13. Grid Configuration Using JSON

1. Configuring the grid hub using JSON

a. Create JSON file for the hub which looks like

```
{
    "port": 4444,
    "newSessionWaitTimeout": -1,
    "servlets" : [],
    "withoutServlets": [],
    "custom": {},
    "capabilityMatcher": "org.openqa.grid.internal.utils.DefaultCapabilityMatcher",
    "throwOnCapabilityNotPresent": true,
    "cleanUpCycle": 5000,
    "role": "hub",
    "debug": false,
    "browserTimeout": 0,
    "timeout": 1800
}
```

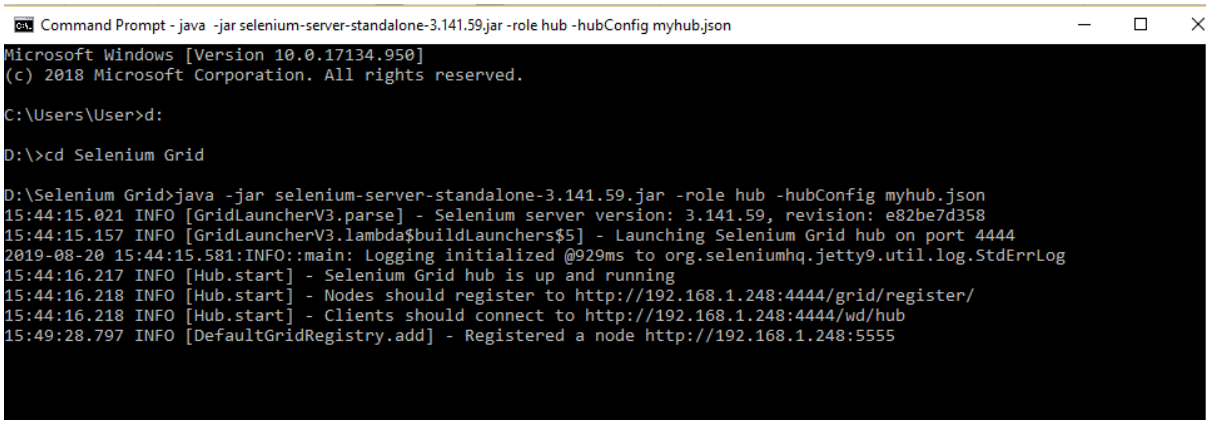
b. Save it in a folder with a valid name (example: myhub) in which we have saved Selenium standalone Server jar file

c. Go to command prompt

d. Navigate to folder structure where you have saved the Selenium standalone Server jar file

e. Type the below command in command prompt

Java -jar selenium-server-standalone-3.141.59.jar -role hub -hubConfig myhub.json and click on **Enter** button, which looks like



f. Open the Chrome browser

g. Enter URL as ‘http://localhost:4444/grid/console’ and click on enter

h. Grid console page is loaded as below

2. Configuring the grid nodes using JSON

a. Once the Selenium Grid Hub using JSON is configured, the next step is to configure Selenium Grid nodes using JSON.

b. Create JSON file for node, which looks like:

```
{
  "capabilities":
  [
    {
      "browserName": "firefox",
      "maxInstances": 5,
      "seleniumProtocol": "WebDriver"
    },
    {
      "browserName": "chrome",
      "maxInstances": 5,
      "seleniumProtocol": "WebDriver"
    }
  ],
  "proxy": "org.openqa.grid.selenium.proxy.DefaultRemoteProxy",
  "maxSession": 5,
  "port": 5555,
  "register": true,
  "registerCycle": 5000,
  "hub": "http://localhost:4444",
  "nodeStatusCheckTimeout": 5000,
  "nodePolling": 5000,
  "role": "node",
  "unregisterIfStillDownAfter": 60000,
  "downPollingLimit": 2,
  "debug": false,
  "servlets" : [],
  "withoutServlets": [],
  "custom": {}
}
```

c. Save it in a folder with a valid name (example: mynode) in which we have saved Selenium standalone Server jar file

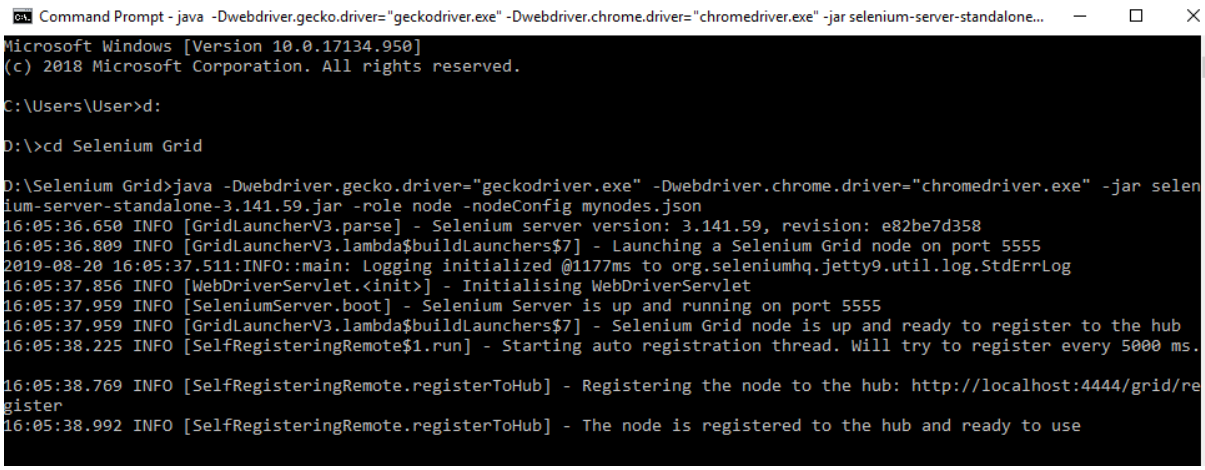
d. Open the new command prompt

e. Navigate to the folder structure where you have saved the Selenium standalone server jar file

f. Type the below command in command prompt

java -Dwebdriver.gecko.driver="geckodriver.exe" -Dwebdriver.chrome.driver="chromedriver.exe" -jar selenium-server-standalone-3.141.59.jar -role node -nodeConfig mynodes.json

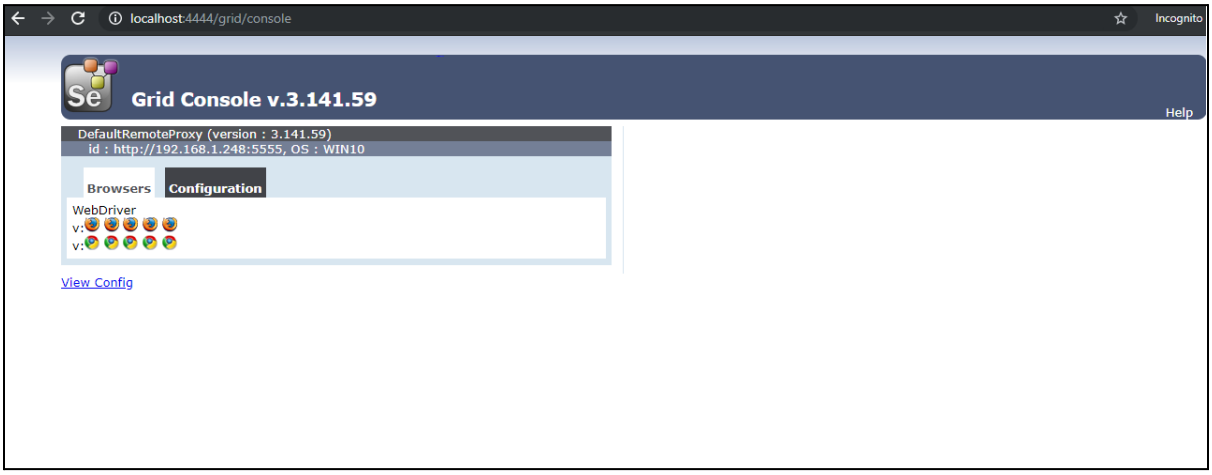
and click on E**nter** button, which looks like



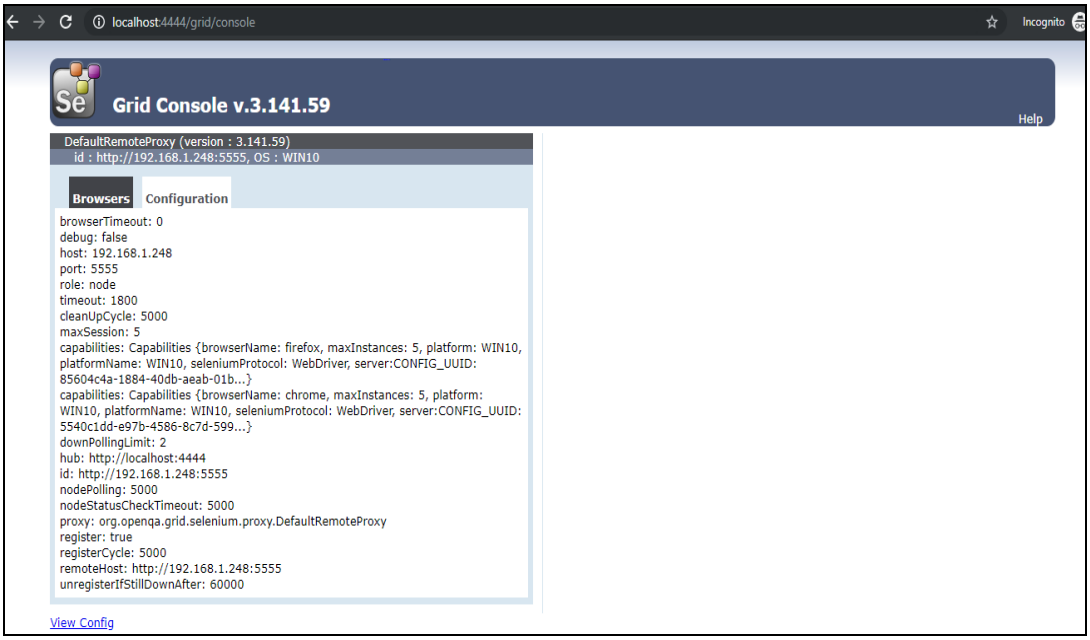
g. Open the browser

h. Enter URL as **http://localhost:4444/grid/console** and click on E**nter**

i. Grid console page is loaded, which shows **Browsers** by default



j. Click on **Configuration** which shows Configuration details



Pushing the code to your GitHub repositories : -

- Open your folder where the Project . And then click the right button to open the git bash command prompt.
- Before that, open the github and create a new repository.
- Initialize your repository using the following command:

git init

- Add all the files to your git repository using the following command:

git add .

- To check the status of the repository use the below command:

git status

- Commit the changes using the following command:

git commit . -m “Changes have been committed.”

- To add the files to the repository use the (URL) from the github and use the command;

git remote add origin <url>

- Push the files to the folder you initially created using the following command:

git push origin master.