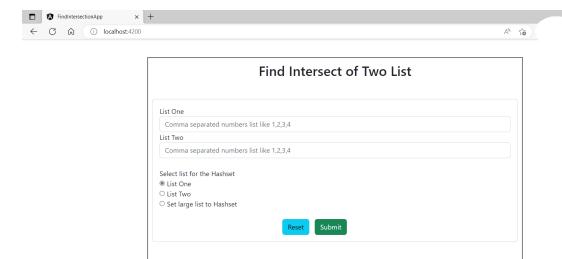# FindIntersectionApp - How to run the project

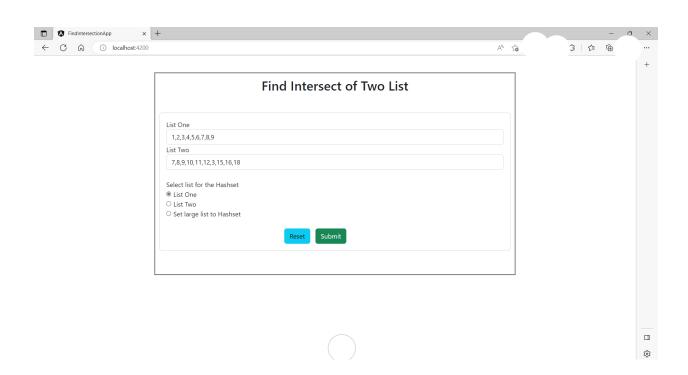This project has two parts. One is the backend of the project that is created with Spring Boot and the fronted part is created with AngularJs. **You must need basic prerequisite software installs to run Java and Angular applications**. As I hope you have done the necessary setup to run Java and Angular js applications, I will go further on how you can run the application.
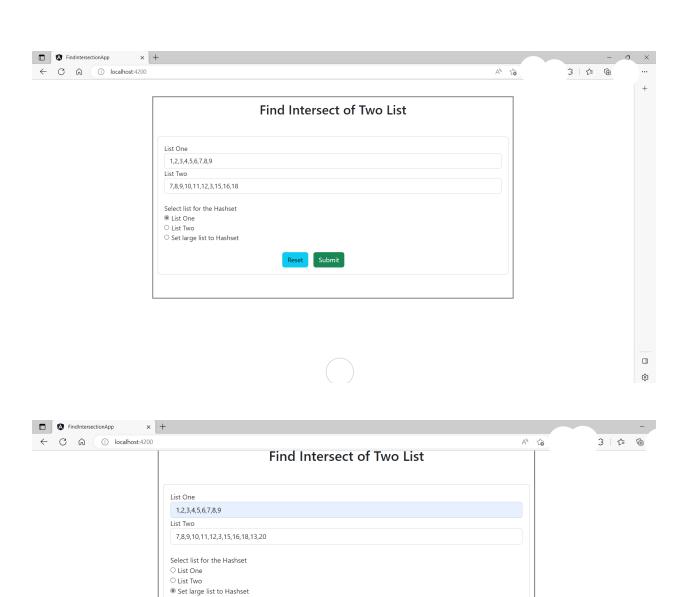
Frontend applications can be found by FindIntersection Frontend.

Backend applications can be found by FindIntersection Backend.

- First starts with backend part
- The Spring Boot project by defaults run on 8080 port
- You can use `mvn clean install` to build the project before you run
- You can run the project by clicking run icon or run on debug mode or using the cmd `mvn spring-boot:run` in the terminal
- The project should start running in 8080 port
- In case the 8080 port is blocked, you can change the port number under resource `application.properties` file `server.port:yourPortNumber`
- Once the backend is running
- Go to the Frontend of the project
- You can use npm install or ng build before you run the project
- Run `ng serve` for a dev server. Navigate to `http://localhost:4200/`.
- Insert two list values in comma separated way example list one `1,2,3,4,5` list two `3,4,5,6,7,8,9`
- The radio button is to decide which list you want to make Hashset or which one to be the iterator
- You the leave the decision on program `Set large list to Hashset` that will take the large set as Hashset
- In case both set is equal in above option, it will take list one as hashset
- Click on the submit button and the result should appear below
- You can use the reset button to reset all the parameters

```
Connected to the target VM, address: '127.0.0.1:56973', transport: 'socket'

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 \\/  ___)| |_)| | | | | || (_| |  ) ) ) )
  '  |____| .__|_| |_|_| |_\__, | / / / /
 =========|_|==============|___/=/_/_/_/
 :: Spring Boot ::                (v3.0.6)

2023-05-11T02:54:07.752+02:00  INFO 6440 --- [           main] c.e.f.FindIntersectApplication           : Starting FindIntersectApplication using Java 17.0.1 with PID 6440 (C:\
2023-05-11T02:54:07.755+02:00  INFO 6440 --- [           main] c.e.f.FindIntersectApplication           : No active profile set, falling back to 1 default profile: "default"
2023-05-11T02:54:08.298+02:00  INFO 6440 --- [           main] o.s.b.w.embedded.tomcat.TomcatWebServer  : Tomcat initialized with port(s): 8080 (http)
2023-05-11T02:54:08.308+02:00  INFO 6440 --- [           main] o.apache.catalina.core.StandardService   : Starting service [Tomcat]
2023-05-11T02:54:08.309+02:00  INFO 6440 --- [           main] o.apache.catalina.core.StandardEngine    : Starting Servlet engine: [Apache Tomcat/10.1.8]
2023-05-11T02:54:08.365+02:00  INFO 6440 --- [           main] o.a.c.c.C.[Tomcat].[localhost].[/]        : Initializing Spring embedded WebApplicationContext
2023-05-11T02:54:08.365+02:00  INFO 6440 --- [           main] w.s.c.ServletWebServerApplicationContext : Root WebApplicationContext: initialization completed in 572 ms
2023-05-11T02:54:08.593+02:00  INFO 6440 --- [           main] o.s.b.w.embedded.tomcat.TomcatWebServer  : Tomcat started on port(s): 8080 (http) with context path ''
2023-05-11T02:54:08.598+02:00  INFO 6440 --- [           main] c.e.f.FindIntersectApplication           : Started FindIntersectApplication in 1.103 seconds (process running for
```

Git   Debug   Endpoints   Profiler   Build   Dependencies   TODO   Problems   Spring   Terminal   Services

FindIntersectApplication: Failed to retrieve application beans snapshot: // :application=* (moments ago)   CRLF   UTF-8   4 spaces   master

Find Intersect of Two List

List One

Comma separated numbers list like 1,2,3,4

List Two

Comma separated numbers list like 1,2,3,4

Select list for the Hashset
- List One
- List Two
- Set large list to Hashset

Reset   Submit

Find Intersect of Two List

List One

1,2,3,4,5,6,7,8,9

List Two

7,8,9,10,11,12,3,15,16,18

Select list for the Hashset
- List One
- List Two
- Set large list to Hashset

Reset   Submit

Find Intersect of Two List

List One

1,2,3,4,5,6,7,8,9

List Two

7,8,9,10,11,12,3,15,16,18

Select list for the Hashset
○ List One
○ List Two
○ Set large list to Hashset

Reset Submit

Find Intersect of Two List

List One

1,2,3,4,5,6,7,8,9

List Two

7,8,9,10,11,12,3,15,16,18,13,20

Select list for the Hashset
○ List One
○ List Two
◉ Set large list to Hashset

Reset Submit

Result

List after Intersection
[
    3,
    7,
    8,
    9
]

Time In Millisec
0