

Data Tier

- I used the PostgreSQL database for persistence.
- Usually, the database runs on port number 5432 but if it is different on your machine then it can be changed in the application.properties file in the BackEnd folder of the application.
- In the PostgreSQL shell, a database with the name “dependencies” would need to be created first and a user with the user name “db_user” and password “password” would need to be created.
- If you create a database, user name, and password with different names then it would need to be specified in the application.properties file in the BackEnd folder of the application accordingly.
- Command to create the database in PostgreSQL 14
CREATE DATABASE dependencies
- Command to create the user in PostgreSQL 14
create user db_user with encrypted password 'password';

Service Tier

- Once the data tier is successfully created and listening on a port then only the Application Tier will startup.
- From the command prompt go to the root directory of the folder “BackEnd” and execute the following command to build the executable jar:
mvn clean install
- Once the command prompt says Build Successful that means the jar has been created and then from the command prompt navigate to the “target” folder.
- Inside the target folder from the command prompt execute the following command to start the application tier:
java -jar repositoryManager-0.0.1-SNAPSHOT.jar
- If it says “Tomcat server started on port:8080”, the port number can be different also then which means the service tier has started and now the service tier and data tier are successfully connected.

Presentation Tier

- I used Angular for the Front End part of the application.
- Node package manager (npm) needs to be installed.
- From the command prompt go to the root directory of the folder “FrontEnd” and execute the following command to install the required dependencies:
npm install
- After that to launch the application on the web browser the following command needs to be executed:
ng serve --open

- Once the application starts there would be some dependencies already there which can be downloaded from the front end. Only the dependency that has been added by the test cases sometimes gives errors while downloading.
- Alternatively, information on a dependency can be added and a file can be uploaded.
- If the artifact id and group id are already present in the database then only the version of the file would be updated.

Maven and NPM versions on my laptop



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Command Prompt
Microsoft Windows [Version 10.0.22000.675]
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C:\Users\sidha>mvn -v
Apache Maven 3.8.5 (3599d3414f046de2324203b78ddcf9b5e4388aa0)
Maven home: C:\ProgramData\chocolatey\lib\maven\apache-maven-3.8.5
Java version: 17.0.1, vendor: Oracle Corporation, runtime: C:\Program Files\Java\jdk-17.0.1
Default locale: en_US, platform encoding: Cp1252
OS name: "windows 10", version: "10.0", arch: "amd64", family: "windows"

C:\Users\sidha>npm -v
8.5.2

C:\Users\sidha>
```