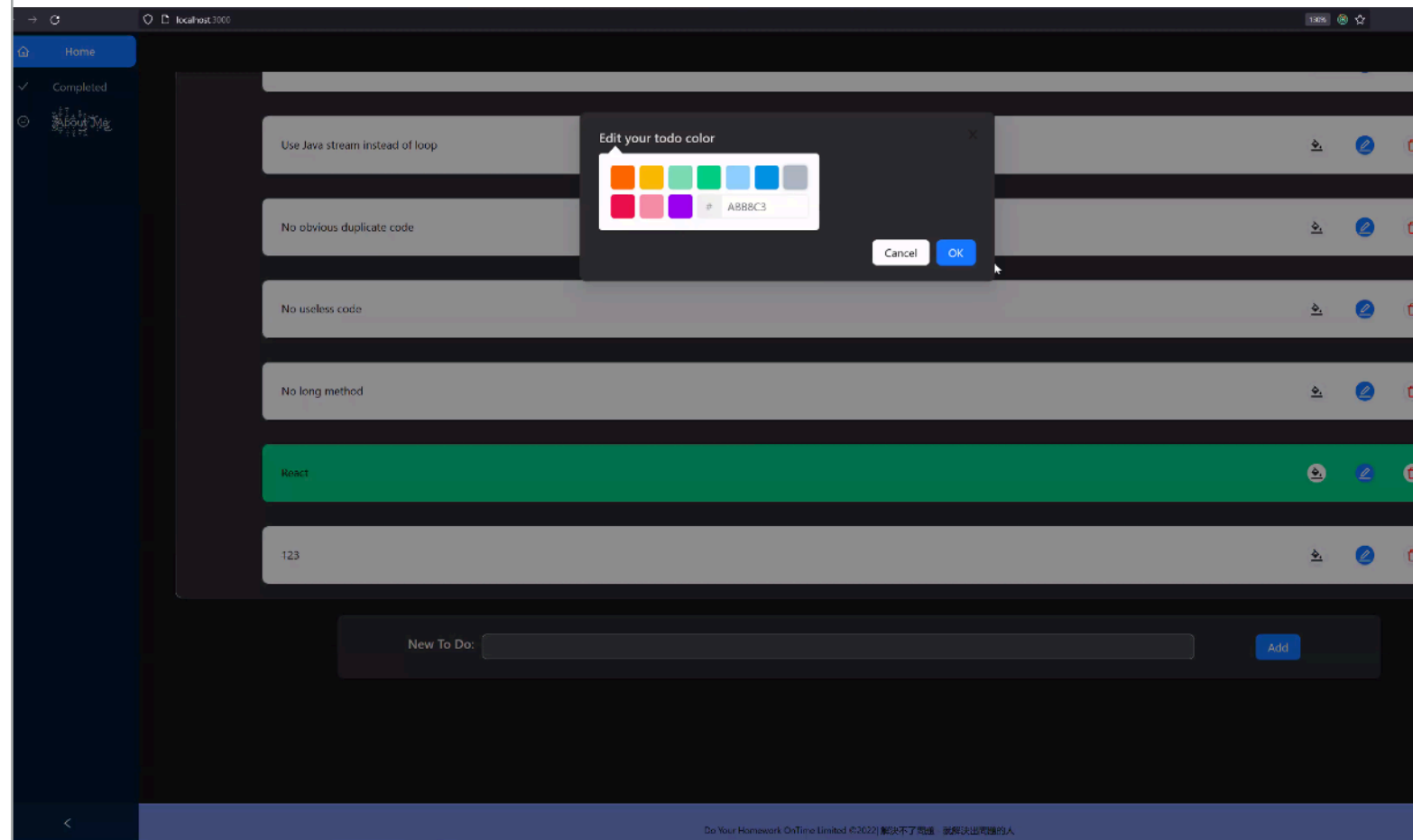


TodoList Beauty Pageant

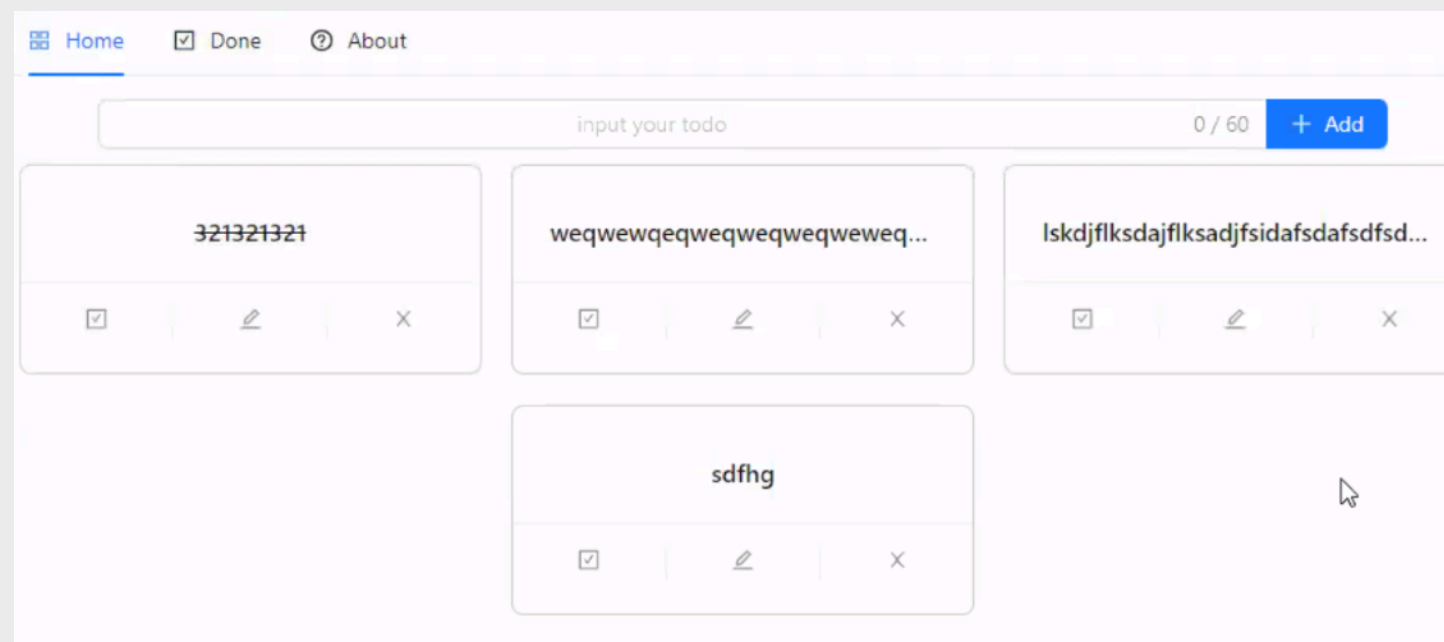


Each person can give **three votes**.

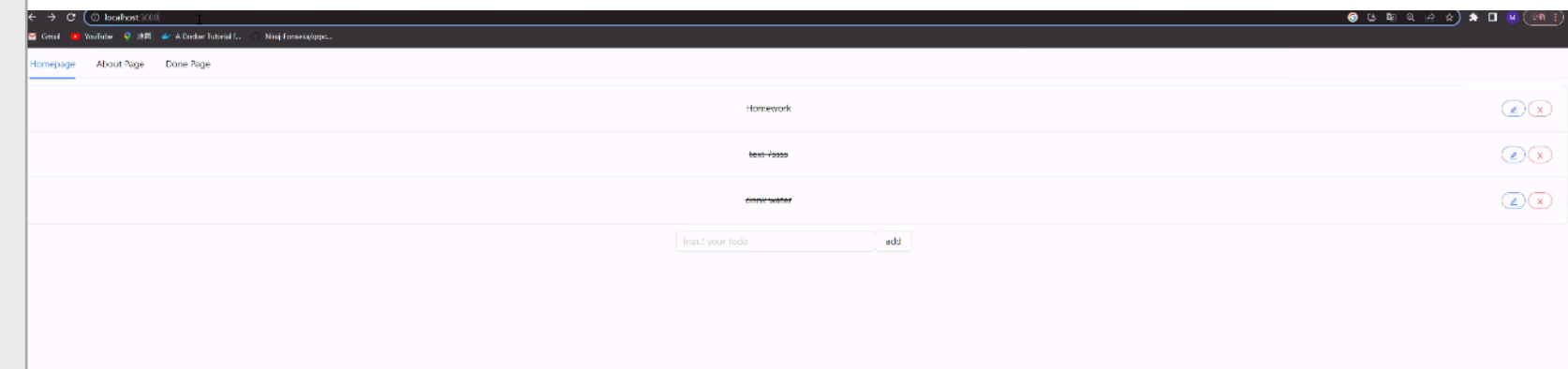
Alvin



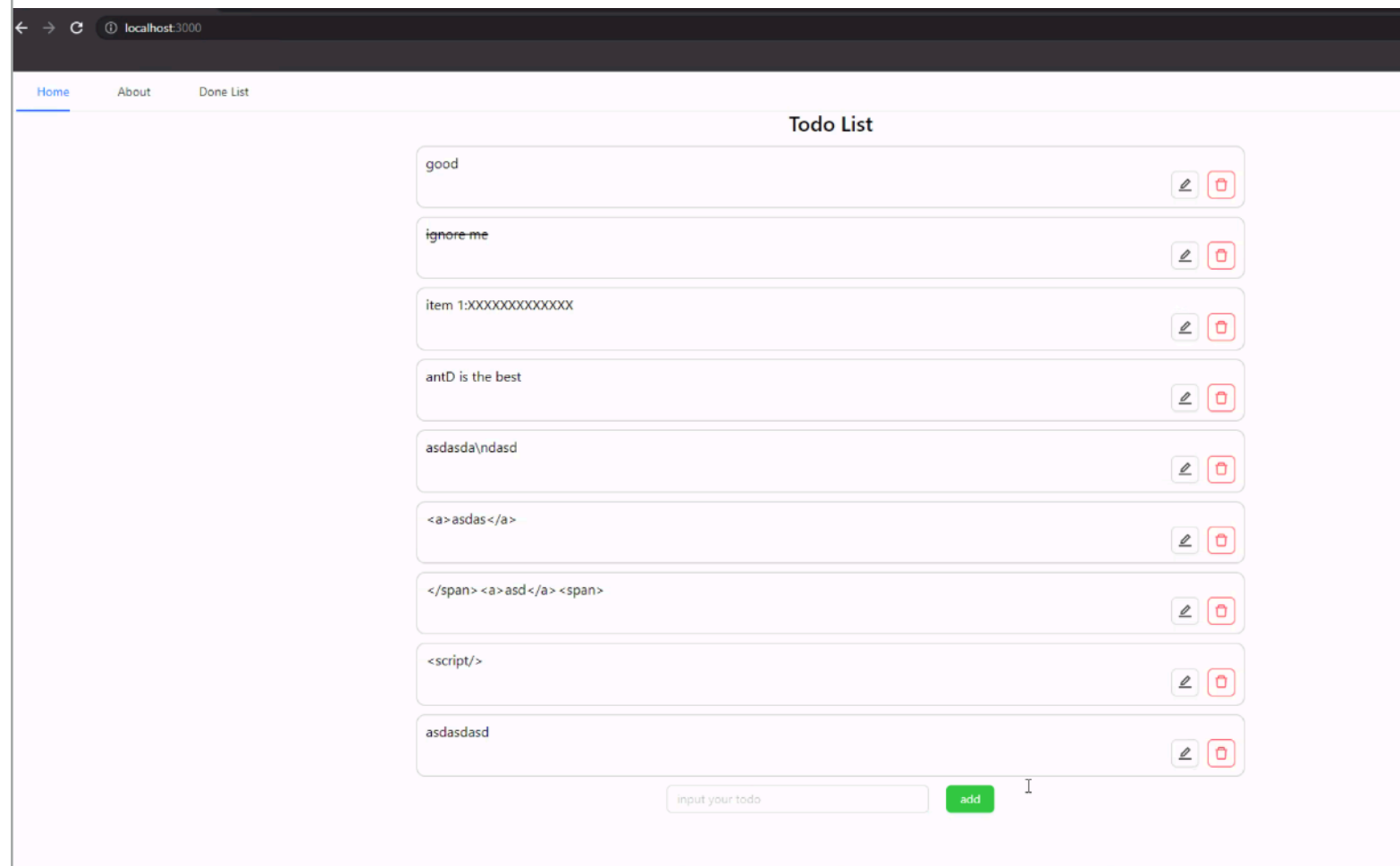
Marie



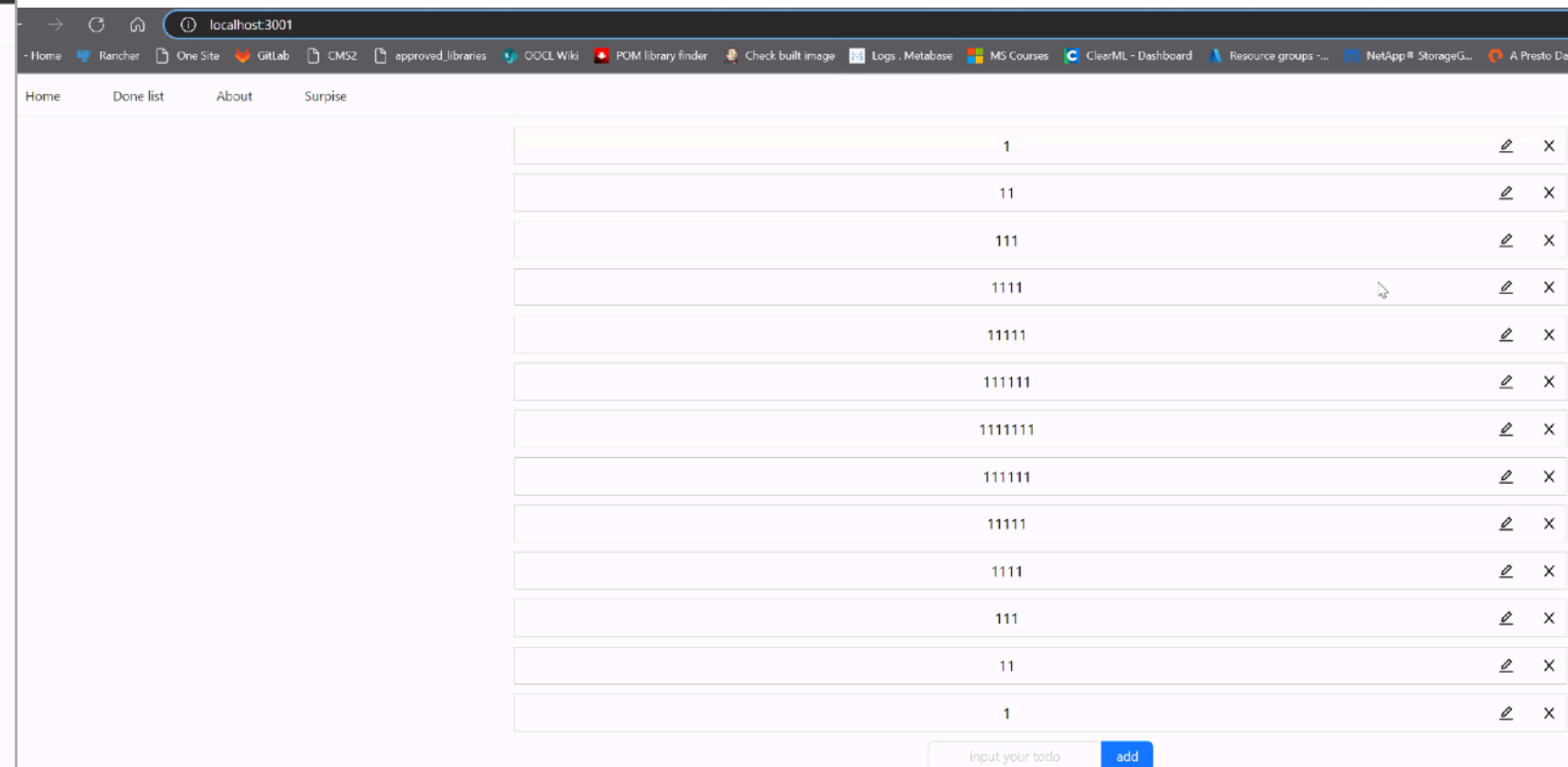
Michael



Polly

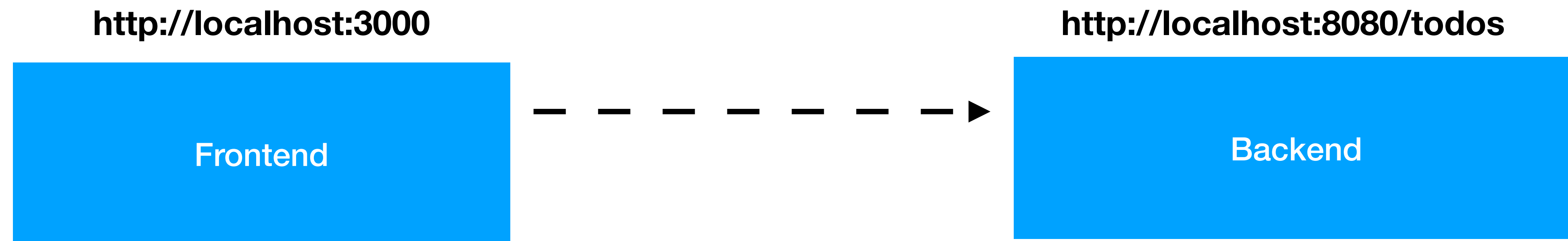


Kelvin



Frontend and Backend Integration





- ⊗ Access to XMLHttpRequest at '<http://localhost:8080/todos>' from origin '<http://localhost:3000>' [localhost/:1](#) has been blocked by CORS policy: No 'Access-Control-Allow-Origin' header is present on the requested resource.
- ⊗ ▶ GET <http://localhost:8080/todos> net::ERR_FAILED [xhr.js:177](#)
- ⊗ ▶ Uncaught (in promise) Error: Network Error [createError.js:16](#)
at [createError \(createError.js:16\)](#)
at XMLHttpRequest.handleError ([xhr.js:84](#))

What is CORS

CORS: Cross-Origin Resource Sharing

<https://developer.mozilla.org/en-US/docs/Web/HTTP/CORS>

What is Origin

Two URLs have the same origin if the **protocol**, **port**, and **domain** are the same for both URLs.

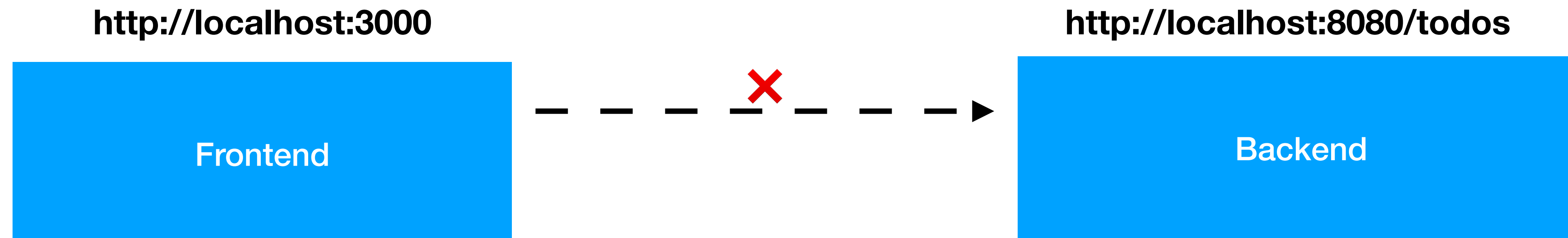
URL 1	URL 2	Same Origin?
https://sample.com	http://sample.com	
https://sample.com	https://sample.com:8080	
https://sample.com	https://sample.com/login	
http://localhost:3000	http://localhost:8080/todos	
https://sample.com	https://www.sample.com	
<u>http://localhost</u>	http://127.0.0.1	

```

✖ Access to XMLHttpRequest at 'http://localhost:8080/todos' from origin 'http://localhost:3000' localhost/:1
  has been blocked by CORS policy: No 'Access-Control-Allow-Origin' header is present on the requested
  resource.

✖ ▶ GET http://localhost:8080/todos net::ERR_FAILED xhr.js:177

✖ ▶ Uncaught (in promise) Error: Network Error createError.js:16
    at createError (createError.js:16)
    at XMLHttpRequest.handleError (xhr.js:84)
  
```

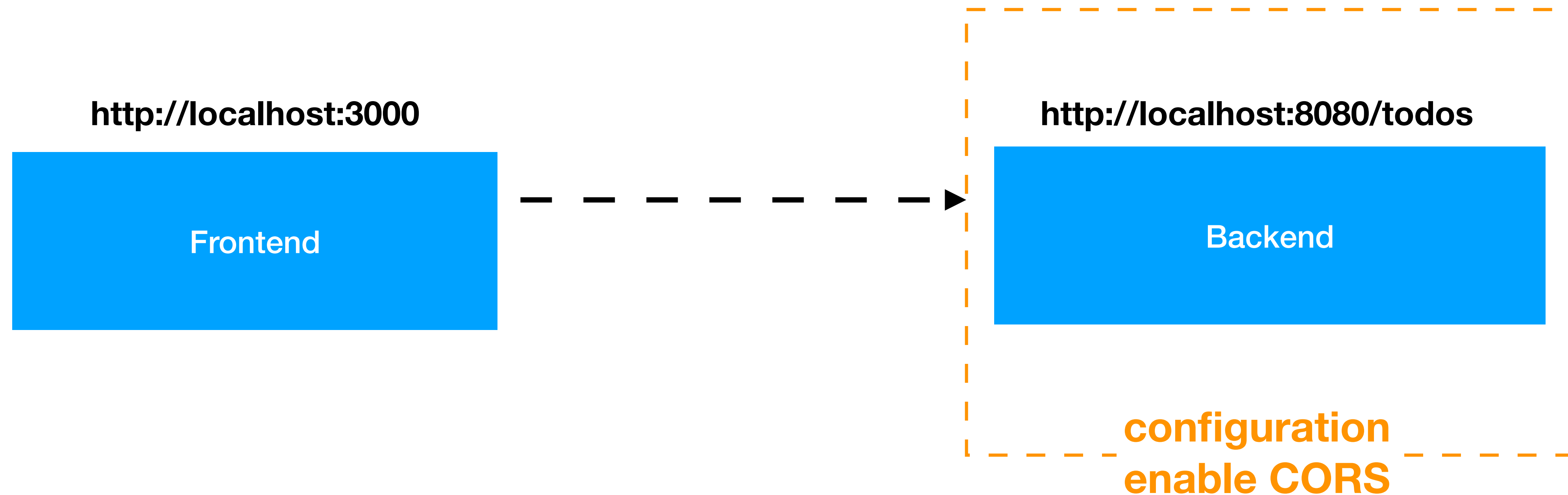



```

✖ Access to XMLHttpRequest at 'http://localhost:8080/todos' from origin 'http://localhost:3000' localhost/:1
  has been blocked by CORS policy: No 'Access-Control-Allow-Origin' header is present on the requested
  resource.

✖ ▶ GET http://localhost:8080/todos net::ERR_FAILED xhr.js:177

✖ ▶ Uncaught (in promise) Error: Network Error createError.js:16
    at createError (createError.js:16)
    at XMLHttpRequest.handleError (xhr.js:84)
  
```



Enable CORS in Spring Boot

1, **@CrossOrigin** on a **@RequestMapping**-Annotated Handler Method

2, **@CrossOrigin** on the Controller

3, Global CORS Configuration using **WebMvcConfigurer**

<https://spring.io/guides/gs/rest-service-cors/#global-cors-configuration>

Implementation on todolist

Requirement:

- Spring boot project
- Using MongoDB
- Three Layers:
 - Controller
 - Service
 - Repository
- API Test (Integration Test)

Feature1: get all todo items

1. finish GET API in backend
2. call GET API in frontend

Feature2: add one todo item

1. finish POST API in backend
2. call POST API in frontend

Feature3: update one todo item

1. finish PUT API in backend
2. call PUT API in frontend

Feature4: delete one todo item

1. finish delete API in backend
2. call delete API in frontend

Frontend Summary

What have we learned about Frontend ?

1. Should at least contain the following concepts: react, react-redux, react-router, axios, antDesign
2. Do it in group.
3. Using concept map

Time box: 40minutes drawing