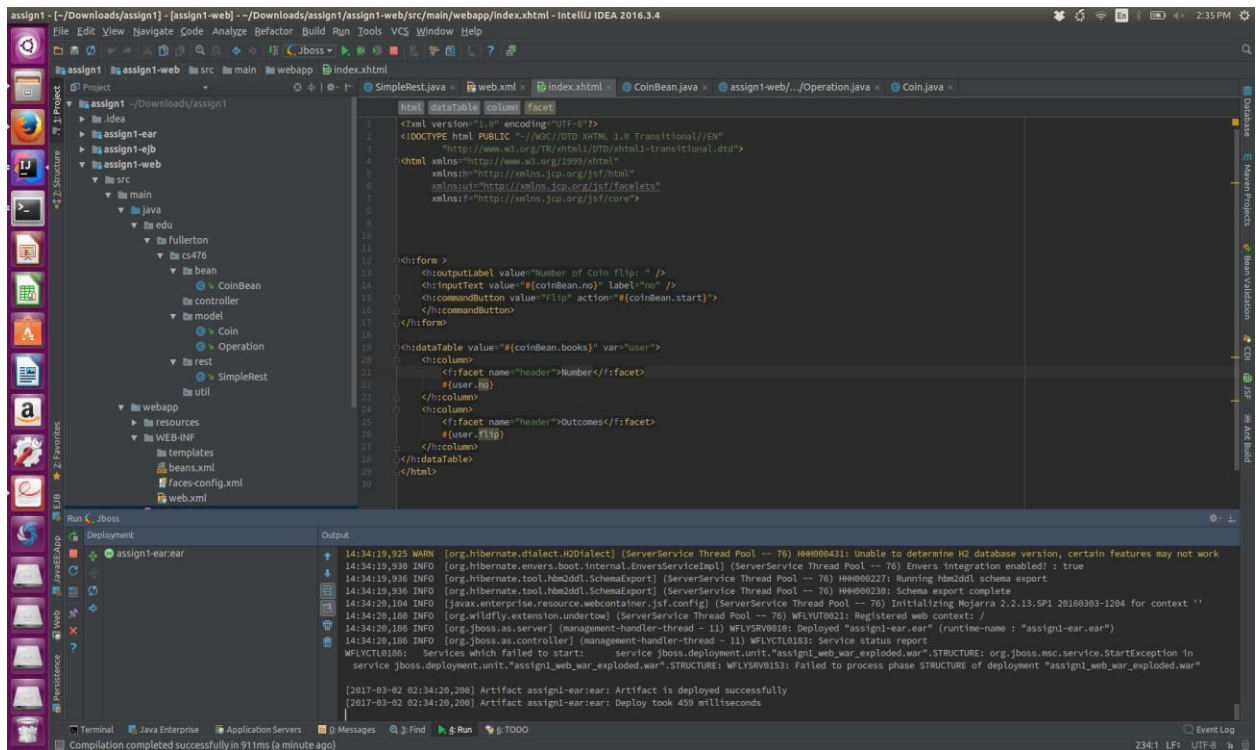


Figure 2 Server Setup, Step 1

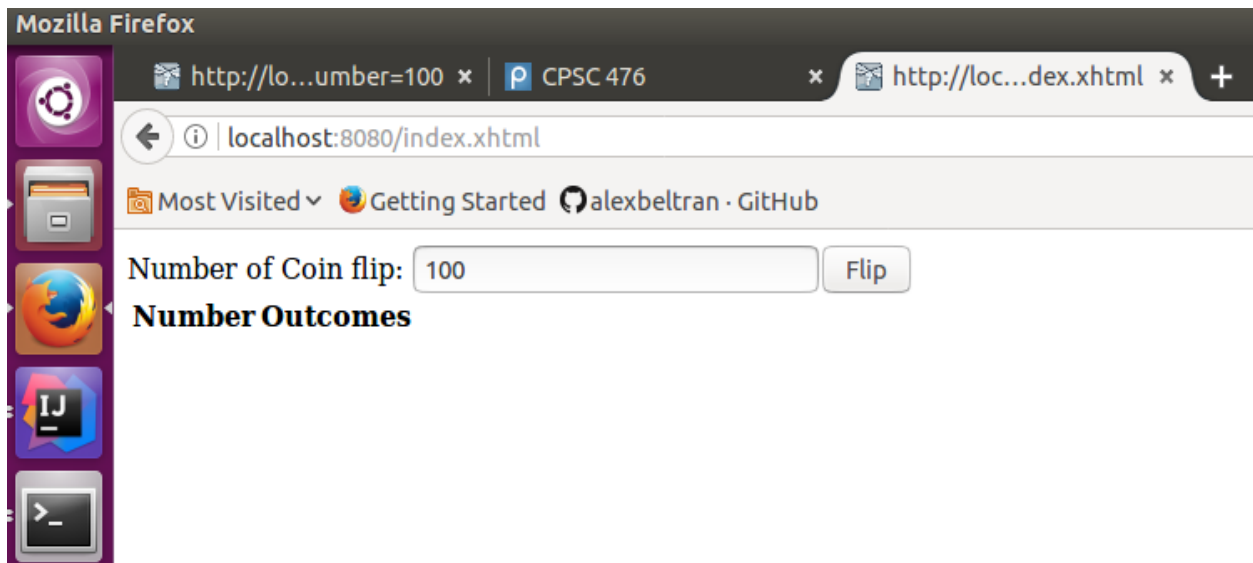


Figure 3 Coin flipping page, Step 2

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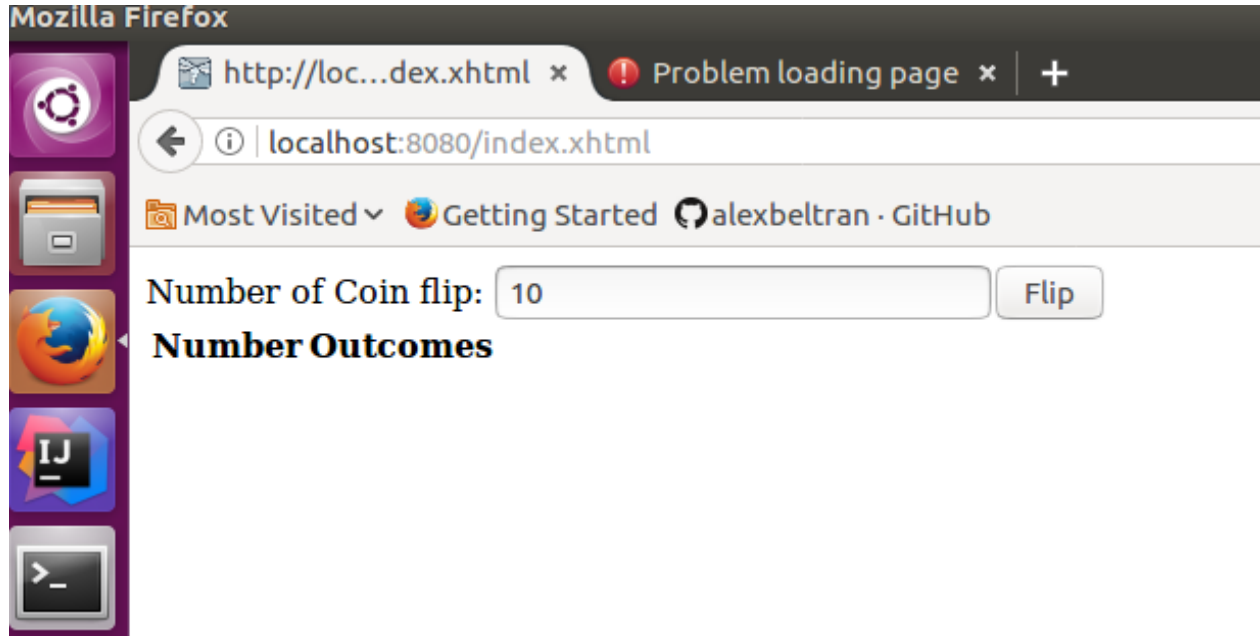


Figure 4 Coin flipping Input 1, Step 2

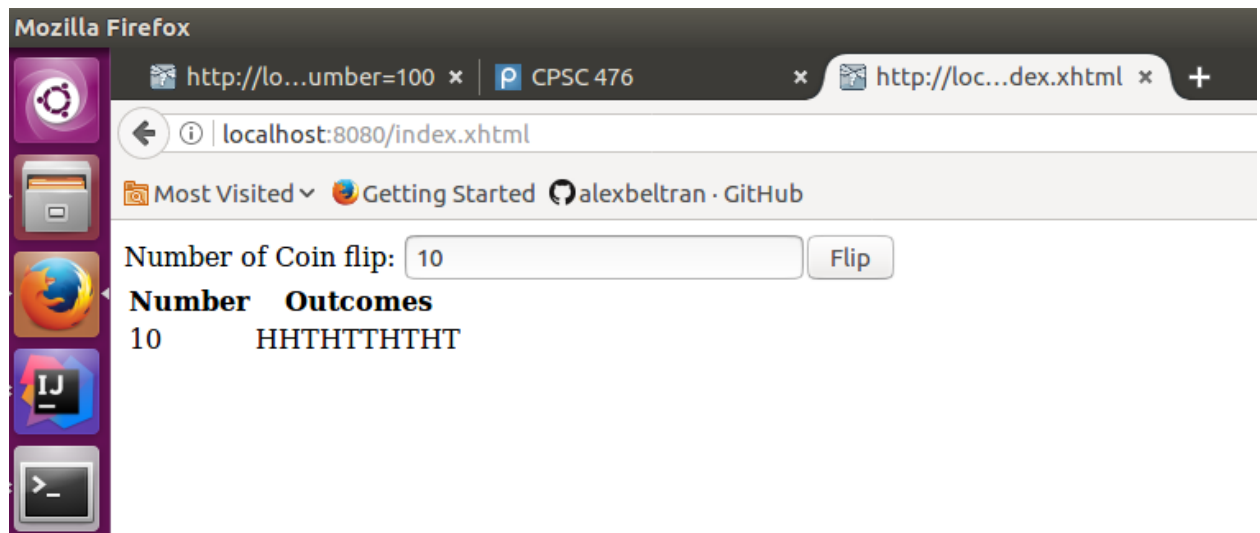


Figure 5 Coin flipping Result 1, Step 2

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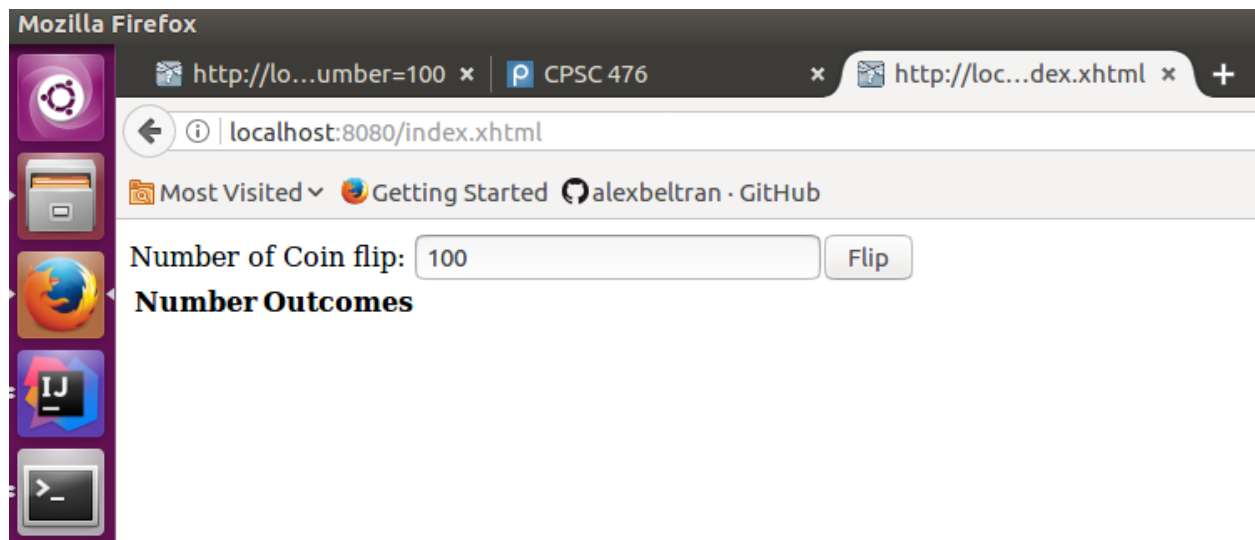


Figure 6 Coin flipping Input 2, Step 2

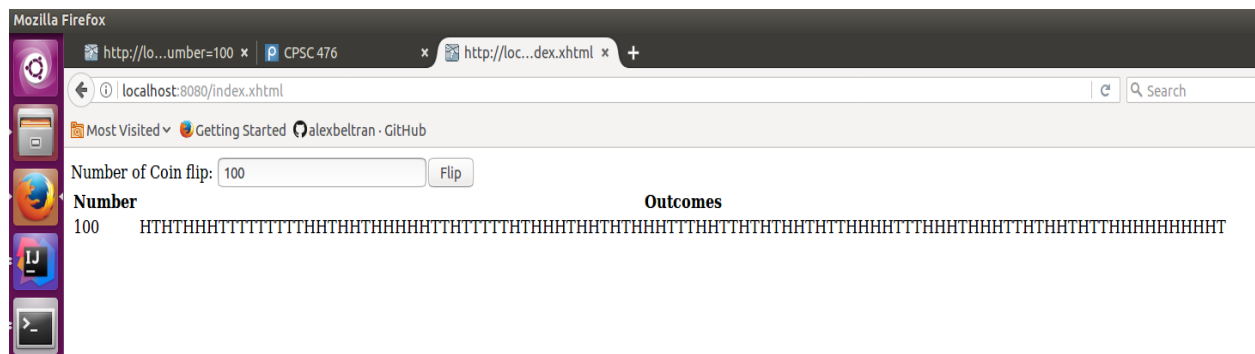


Figure 7 Coin flipping Result 2, Step 2

Task 2: Implement the coin flipping page as a Restful Web API.

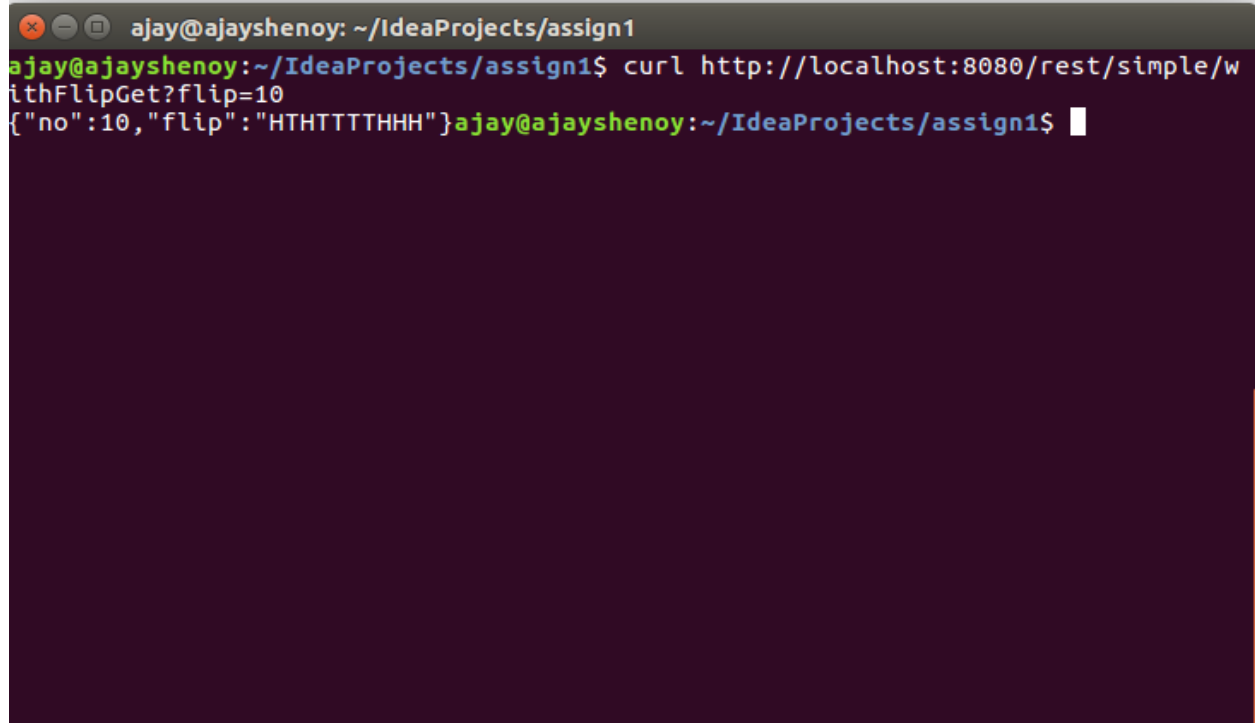
- Step 1: Implement GET Method by curl <http://localhost:<port>/rest/simple/withFlipGet?flips=10>
- Step 2: Implement POST Method by curl -request POST
'http://localhost:8080/rest/simple/withFlipPost' -data-urlencode "flip=10" -header "Accept:application/json"

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Screenshots:

A terminal window with a dark purple background. The title bar shows window control icons and the text 'ajay@ajayshenoy: ~/IdeaProjects/assign1'. The prompt is 'ajay@ajayshenoy:~/IdeaProjects/assign1\$'. The command 'curl http://localhost:8080/rest/simple/withFlipGet?flip=10' is entered. The output is '{"no":10,"flip":"HTHTTTTHHH"}'.

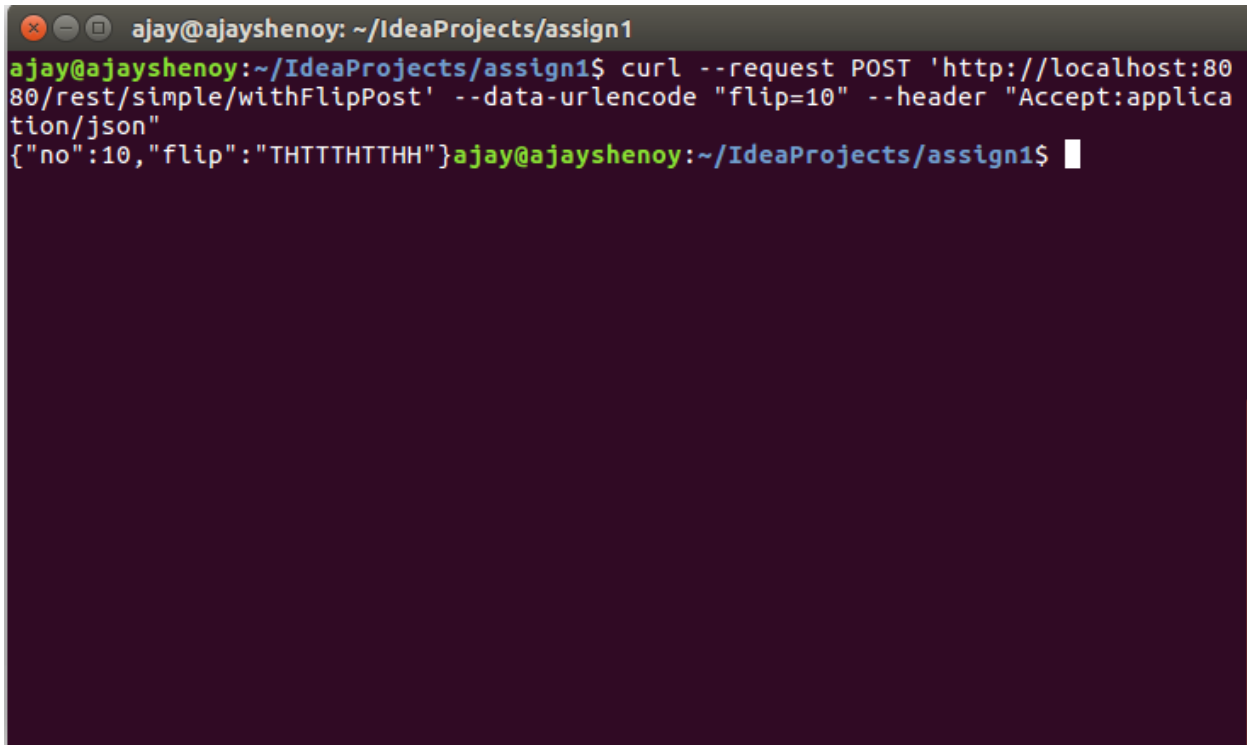
```
ajay@ajayshenoy: ~/IdeaProjects/assign1
ajay@ajayshenoy:~/IdeaProjects/assign1$ curl http://localhost:8080/rest/simple/withFlipGet?flip=10
{"no":10,"flip":"HTHTTTTHHH"}ajay@ajayshenoy:~/IdeaProjects/assign1$
```

Figure 8 GET Method, Step 1

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A terminal window with a dark background. The title bar shows 'ajay@ajayshenoy: ~/IdeaProjects/assign1'. The prompt is 'ajay@ajayshenoy:~/IdeaProjects/assign1\$'. The command entered is 'curl --request POST 'http://localhost:8080/rest/simple/withFlipPost' --data-urlencode "flip=10" --header "Accept:application/json"'. The output is '{"no":10,"flip":"TTTTHTTHH"}'.

```
ajay@ajayshenoy: ~/IdeaProjects/assign1
ajay@ajayshenoy:~/IdeaProjects/assign1$ curl --request POST 'http://localhost:8080/rest/simple/withFlipPost' --data-urlencode "flip=10" --header "Accept:application/json"
{"no":10,"flip":"TTTTHTTHH"}ajay@ajayshenoy:~/IdeaProjects/assign1$
```

Figure 9 Post Method, Step 2

Task 3: Implement a Restful Web API that can perform addition, subtraction, multiplication, and division on two numbers.

- Step 1: Perform addition by curl
<http://localhost:<port>/rest/simple/add?firstNumber=2&secondNumber=4>
- Step 2: Perform subtraction by curl
<http://localhost:<port>/rest/simple/subtract?firstNumber=2&secondNumber=4>
- Step 3: Perform multiplication by curl
<http://localhost:<port>/rest/simple/multiply?firstNumber=2&secondNumber=4>
- Step 4: Perform division by curl
<http://localhost:<port>/rest/simple/divide?firstNumber=2&secondNumber=4>

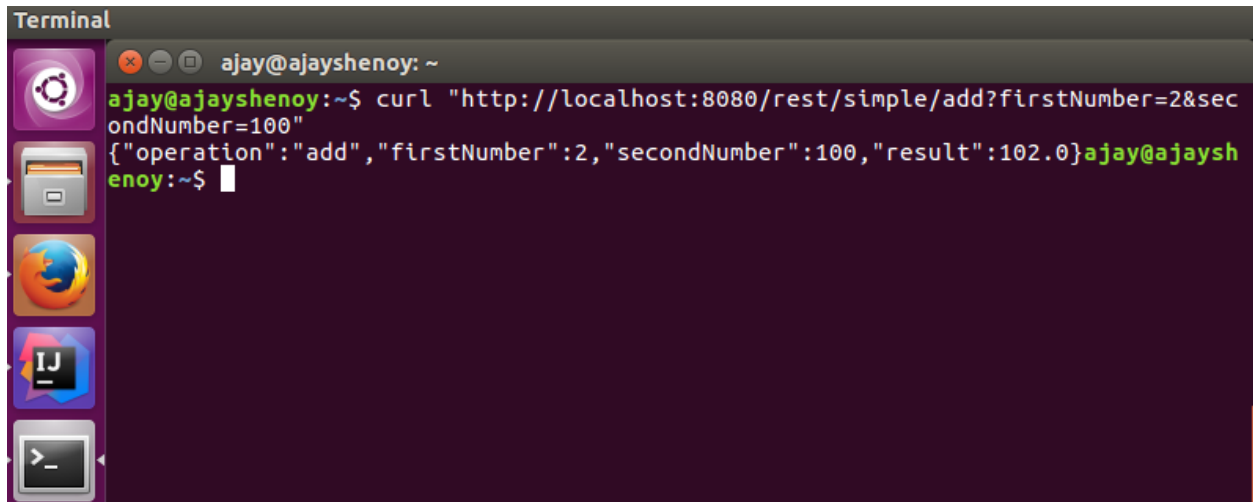
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Screenshots:

- Addition



A terminal window titled "Terminal" with a dark background. The prompt is "ajay@ajayshenoy: ~". The user has entered the command: `curl "http://localhost:8080/rest/simple/add?firstNumber=2&secondNumber=100"`. The output is: `{"operation": "add", "firstNumber": 2, "secondNumber": 100, "result": 102.0}`. The user's name "ajay@ajayshenoy" is visible in the prompt area.

Figure 10 Addition Curl Input 1, Step 1



A Mozilla Firefox browser window. The address bar shows "http://lo...Number=4". The page content displays a JSON response: `{"operation": "add", "firstNumber": 2, "secondNumber": 4, "result": 6.0}`. The browser's "Most Visited" bar shows links to "Getting Started" and "alexbeltran · GitHub".

Figure 11 Addition Web Input 1, Step 1

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Figure 12 Addition Web Input 2, Step 1

- Subtraction:

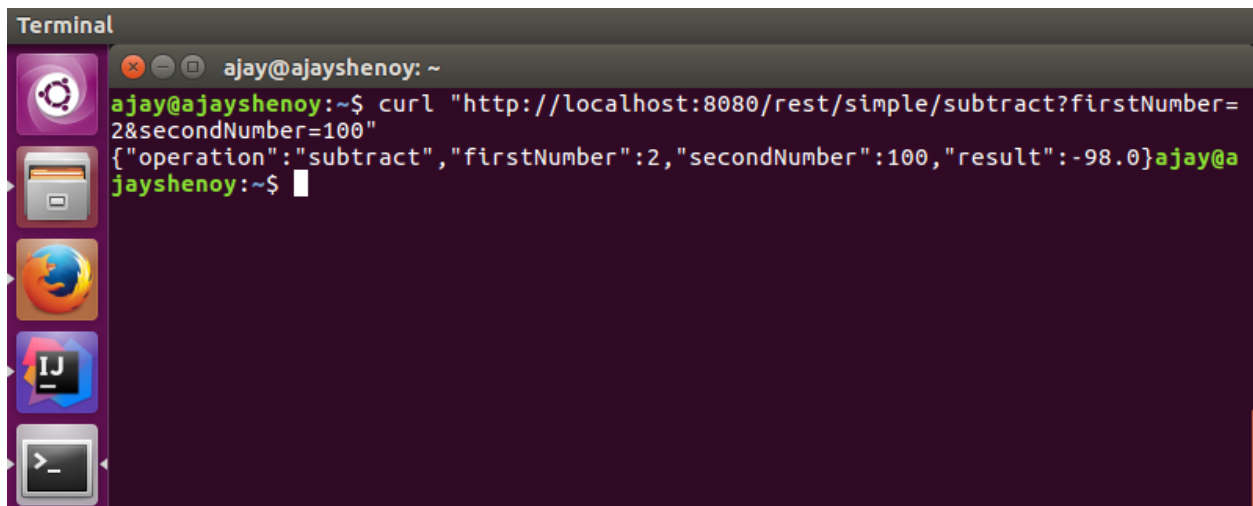


Figure 13 Subtraction Curl Input 1, Step 2

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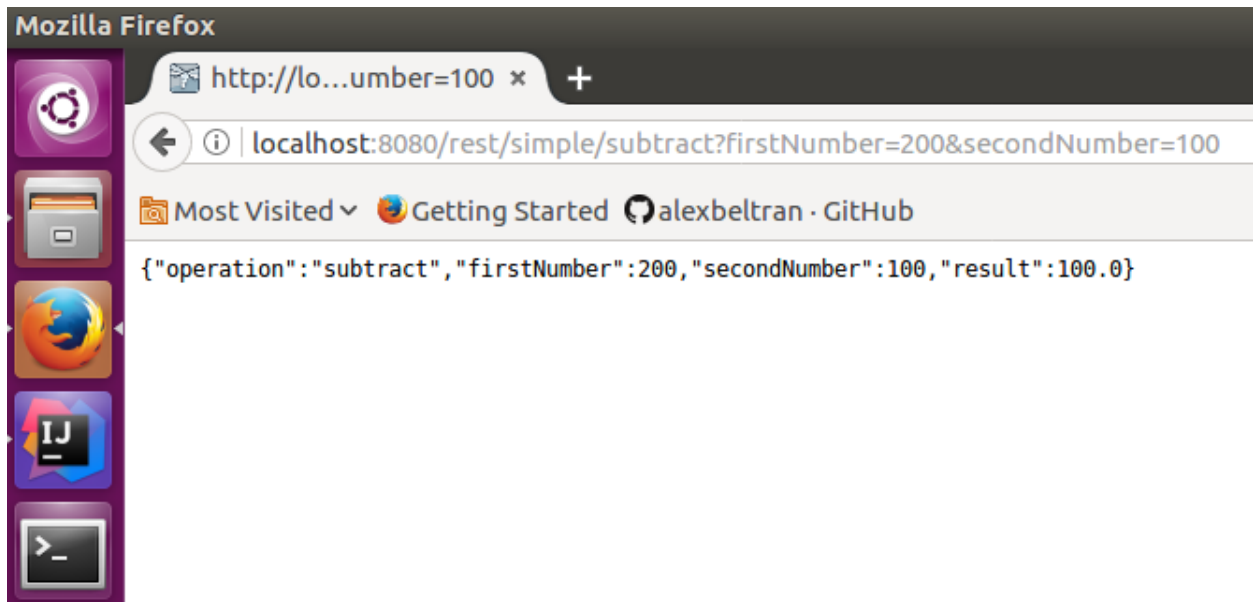


Figure 14 Subtraction Web Input 1, Step 2

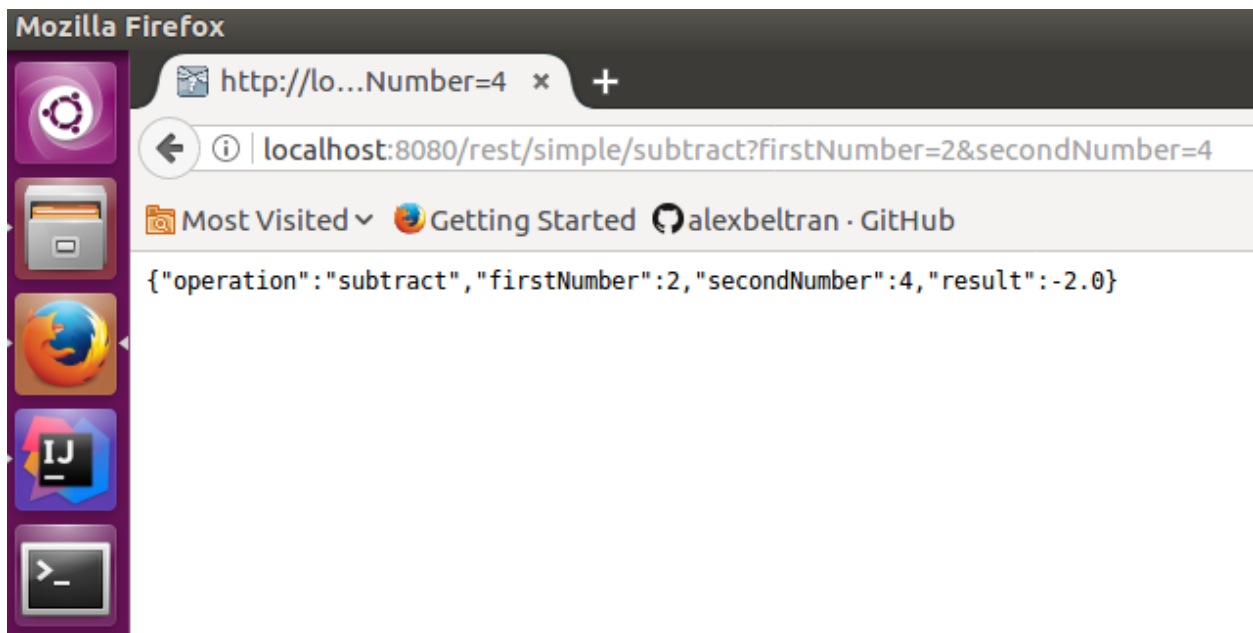


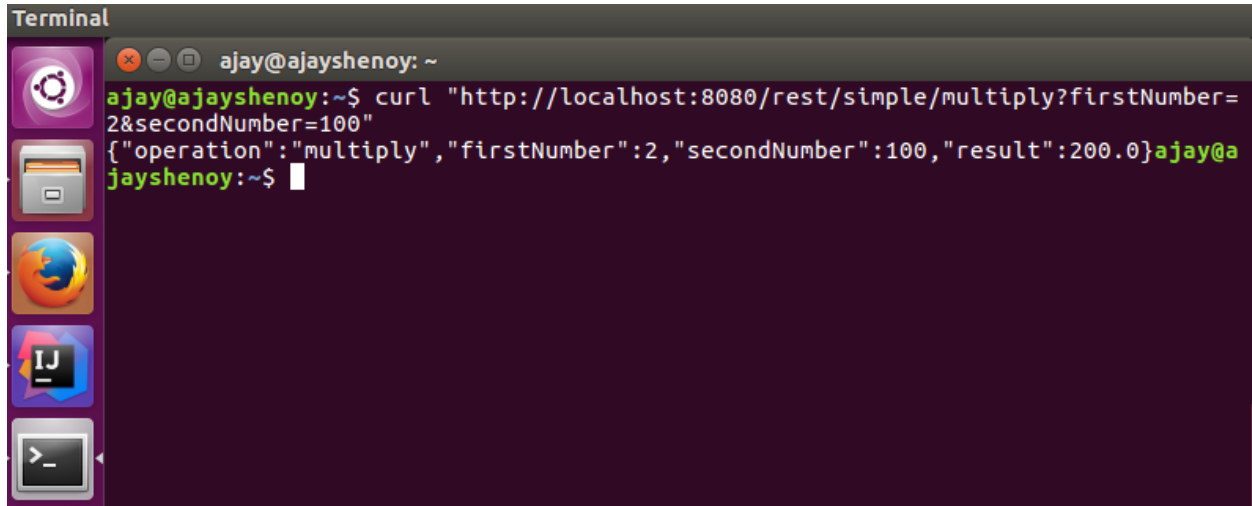
Figure 15 Subtraction Web Input 2, Step 2

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- Multiplication:



```
Terminal
ajay@ajayshenoy: ~
ajay@ajayshenoy:~$ curl "http://localhost:8080/rest/simple/multiply?firstNumber=2&secondNumber=100"
{"operation":"multiply","firstNumber":2,"secondNumber":100,"result":200.0}ajay@ajayshenoy:~$
```

Figure 16 Multiplication Curl Input 1, Step 3

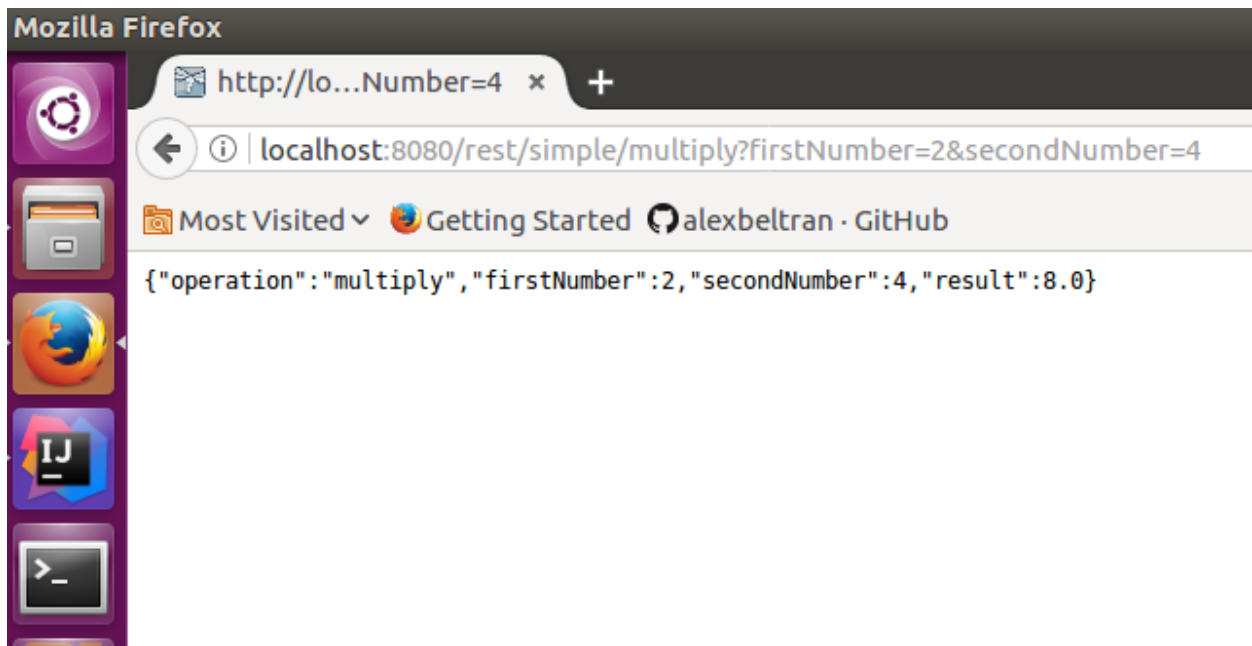


Figure 17 Multiplication Web Input 1, Step 3

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Figure 18 Multiplication Web Input 2, Step 3

- Division:

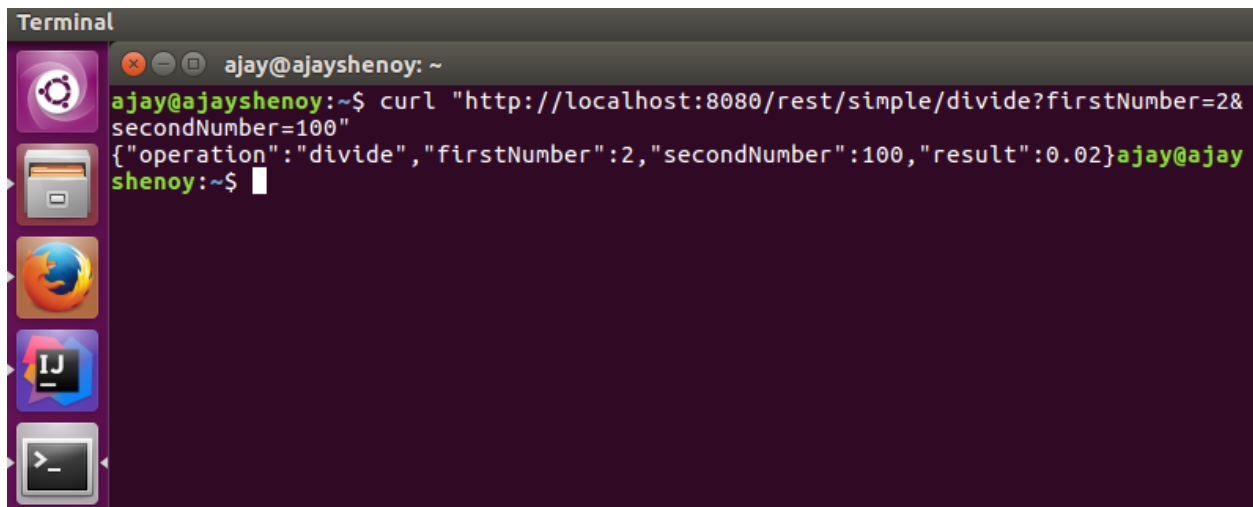


Figure 19 Division Curl Input 1, Step 4

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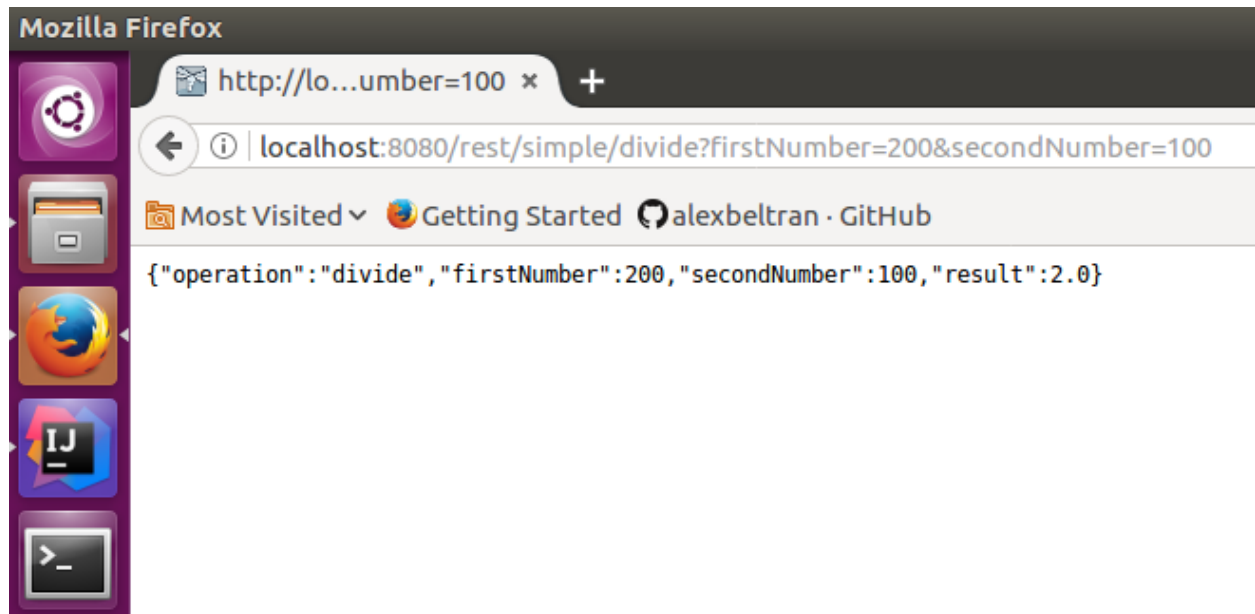


Figure 20 Division Web Input 1, Step 4

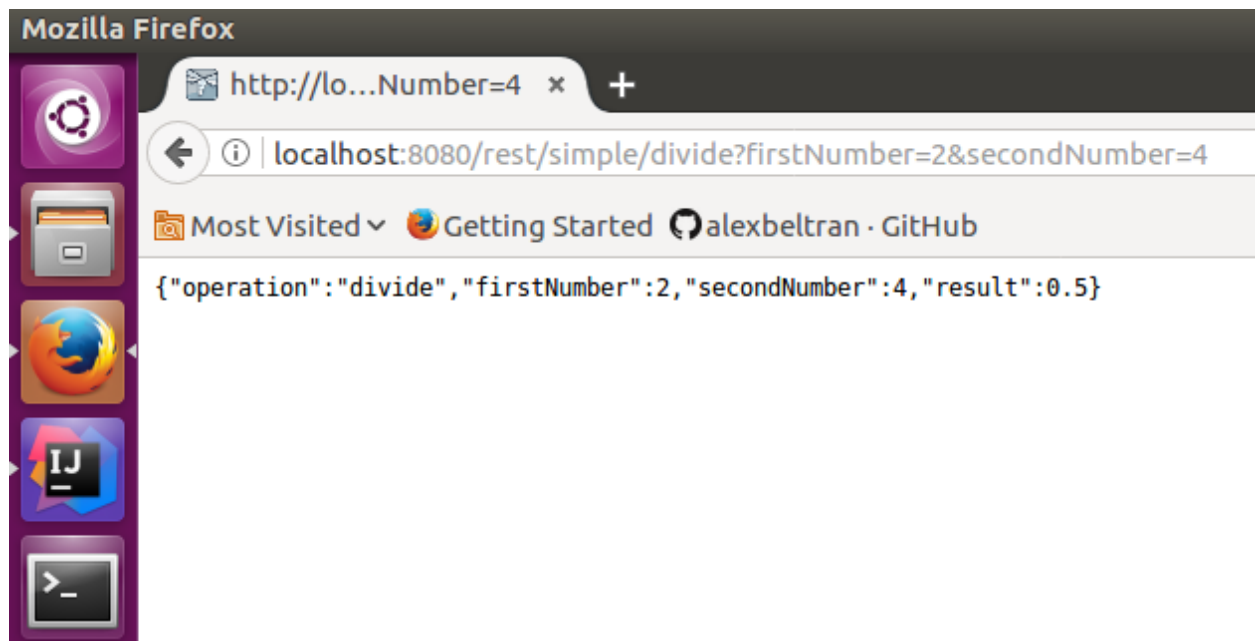


Figure 21 Division Web Input 2, Step 4