Cognizant Customer Experience Assurance Viewer

Technical Setup Guide

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General System Setup

For all machines,
Go to hosts file and add.
127.0.0.1 (machine Ip)
E.g.: -127.0.0.1 ec2-52-53-186-224.us-west-1.compute.amazonaws.com
Hosts file location: C://windows/System32/drivers/etc/

MODULE 1 – CXA Auth-Api

SOFTWARES REQUIRED

SOFTWARE	VERSION	DOWNLOAD LINK
Java	11	Java Archive Downloads - Java SE 11 | Oracle India
IntelliJ Idea	Latest	Download IntelliJ IDEA – The Leading Java and Kotlin IDE (jetbrains.com)
Gradle	6.8.3	Gradle | Thank you for downloading Gradle!
Mango DB	4.2.23	Download MongoDB Community Server | MongoDB
Robo 3t	1.4	Robo 3T | Free, open-source MongoDB GUI (formerly Robomongo)
NSSM	2.24	NSSM - the Non-Sucking Service Manager

PORTS

Ports to be opened:

- Port **80 -** Node
- Port **27017 -** Mongo DB
- Port **4200 –** Auth-Api

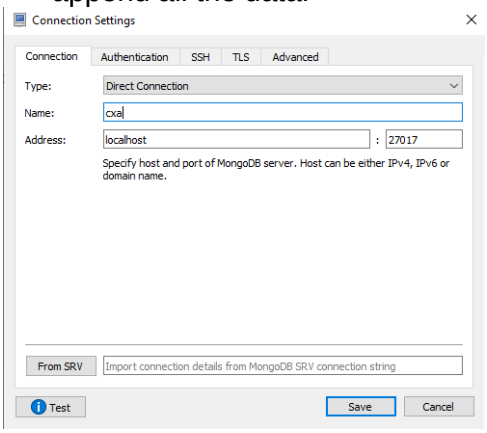
SOFTWARE INSTALLATION & SETUP

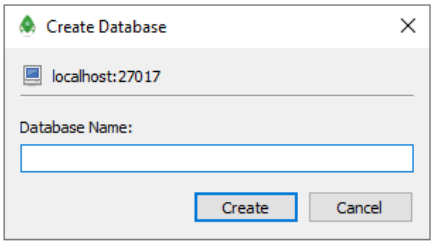
JAVA(JDK) Installation:

1. Download the java 11 Java Development Kit (JDK) from the provided link suitable for your machine.
2. Setup the environmental variables as JAVA_HOME and configure the file location in PATH also. Check and set how to set up environmental variables for your OS may require administrative rights.
3. Once above steps are completed you can check whether java installation is successful or not by running java -version from command prompt it will show the installed version.

DATABASE Setup and Configuration:

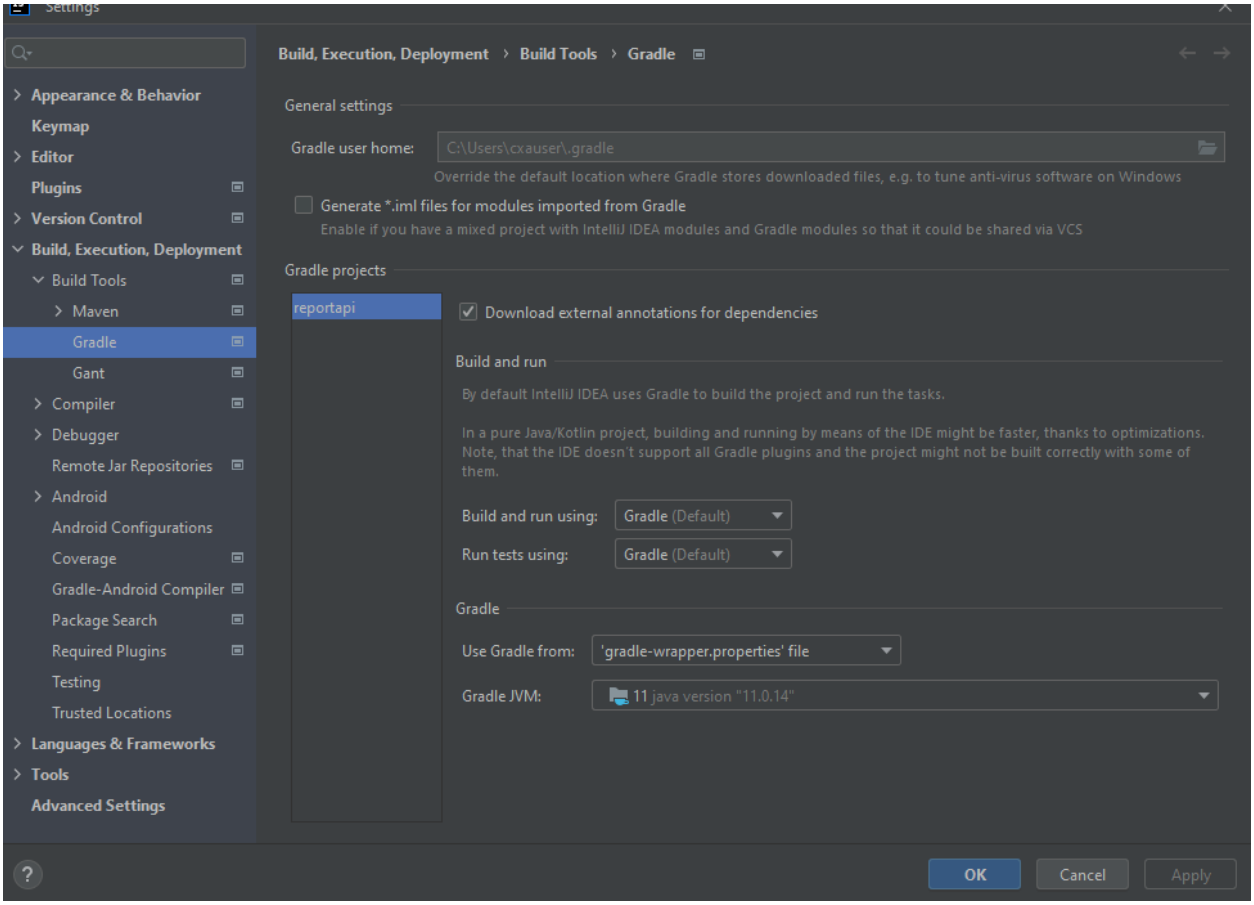
- Install Mongo Db from software list.
- If you use default, it will be no access.
- Check with Command Prompt whether MongoDb Server is installed.
- Open Robo 3T to check the connection (the below steps need to be followed)
- After That click on the cxa and create a database cxa.
- Open command prompt run mango cxa.js from the location of the cxa.js file which append all the data.



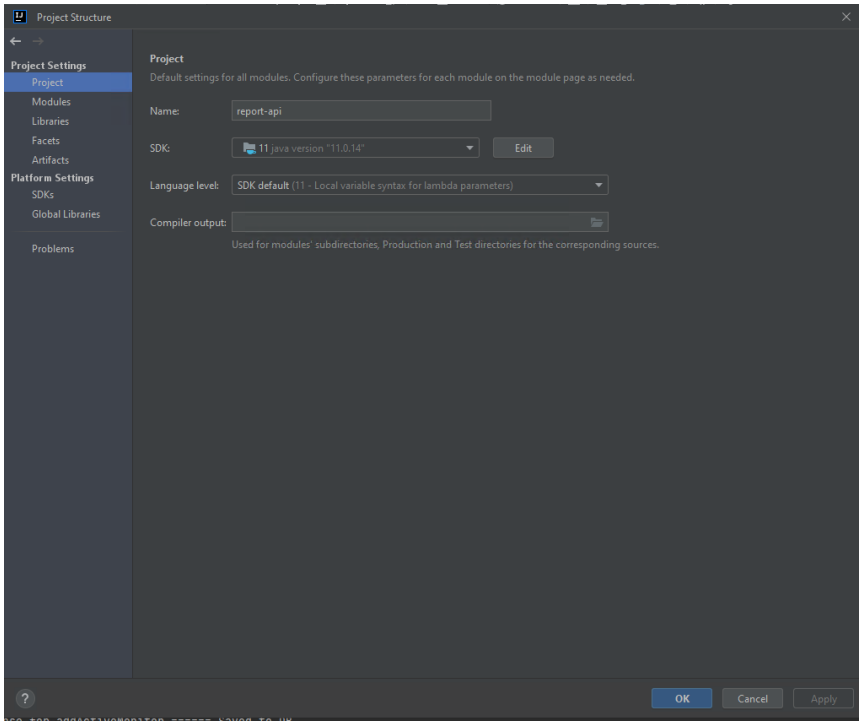


IntelliJ Auth-Api Setup and Configuration:

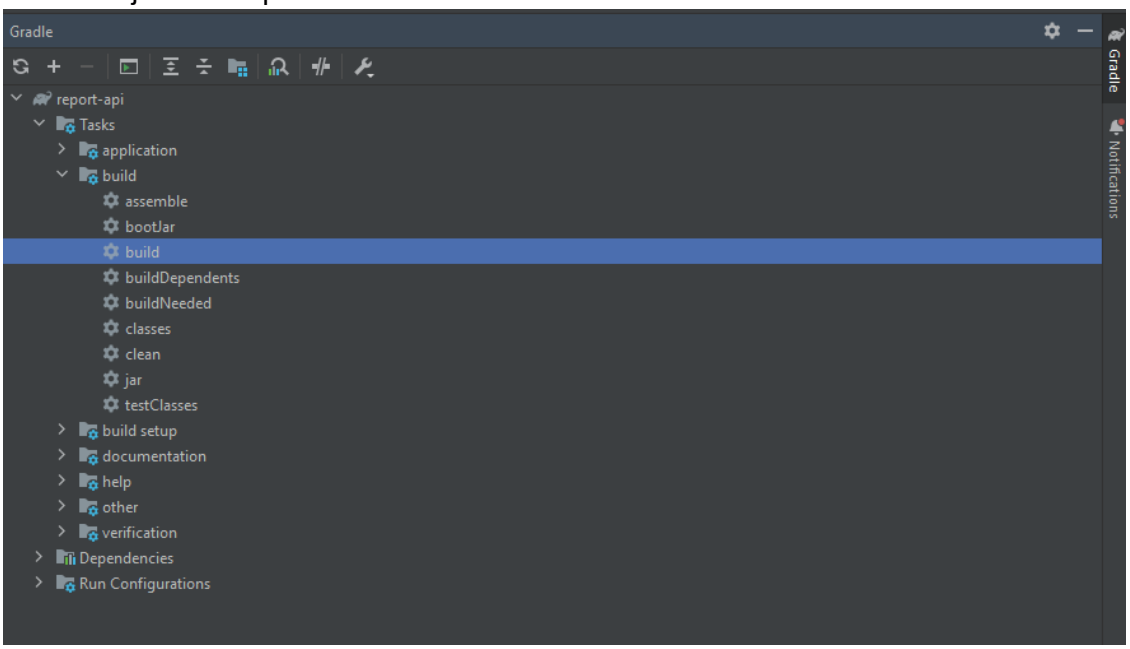
- Download and setup IntelliJ.
- Once its completed open IntelliJ open the project inside IntelliJ config File-> settings ->Gradle set the Gradle wrapper present in the code.



- Set the JDK in file -> Project structure.

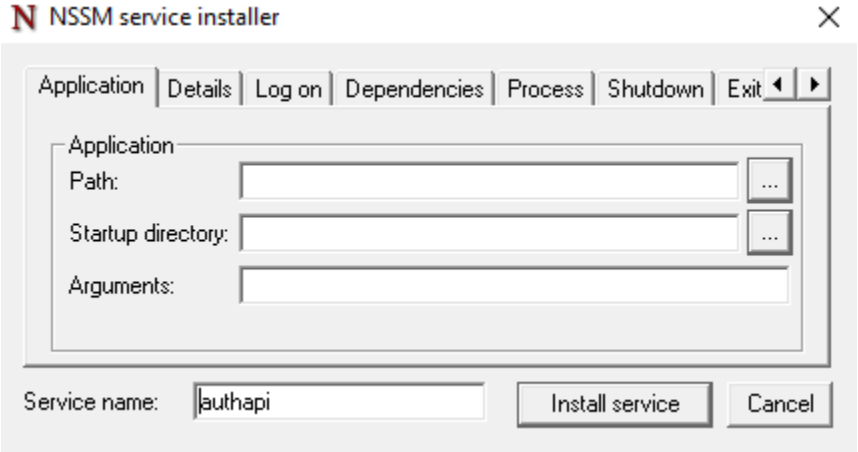


- Then Run Gradle build it will create a build folder.
- The build jar will be present inside build/libs.



NSSM Auth-Api Setup and Configuration:

1. Download and install NSSM software it will be present in program files.
2. Create a folder for cxa-dahboard and copy the build from the generated jar
3. Open command prompt cd C:\Program Files\nssm-2.24\
4. Run nssm install authapi in command prompt.



5. The path will be Java path (e.g., C:\Program Files\Java\jdk-11.0.14\bin\java.exe)
6. Startup directory will be fold of the jar present. (e.g., C:\CXA-Viewer)
7. Arguments:
   -jar auth-api-1.0.0.jar --spring.data.mongodb.uri=mongodb://localhost:27017/cxa

Properties File Configuration:

```
app.jwt.token.secret.key = CxaDashboardSecretKey
app.jwt.token.expiration.milliSec = 86400000
app.jwt.token.issuer.name = CxaDashboard
spring.main.allow-circular-references=true
app.permission.admin=cxa.permission.admin
brcyptEncoderParameter = 12
spring.data.mongodb.uri=mongodb://localhost:27017/cxa
```

- The app.jwt.token.secret.key is the token secret encryption key which can we used as the JWT signature key.
- The app.jwt.token.expiratrion.millisec will be time duration of the expiration of the token.
- The app.permission.admin will be admin user permissions will exclude all method checks.

MODULE 2 – CXA Workbench-Api

SOFTWARES REQUIRED

SOFTWARE	VERSION	DOWNLOAD LINK
Java	11	Java Archive Downloads - Java SE 11 | Oracle India
IntelliJ Idea	Latest	Download IntelliJ IDEA – The Leading Java and Kotlin IDE (jetbrains.com)
Gradle	6.8.3	Gradle | Thank you for downloading Gradle!
Mango DB	4.2.23	Download MongoDB Community Server | MongoDB
Robo 3t	1.4	Robo 3T | Free, open-source MongoDB GUI (formerly Robomongo)

NSSM	2.24	NSSM - the Non-Sucking Service Manager

PORTS

Ports to be opened:

- Port **80 -** Node
- Port **27017 -** Mongo DB
- Port **2029 –** Workbench-Api

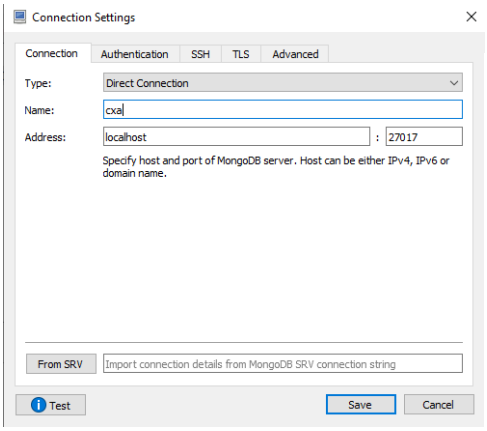
SOFTWARE INSTALLATION & SETUP

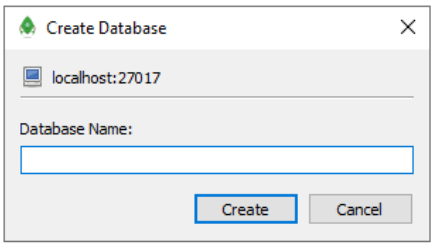
JAVA(JDK) Installation:

1. If you already configured it proceed to next step.
2. Download the java 11 Java Development Kit (JDK) from the provided link suitable for your machine.
3. Setup the environmental variables as JAVA_HOME and configure the file location in PATH also. Check and set how to set up environmental variables for your OS may require administrative rights.
4. Once above steps are completed you can check whether java installation is successful or not by running java -version from command prompt it will show the installed version.

DATABASE Setup and Configuration:

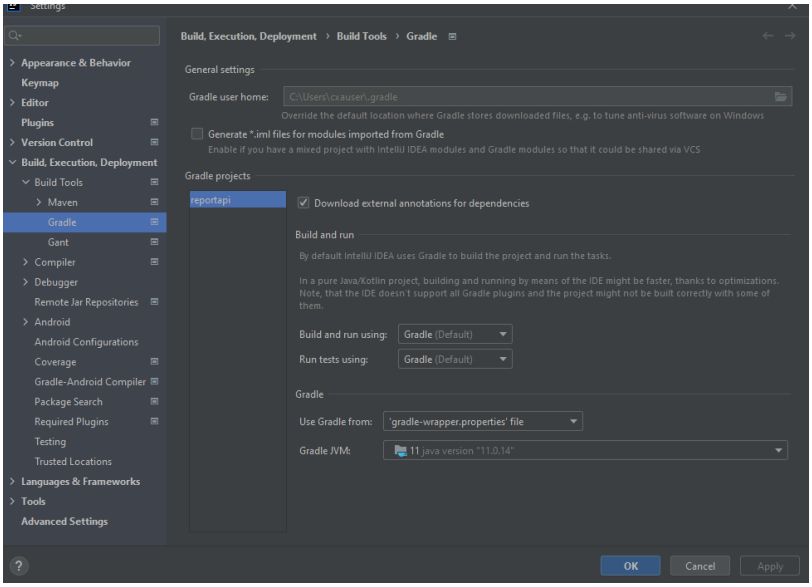
- If you already configured proceed to next step.
- Install Mongo Db from software list.
- If you use default, it will be no access.
- Check with Command Prompt whether MongoDb Server is installed.
- Open Robo 3T to check the connection (the below steps need to be followed)
- After That click on the cxa and create a database cxa.



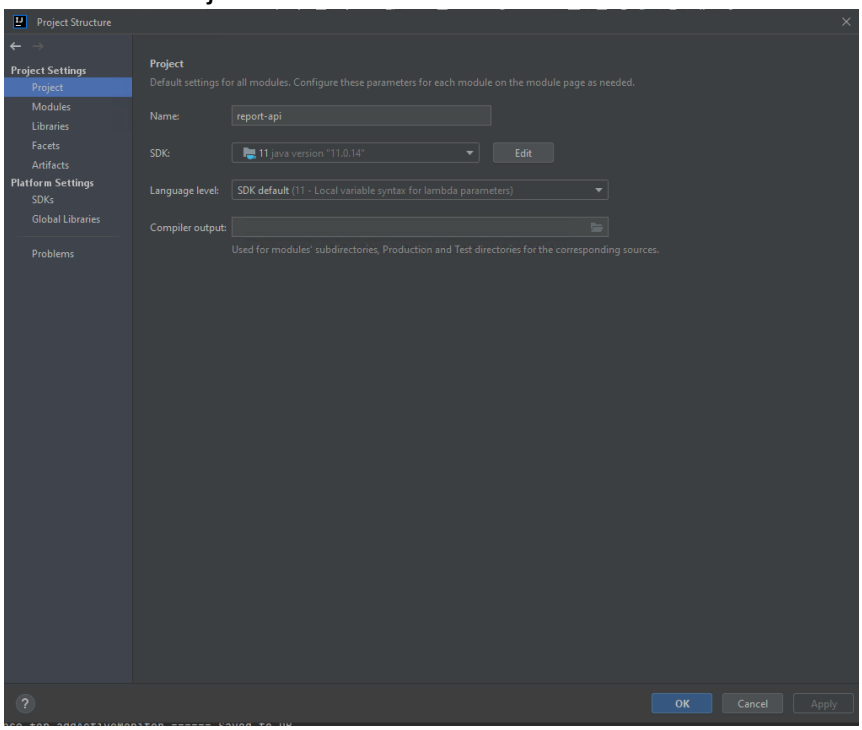


IntelliJ Workbench-Api Setup and Configuration:

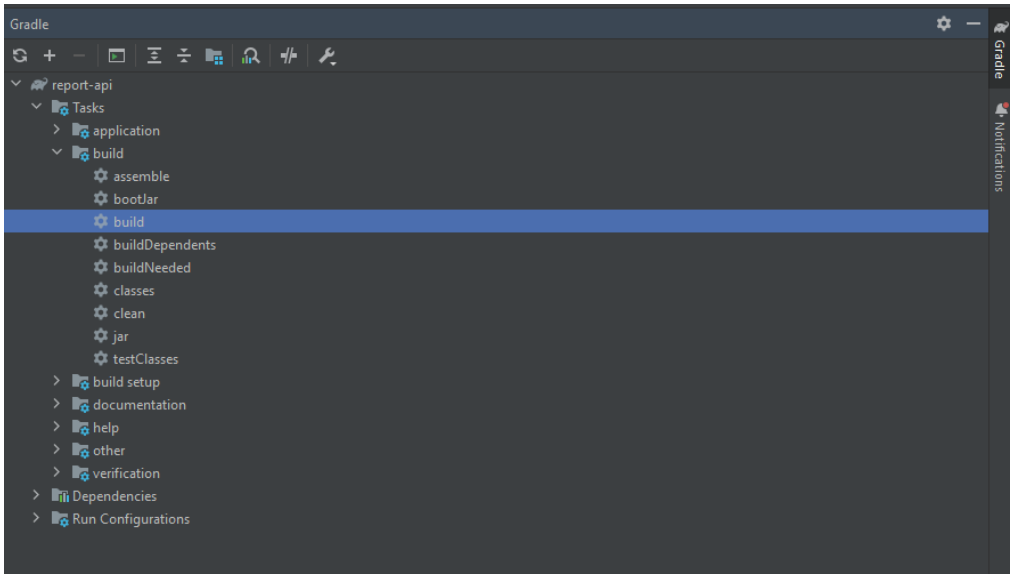
- Download and setup IntelliJ.
- Once its completed open IntelliJ open the project inside IntelliJ config File-> settings ->Gradle set the Gradle wrapper present in the code.



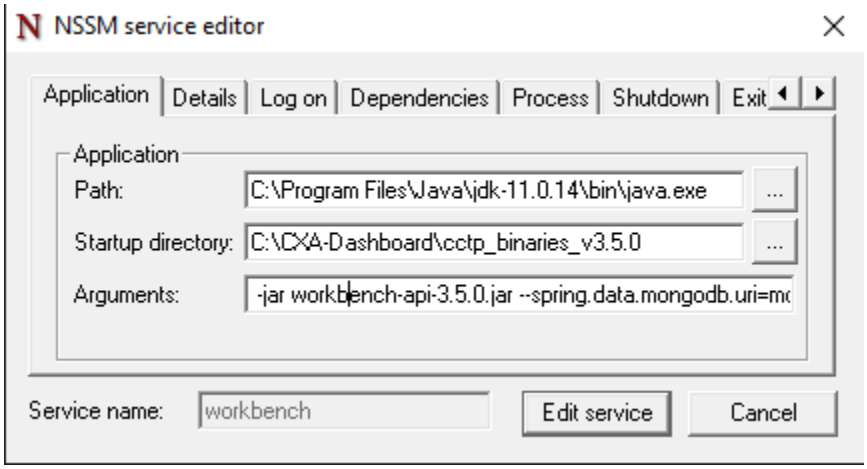
- Set the JDK in file -> Project structure.



- Then Run Gradle build it will create a build folder.
- The build jar will be present inside build/libs.

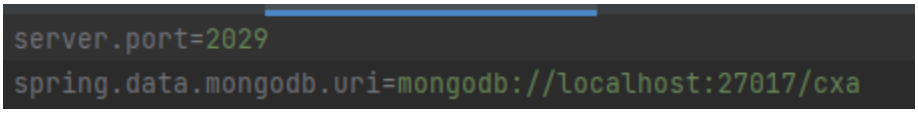


NSSM Workbench-Api Setup and Configuration:

1. Download and install NSSM software it will be present in program files.
2. Create a folder for CXA-Viewer and copy the build from the generated jar.
3. Open command prompt cd C:\Program Files\nssm-2.24\
4. Run nssm install workbench in command prompt.
   a. 

5. The path will be Java path (e.g., C:\Program Files\Java\jdk-11.0.14\bin\java.exe)
6. Startup directory will be fold of the jar present. (e.g., C:\CXA-Viewer)
7. Arguments:
   a. -jar workbench-api-1.0.0.jar --spring.data.mongodb.uri=mongodb://localhost:27017/cxa

Properties File Configuration:



- server.port the port for running in service.
- spring.data.mongodb.uri is database connection.

MODULE 3 – CXA Report-Api

SOFTWARES REQUIRED

SOFTWARE	VERSION	DOWNLOAD LINK
Java	11	Java Archive Downloads - Java SE 11 | Oracle India
IntelliJ Idea	Latest	Download IntelliJ IDEA – The Leading Java and Kotlin IDE (jetbrains.com)
Gradle	6.8.3	Gradle | Thank you for downloading Gradle!
Mango DB	4.2.23	Download MongoDB Community Server | MongoDB
Robo 3t	1.4	Robo 3T | Free, open-source MongoDB GUI (formerly Robomongo)
NSSM	2.24	NSSM - the Non-Sucking Service Manager
Google Chrome	114	https://www.google.com/chrome/?brand=YTUH&gclid=EAIaIQobChMIj4bqtcmYgAMV8pJmAh1rTQMvEAAYASAAEgIxEvD_BwE&gclsrc=aw.ds
Edge	114	https://www.microsoft.com/en-us/edge/download?form=MA13FJ
Firefox	114	https://www.mozilla.org/en-US/firefox/new/

PORTS

Ports to be opened:

- Port **80 -** Node
- Port **27017 -** Mongo DB
- Port **2025 –** Report-Api

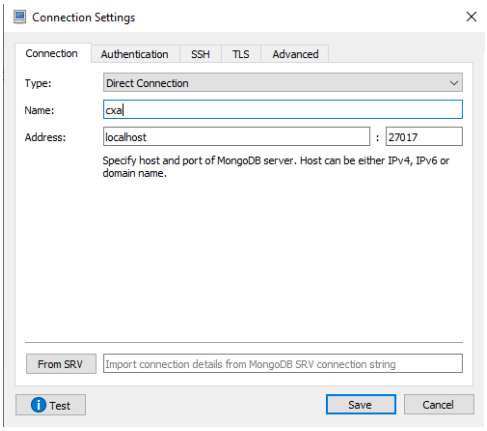
SOFTWARE INSTALLATION & SETUP

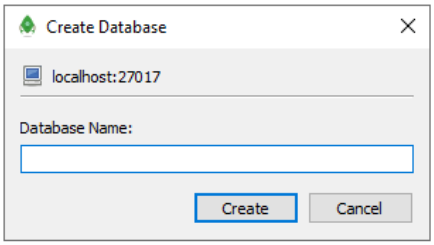
JAVA(JDK) Installation:

5. If you already configured it proceed to next step.
6. Download the java 11 Java Development Kit (JDK) from the provided link suitable for your machine.
7. Setup the environmental variables as JAVA_HOME and configure the file location in PATH also. Check and set how to set up environmental variables for your OS may require administrative rights.
8. Once above steps are completed you can check whether java installation is successful or not by running java -version from command prompt it will show the installed version.

DATABASE Setup and Configuration:

- If you already configured proceed to next step.
- Install Mongo Db from software list.
- If you use default, it will be no access.
- Check with Command Prompt whether MongoDb Server is installed.
- Open Robo 3T to check the connection (the below steps need to be followed)
- After That click on the cxa and create a database cxa.

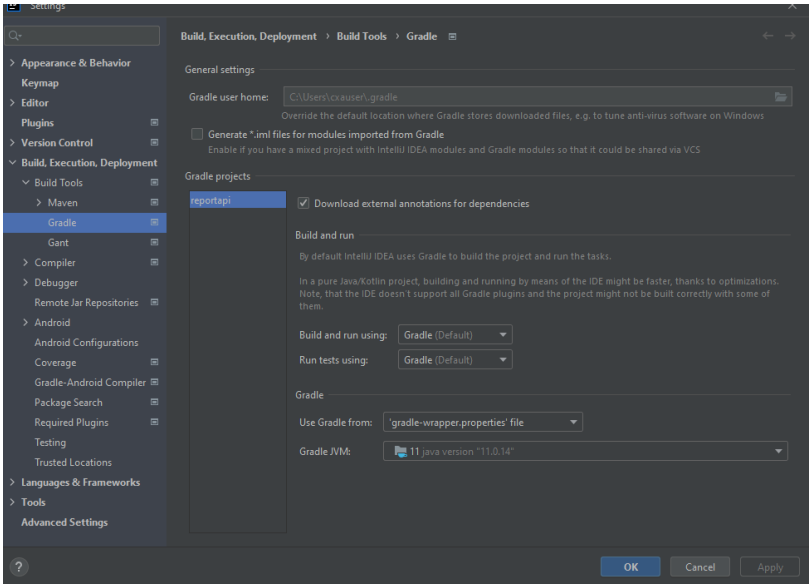




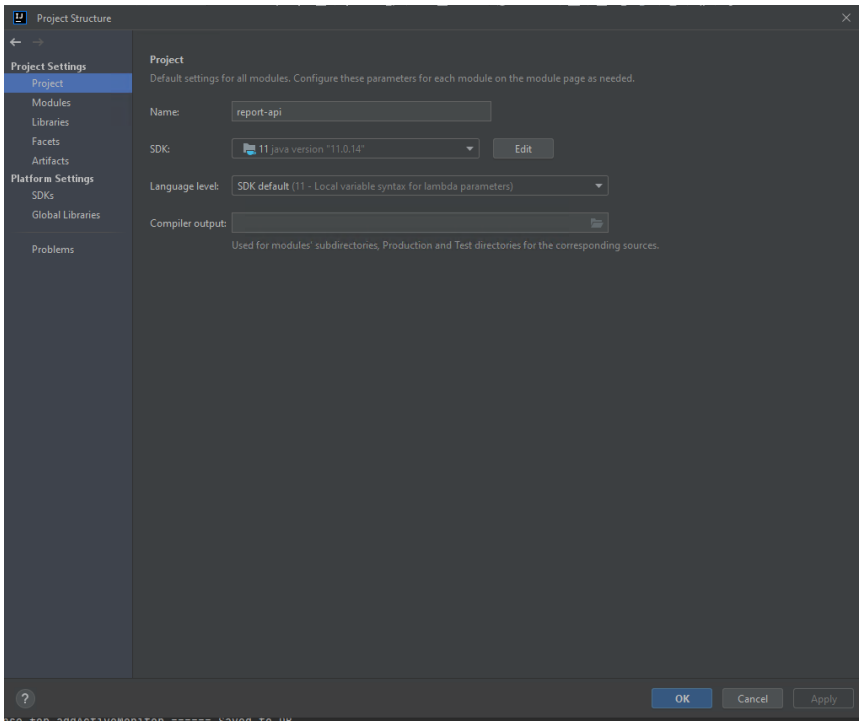
IntelliJ Workbench-Api Setup and Configuration:

- Download and setup IntelliJ.

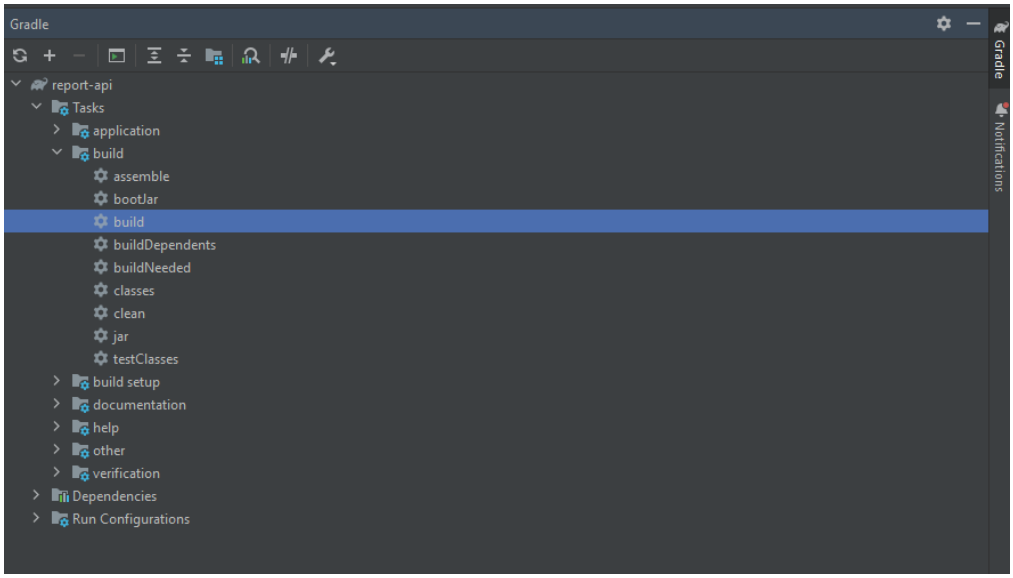
- Once its completed open IntelliJ open the project inside IntelliJ config File-> settings ->Gradle set the Gradle wrapper present in the code.



- Set the JDK in file -> Project structure.

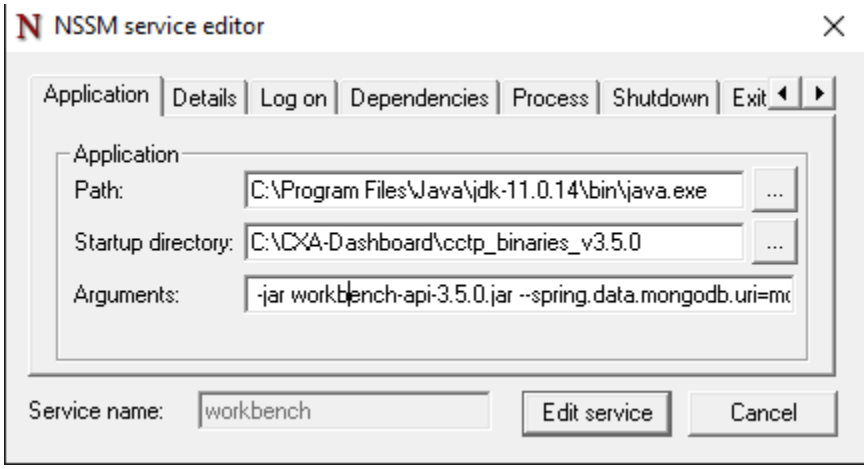


- Then Run Gradle build it will create a build folder.
- The build jar will be present inside build/libs.



NSSM Report-Api Setup and Configuration:

8. Download and install NSSM software it will be present in program files.
9. Create a folder for CXA-Viewer and copy the build from the generated jar.
10. Open command prompt cd C:\Program Files\nssm-2.24\
11. Run nssm install workbench in command prompt.



12. The path will be Java path (e.g., C:\Program Files\Java\jdk-11.0.14\bin\java.exe)
13. Startup directory will be fold of the jar present. (e.g., C:\CXA-Viewer)
14. Arguments:
    -jar report-api-1.0.0.jar

Properties File Configuration:

- Run Gradle build it will create a build folder.
- The build jar will be present inside build/libs.
- Run `-jar report-api-1.0.0.jar --spring.data.mongodb.uri=mongodb://localhost:27017/cxa`.

- mongodb-url: `mongodb://<username>:<password>@host/<databasename>`.
- edgeDriverLocation,chromeDriverLocation,chromeDriverLocation : location of the drivers for the respective chrome versions.
- firefoxBinaryLocation : Location of Binary file of firefox.
- logging.file.name : log file location.
- saucelabs : saucelabs should be true if need to run in sauceLabs and need to provide remoteUrlForOmnichannelPerformance.
- remoteUrlForOmnichannelPerformance : SauceLab Grid url for running in Sauce Lab Driver (eg: `https://<username>:<acceskey>@ondemand.eu-central-1.saucelabs.com:443/wd/hub`)
- remoteUrl : Need to provide the cloud Url with `http://<url>` or `https://<url>`
- app.jwt.token.secret.key is the token secret encryption key which can we used as the JWT signature key.
- app.jwt.token.expiratrion.millisec will be time duration of the expiration of the token.
- app.permission.admin will be admin user permissions will exclude all method checks.

Permission details

- Reports Controller we need permissions as below

````
```json
[
{
  "_id" : "cxa.report.read",
  "group": "report",
  "name" : "Read Report"
},
{
  "_id" : "cxa.report.write",
  "group": "report",
  "name" : "Update Report"
}
]
```
````

MODULE 4 – CXA (SEO, Security, Performance, Accessibility, Active Monitor) - Api

SOFTWARES REQUIRED

SOFT WARE	VER SION	DOWNLOAD LINK
Java	11	Java Archive Downloads - Java SE 11 | Oracle India
IntelliJ Idea	Lates t	Download IntelliJ IDEA – The Leading Java and Kotlin IDE (jetbrains.com)
Gradle	6.8.3	Gradle | Thank you for downloading Gradle!
Mango DB	4.2.2 3	Download MongoDB Community Server | MongoDB
Robo 3t	1.4	Robo 3T | Free, open-source MongoDB GUI (formerly Robomongo)

NSSM	2.24	NSSM - the Non-Sucking Service Manager
Google Chrome	114	https://www.google.com/chrome/?brand=YTUH&gclid=EAIaIQobChMIj4bqtcmYgAMV8pJmAh1rTQMvEAAYASAAEgIxEvD_BwE&gclsrc=aw.ds
Edge	114	https://www.microsoft.com/en-us/edge/download?form=MA13FJ
Firefox	114	https://www.mozilla.org/en-US/firefox/new/

PORTS

Ports to be opened:

- Port **80 -** Node
- Port **27017** - Mongo DB
- Port **3035** - SEO-Api
- Port **3190** - Active Monitor-Api
- Port **3047** - Performance-Api
- Port **3044** - Accessibility-Api
- Port **3087** - Security-Api

SOFTWARE INSTALLATION & SETUP

JAVA(JDK) Installation:

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DATABASE Setup and Configuration:

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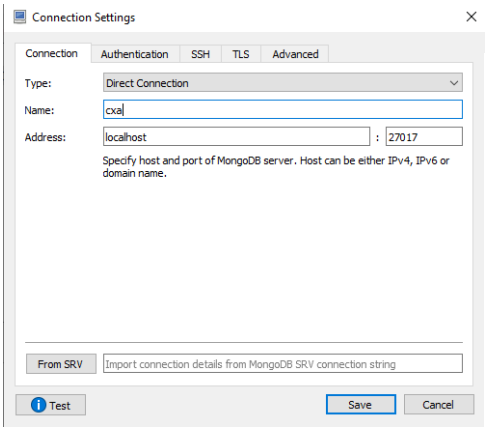
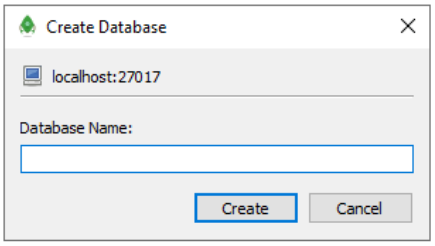
- Install Mongo Db from software list.
- If you use default, it will be no access.
- Check with Command Prompt whether MongoDb Server is installed.

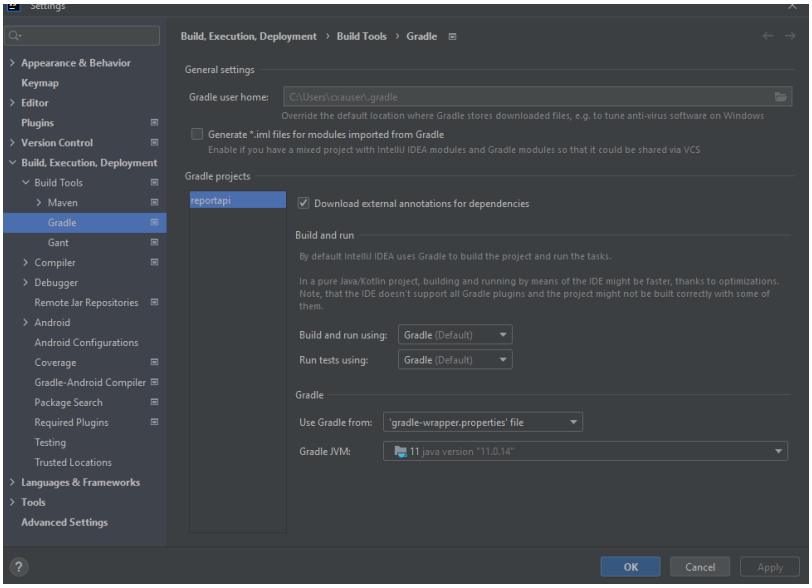
- Open Robo 3T to check the connection (the below steps need to be followed)
- After That click on the cxa and create a database cxa.



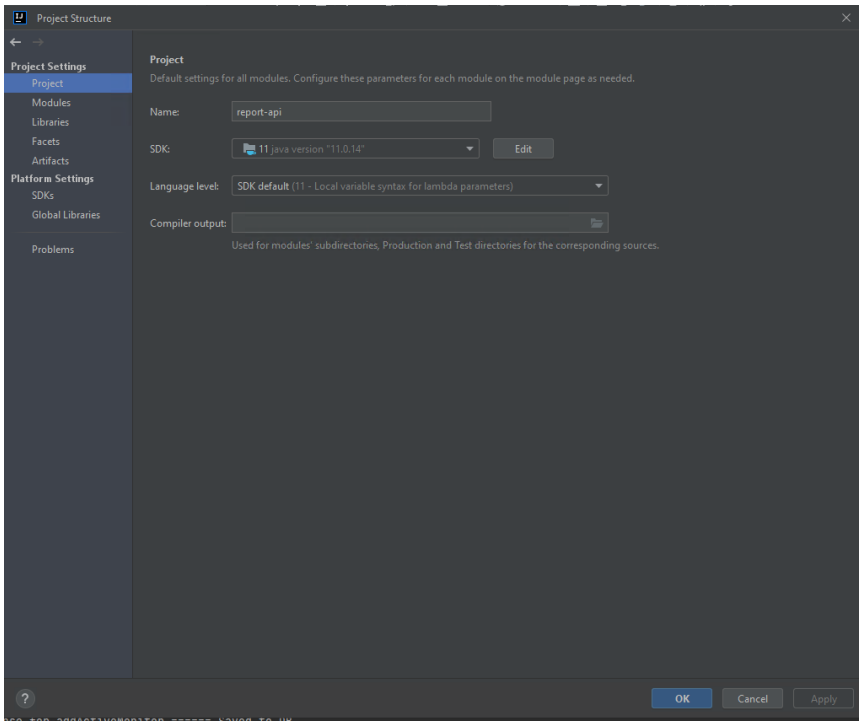


IntelliJ Workbench-Api Setup and Configuration:

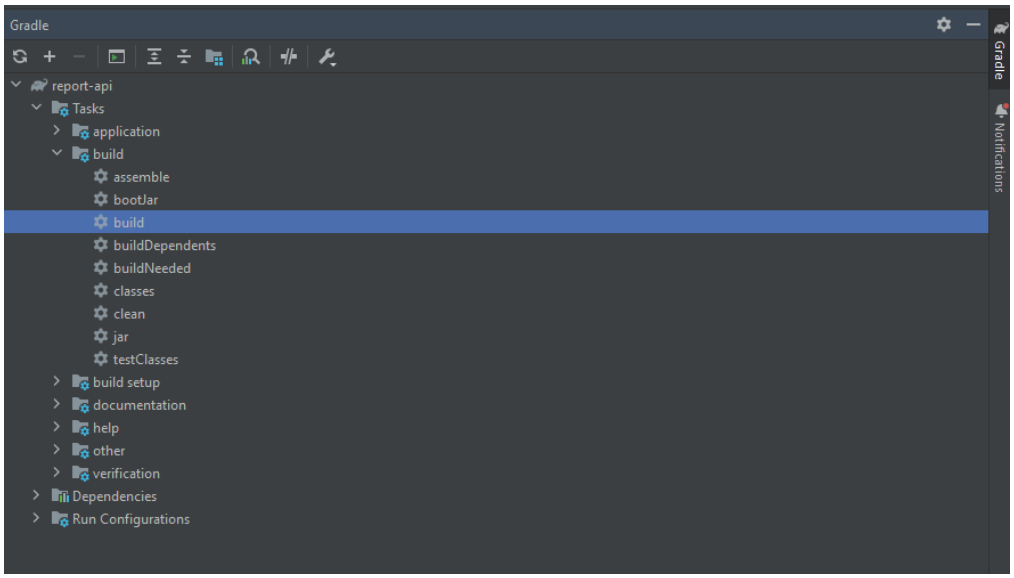
- Download and setup IntelliJ.
- Once its completed open IntelliJ open the project inside IntelliJ config File-> settings ->Gradle set the Gradle wrapper present in the code.



- Set the JDK in file -> Project structure.



- Then Run Gradle build it will create a build folder.
- The build jar will be present inside build/libs.

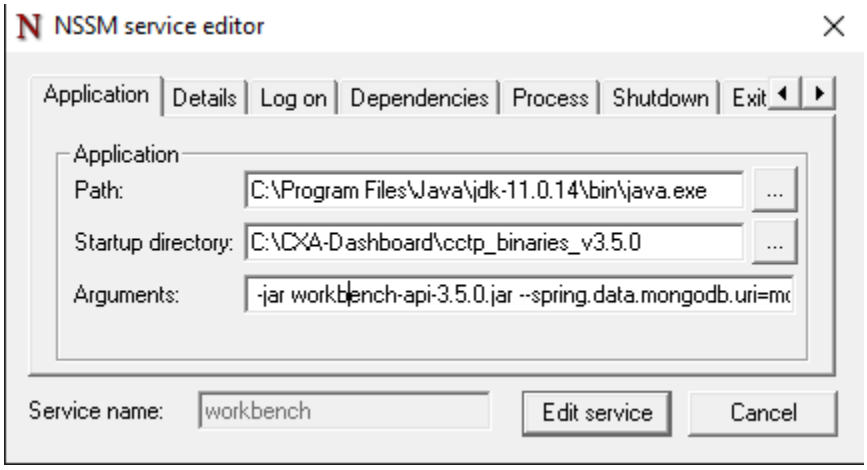


Chrome, Edge, Firefox Setup and Configuration:

1. Download all the browsers and install in your machine.
2. Download the respective drivers for the respective browser versions also and mention the file location in respective properties file.
    a. Chrome driver – Google Chrome.
    b. Gecko driver – Firefox.

c. Msedge driver – Microsoft Edge.

NSSM Setup and Configuration:

1. Download and install NSSM software it will be present in program files.
2. Create a folder for CXA-Viewer and copy the build from the generated jar.
3. Open command prompt cd C:\Program Files\nssm-2.24\
4. Run nssm install workbench in command prompt.
   a. 

5. The path will be Java path (e.g., C:\Program Files\Java\jdk-11.0.14\bin\java.exe)
6. Startup directory will be fold of the jar present. (e.g., C:\CXA-Viewer)
7. Arguments:
   a. -jar <respective api>-api-1.0.0.jar

Properties File Configuration:

- Run Gradle build it will create a build folder.
- The build jar will be present inside build/libs.
- Run `-jar <respective api>-api-1.0.0.jar
- mongodb-url: `mongodb://<username>:<password>@host/<databasename>`.
- edgeDriverLocation, chromeDriverLocation, chromeDriverLocation: location of the drivers for the respective chrome versions.
- firefoxBinaryLocation : Location of Binary file of firefox.
- logging.file.name: log file location.
- remoteUrl: Need to provide the cloud Url with `http://<url>` or `https://<url>`
- app.jwt.token.secret.key is the token secret encryption key which can we used as the JWT signature key.
- app.jwt.token.expiratrion.millisec will be time duration of the expiration of the token.
- app.permission.admin will be admin user permissions will exclude all method checks.

Permission details

- Reports Controller we need permissions as below

json

```
[
{
  "_id" : "cxa.report.read",
  "group": "report",
  "name" : "Read Report"
},
{
  "_id" : "cxa.report.write",
  "group": "report",
  "name" : "Update Report"
}
]
```

MODULE 5 – CXA Active Monitor Cloud-Api

SOFTWARES REQUIRED

SOFTWARE	VERSION	DOWNLOAD LINK
Java	11	Java Archive Downloads - Java SE 11 | Oracle India
IntelliJ Idea	Latest	Download IntelliJ IDEA – The Leading Java and Kotlin IDE (jetbrains.com)
Gradle	6.8.3	Gradle | Thank you for downloading Gradle!
NSSM	2.24	NSSM - the Non-Sucking Service Manager
Google Chrome	114	https://www.google.com/chrome/?brand=YTUH&gclid=EAIaIQobChMIj4bqtcmYgAMV8pJmAh1rTQMvEAAYASAAEgIxEvD_BwE&gclsrc=aw.ds
Edge	114	https://www.microsoft.com/en-us/edge/download?form=MA13FJ
Firefox	114	https://www.mozilla.org/en-US/firefox/new/

PORTS

Ports to be opened:

- Port **80 -** Node
- Port **27017 -** Mongo DB
- Port **5003 –** Active Monitor Cloud-Api

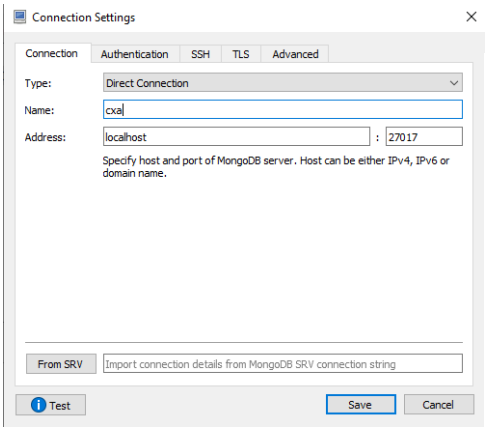
SOFTWARE INSTALLATION & SETUP

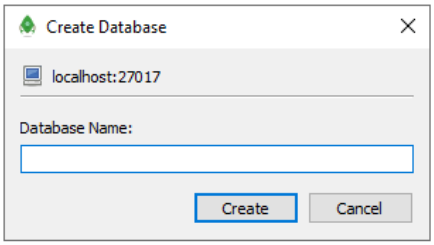
JAVA(JDK) Installation:

1. If you already configured it proceed to next step.
2. Download the java 11 Java Development Kit (JDK) from the provided link suitable for your machine.
3. Setup the environmental variables as JAVA_HOME and configure the file location in PATH also. Check and set how to set up environmental variables for your OS may require administrative rights.
4. Once above steps are completed you can check whether java installation is successful or not by running java -version from command prompt it will show the installed version.

DATABASE Setup and Configuration:

- If you already configured proceed to next step.
- Install Mongo Db from software list.
- If you use default, it will be no access.
- Check with Command Prompt whether MongoDb Server is installed.
- Open Robo 3T to check the connection (the below steps need to be followed)
- After That click on the cxa and create a database cxa.

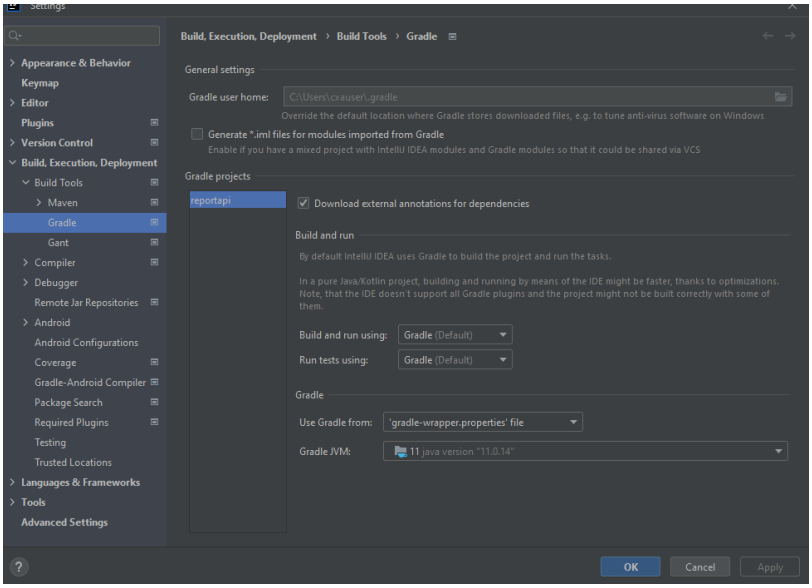




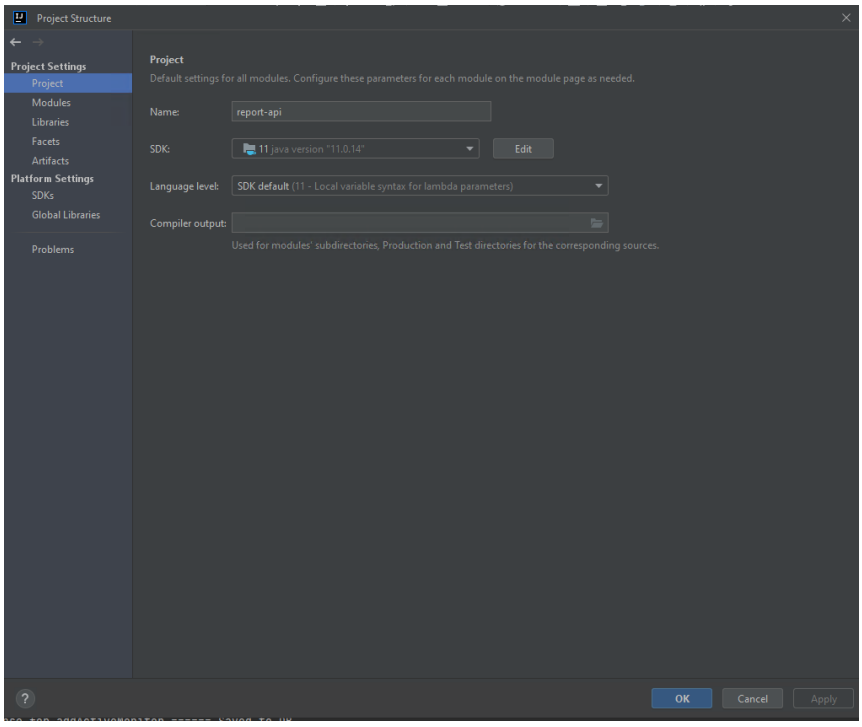
IntelliJ Workbench-Api Setup and Configuration:

- Download and setup IntelliJ.

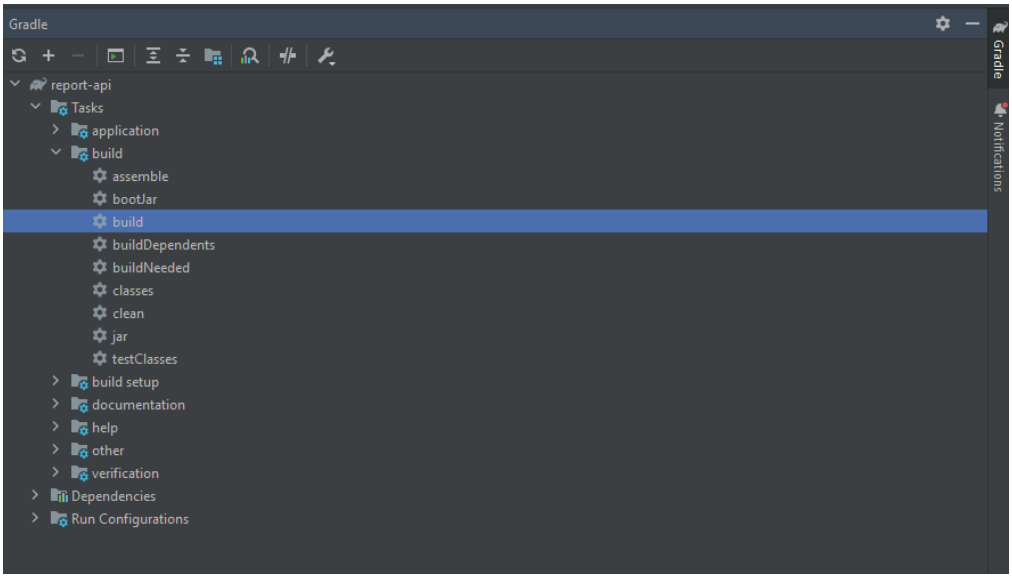
- Once its completed open IntelliJ open the project inside IntelliJ config File-> settings ->Gradle set the Gradle wrapper present in the code.



- Set the JDK in file -> Project structure.



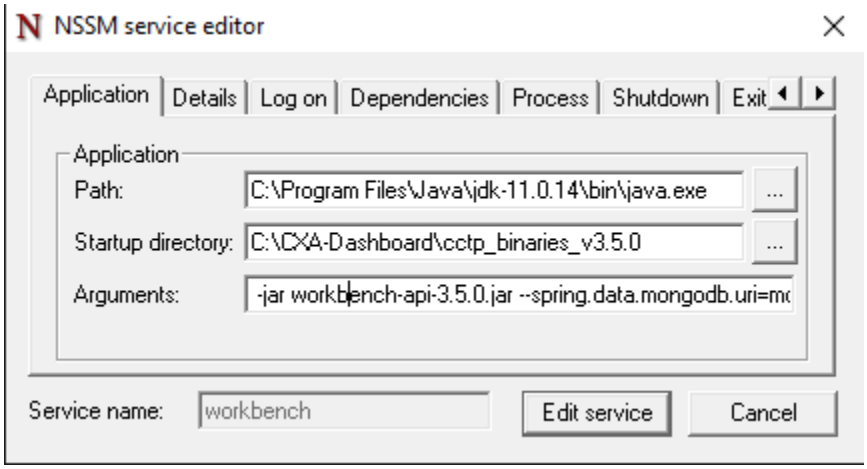
- Then Run Gradle build it will create a build folder.
- The build jar will be present inside build/libs.



Chrome, Edge, Firefox Setup and Configuration:

3. Download all the browsers and install in your machine.
4. Download the respective drivers for the respective browser versions also and mention the file location in respective properties file.
    a. Chrome driver – Google Chrome.
    b. Gecko driver – Firefox.
    c. Msedge driver – Microsoft Edge.

NSSM Active Monitor Cloud-Api Setup and Configuration:

1. Download and install NSSM software it will be present in program files.
2. Create a folder for CXA-Viewer and copy the build from the generated jar.
3. Open command prompt cd C:\Program Files\nssm-2.24\
4. Run nssm install workbench in command prompt.
    a. 

5. The path will be Java path (e.g., C:\Program Files\Java\jdk-11.0.14\bin\java.exe)

6. Startup directory will be fold of the jar present. (e.g., C:\CXA-Viewer)
7. Arguments:
    a. -jar java-selenium-api-1.0.0.jar

Properties File Configuration:

- Run Gradle build it will create a build folder.
- The build jar will be present inside build/libs.
- Run `-jar java-selenium-api-1.0.0.jar
- mongodb-url: `mongodb://<username>:<password>@host/<databasename>`.
- edgeDriverLocation,chromeDriverLocation,chromeDriverLocation : location of the drivers for the respective chrome versions.
- firefoxBinaryLocation : Location of Binary file of firefox.
- logging.file.name : log file location.
- remoteUrl : Need to provide the cloud Url with `http://<url>` or `https://<url>`
- app.jwt.token.secret.key is the token secret encryption key which can we used as the JWT signature key.
- devurl : main server url
- app.jwt.token.expiratrion.millisec will be time duration of the expiration of the token.
- app.permission.admin will be admin user permissions will exclude all method checks.

Permission details

- Reports Controller we need permissions as below

````
````json
[
{
  "_id" : "cxa.report.read",
  "group": "report",
  "name" : "Read Report"
},
{
  "_id" : "cxa.report.write",
  "group": "report",
  "name" : "Update Report"
}
]
````
````

MODULE 6 – Node Light House - Api

SOFTWARES REQUIRED

SOFTWARE	VERSION	Download Link
NodeJS	16.16.0	Node v16.16.0 (LTS) | Node.js (nodejs.org)
NSSM	2.24	NSSM - the Non-Sucking Service Manager
VS Code	Any	Download Visual Studio Code - Mac, Linux, Windows
Google Chrome	114	https://www.google.com/chrome/?brand=YTUH&gclid=EAIaIQobChMIj4bqtcmYgAMV8pJmAh1rTQMvEAAYASAAEgIxEvD_BwE&gclsrc=aw.ds
Edge	114	https://www.microsoft.com/en-us/edge/download?form=MA13FJ
Firefox	114	https://www.mozilla.org/en-US/firefox/new/

PORTS

Ports to be opened:

- Port **80 -** Node
- Port **27017** - Mongo DB
- Port **5001** - Lighthouse-Api

NODE COMPONENT

Node.js Installation:

1. Visit the official Node.js website (**https://nodejs.org**) and download the appropriate installer for your operating system.
2. Run the installer and follow the on-screen instructions to complete the installation.
3. After installation, open a command prompt or terminal and type node -v to verify that Node.js is installed correctly. You should see the version number displayed.

Node.js Deployment:

1. After installing node cd to the project cd lighthouse

2. Run command npm install it will create all the dependencies and install all the required dependencies.
3. Once it done go to configuration file and configure all the values
4. Run node server/server.js and it will be running on 5001 Port.

NSSM Setup and Configuration:

1. Download and install NSSM software it will be present in program files.
2. Create a folder for CXA-Viewer and copy the build from the generated jar.
3. Open command prompt cd C:\Program Files\nssm-2.24\
4. The path will be Node path.
5. Startup directory will be fold of the jar present. (e.g., C:\CXA-Viewer\Lighthouse)
6. Arguments:
   node server/server.js

MODULE 7 – ANGULAR

SOFTWARES REQUIRED

SOFTWARE	VERSION	Download Link
NodeJS	16.16.0	Node v16.16.0 (LTS) | Node.js (nodejs.org)
NSSM	2.24	NSSM - the Non-Sucking Service Manager
VS Code	Any	Download Visual Studio Code - Mac, Linux, Windows
NGINX	1.2	nginx: download

NODE COMPONENT

Node.js Installation:

1. Visit the official Node.js website (**https://nodejs.org**) and download the appropriate installer for your operating system.
2. Run the installer and follow the on-screen instructions to complete the installation.
3. After installation, open a command prompt or terminal and type node -v to verify that Node.js is installed correctly. You should see the version number displayed.

ANGUALR COMPONENT

Angular Installation and Deployment:

1. Install Angular CLI: - Open a command prompt or terminal and run the following command to install the Angular CLI globally:

   npm install -g @angular/cli
2. Navigate to the project directory: - Change to the project directory by running the following command:

   cd CXA-VIEWER
3. Serve the application locally: - To test your application locally, run the following command:

   ng serve -o --host=0.0.0.0 --disable-host-check

4. This will compile the application and start a local development server. You can access your application in a web browser at http://localhost:4200.
5. Build the application for production: - When you are ready to deploy your application, you need to build it for production and. Run the following command:

   ng build --subresource-integrity --prod --base-href=/ --deployUrl=/ --output-path=./dist/out
6. This will create a dist directory with the compiled and optimized version of your application.

NGINX Installation and Deployment:

1. Install NGINX from the link.
2. Replace the nginx.config file with the nginx.config file provide.
3. Deploy the dist created in a folder and config the file location inside the NGINX config file.