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University, Chennai

DEPARTMENT OF COMPUTER SCIENCE AND TECHNOLOGY

Course Code and Name : 19TS601 FULL STACK DEVELOPMENT

Unit 3 : NODEJS AND EXPRESS

Topic : Node.js Inspector



Node.js Inspeccor

What is inspector in Node.js?

Inspector in node.js is a debugging interface for node.js application that is contained in the app.js file and used blink developer tools.

- It works almost similar to chrome developer tools.
- It can support almost all the feature that a debugger generally have such as navigating to source files, setting breakpoints, CPU and heap profiling, network client requests inspection, console output inspections, and many other features.



- How to install?
- It can be installed by running the following command in the command line after installing npm (node package manager).
- `$ npm install -g node-inspector`



- Here in the command, -g flag corresponds to global installation of the inspector.
- After installing if you run command node-inspector, we get an output like this:

```
Node Inspector v1.1.2  
Visit http://127.0.0.1:8080/?port=5858 to start debugging.
```

- After successful installation



- In the above figure, it displays an URL for debugging purpose.
- So, when we point our browser to `http://127.0.0.1:8080/?port=5858`, we get a GUI for debugging.
- Sometimes, port 8080 may not be available on the computer then we will get an error.
- We can change the port (in this case port 5555) on which node-inspector is running by using the following command:

```
$ node-inspector --web-port=5555
```



How to start using it?

- It can be started using following command in command line:

```
$ node-debug app.js
```

where app.js is the name of the main JavaScript application file.
Available configuration options can be seen [here](#).

```
Node Inspector v1.1.2  
Visit http://127.0.0.1:8080/?port=5858 to start debugging.  
Debugging 'app.js'  
Debugger listening on [::]:5858
```

While debugging app.js file



- The node-debug command will load Node Inspector in the default browser.
- Note: Node Inspector works in Chrome and Opera only.



- Then we need to follow three steps given below

1. **Start the node-inspector server:** This can be done by running command:

```
$ node-inspector
```

- The server can be left running in the background, it is possible to debug multiple processes using the same server instance.
- **Advanced Use:** While running node-debug is an easy way to start your debugging session, sometimes we need to tweak the default setup.



2.Enable debug mode in the node process: You can either start Node with a debug flag like:

```
$ node --debug your/node/program.js
```

or,

To pause your script on the first line:

```
$ node --debug-brk your/short/node/script.js
```

Or

one can enable debugging on a node that is already running by sending it a signal:



1. Get the PID of the node process using your favorite method.

pgrep or ps -ef are good.

```
$ pgrep -l node
```

```
2345 node your/node/server.js
```

2. Send it the USR1 signal

```
$ kill -s USR1 2345
```

3. **Load the debugger UI:** Open <http://127.0.0.1:8080/?port=5858> or the produced URL in the Chrome browser.



ASSESSMENT

1. What is nodejs Inspector?



Text Book:

1. Pro MERN Stack, Full Stack Web App Development with Mongo, Express, React, and Node, Vasan Subramanian, A Press Publisher, 2019.

Reference:

David Flanagan, “Java Script: The Definitive Guide”, O’Reilly Media, Inc, 7 th Edition, 2020

2. Matt Frisbie, “Professional JavaScript for Web Developers” Wiley Publishing, Inc, 4th Edition, ISBN: 978-1-119-36656-0, 2019



Thank
You!

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