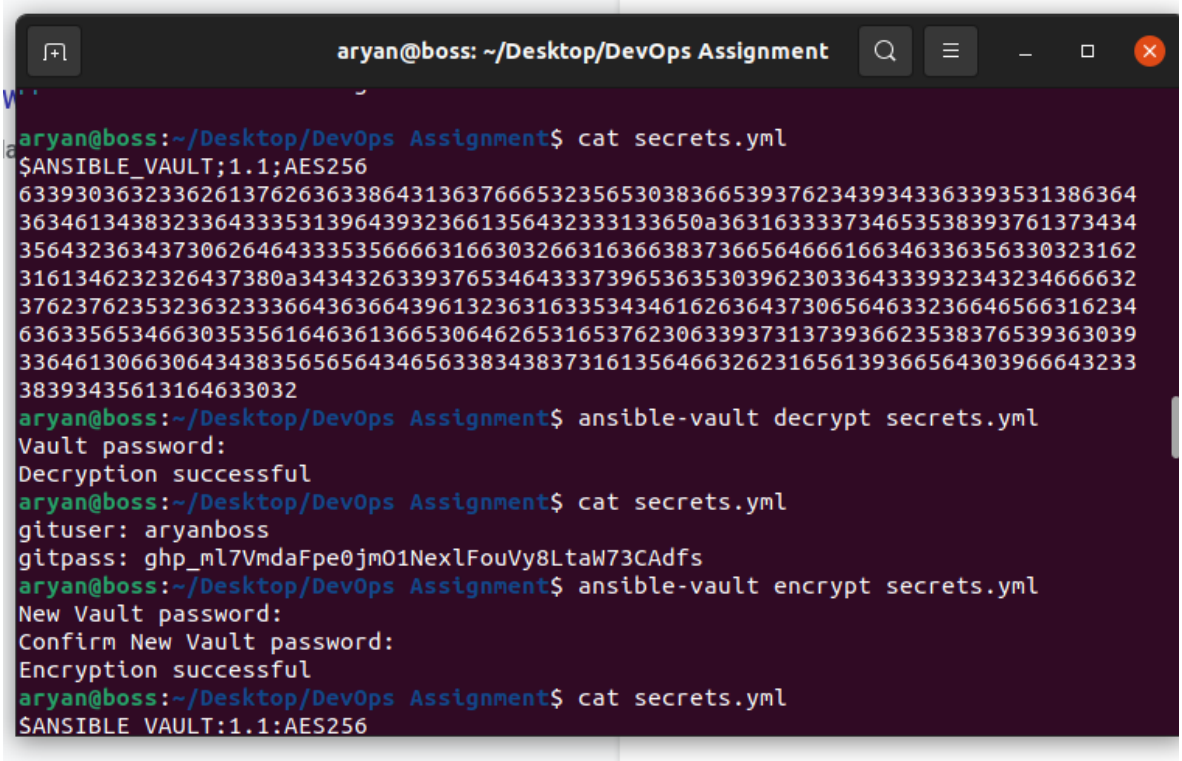
Team 5
DevOps Assignment 2
IIIT DHARWAD
26 Sept 2021

Ansible Playbook Exercise

- Create a secrets.yml file in a folder with ansible-vault
- Put your GitHub id and personal access token(PAT) in encrypted form.
    - *ansible-vault create secrets.yml*
    - *ansible-vault encrypt secrets.yml*
    - *ansible-vault decrypt secrets.yml*
    - *cat secrets.yml*



- Make an EC2 instance with any operating system image and copy its public IPV4 address.
- Write a playbook (book.yml) with all the tasks mentioned in it like installing NodeJS, validating the node js installation, Change the ownership of the, Install Directory, Install Dependencies with NPM install command, Debug npm install command, Validating port and other tasks.

book.yml
~/Desktop/DevOps Assignment

test.js | book.yml

```yaml
---
  - name: Install and Launch the Simple NodeJS Application
    hosts: 54.211.146.182
    vars_files:
       - secrets.yml
    vars:
       - destdir: /apps/SampleNodeApp
    tasks:

       - name : install NodeJs
         become: yes
         register: ymrepo
         apt:
           name: nodejs
           state: latest
       - name : install NPM
         become: yes
         register: ymrepo
         apt:
           name: npm
           state: latest

       - name : validate the nodejs installation
         debug: msg="Installation of node is Successfull"
         when: ymrepo is changed

       - name: Version of Node and NPM
         shell:
            "node -v && npm -v"
         register: versioninfo
```

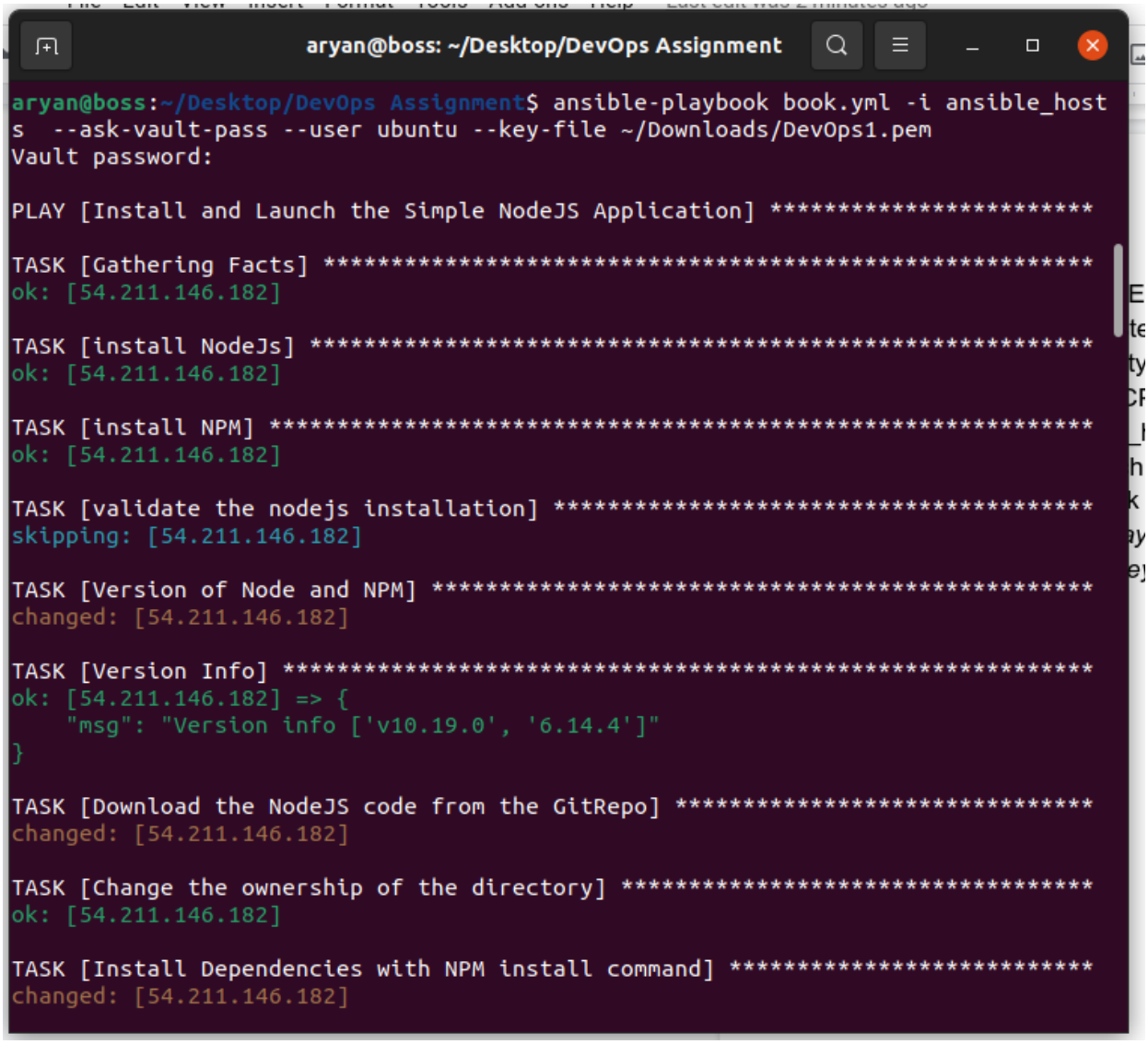
YAML | Tab Width: 8 | Ln 1, Col 1 | INS

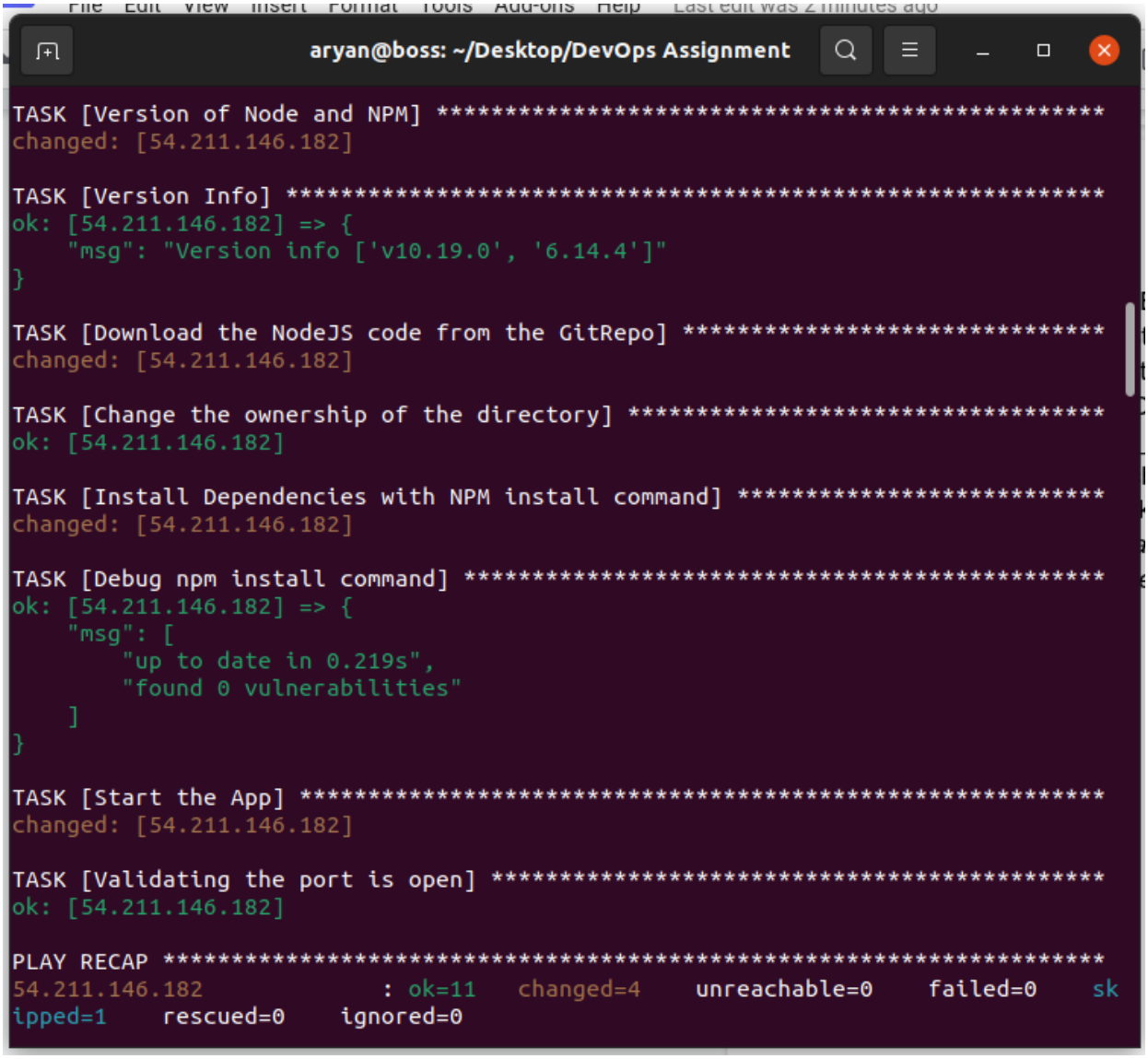
- Write a NodeJS script of any application that should be hosted on the remote server and also mention the port number(5000) , that is to be used In the EC2 instance.

test.js
~/Desktop/IIIT DWD/7th Sem/Assignment_DevOps/Assignment_2_files

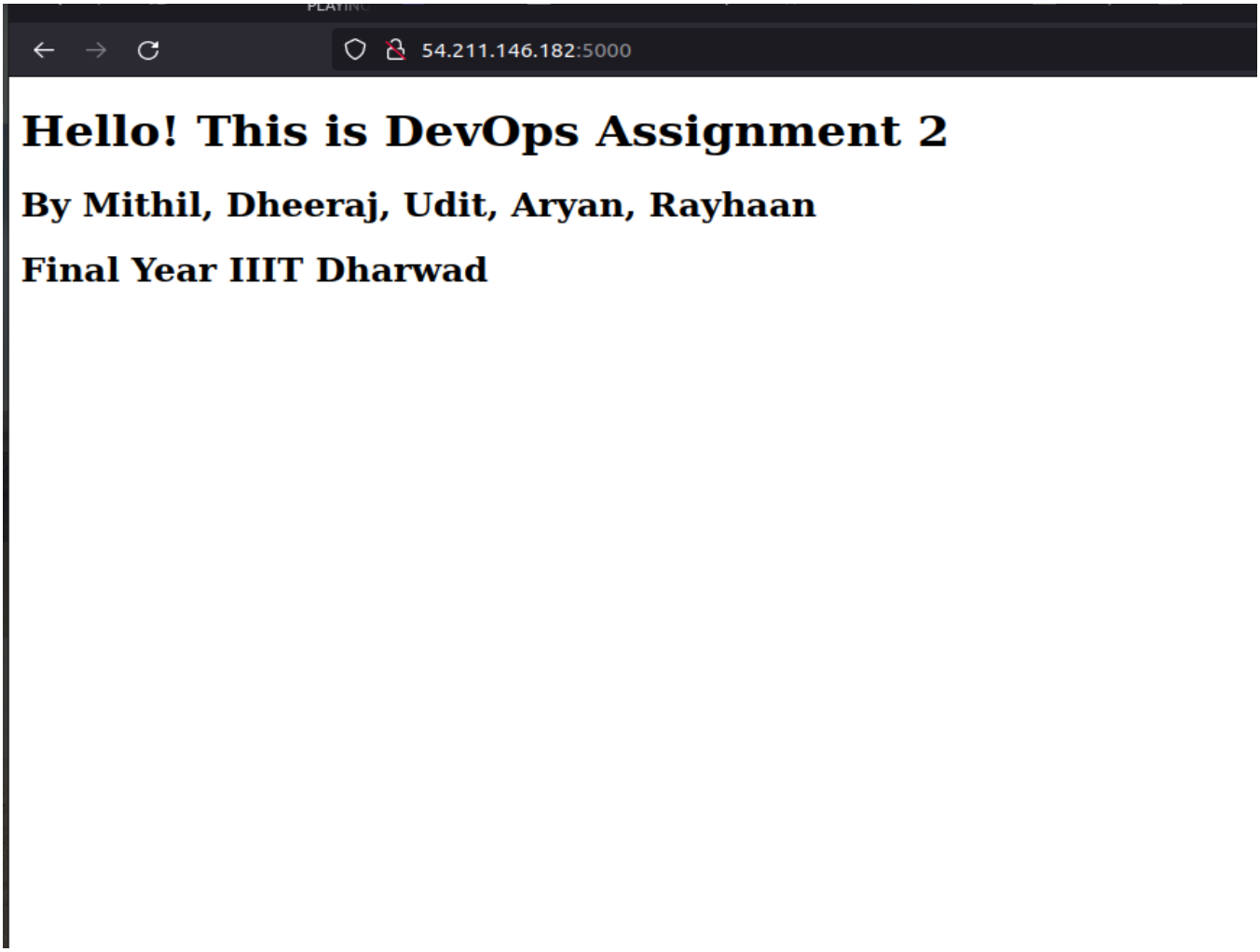
```javascript
const http = require('http');

const server = http.createServer((request, response) => {
        response.write("<html><body><div id = 'container'>");
        response.write("<h1>Hello! This is DevOps Assignment 2</h1>")
        response.write("<h2>By Mithil, Dheeraj, Udit, Aryan, Rayhaan</h2>")
        response.write("</div></body></html>");
        response.write("<h2>Final Year IIIT Dharwad</h2>")
        response.end();
});

server.listen(5000, () => {
        console.log('Server is running...');
});
```

- Upload the NodeJs application onto the Github repository and copy the git address and paste it into the book.yml playbook file.
- Go on the security groups of EC2 instances and edit the inbound rules. Add a custom TCP with port number 5000.
- Make an ansible_host file and mention the IPV4 address of the EC2 instance on which we are going to deploy the NodeJS application.
- Launch the Playbook with Ansible Git: Run the playbook in the terminal with the following command line:
    - *ansible-playbook book.yml -i ansible_hosts --ask-vault-pass --user ubuntu --key-file ~/Downloads/DevOps1.pem*





- The Playbook has run successfully and done all the tasks mentioned in the book.yml file.
- Now let us access the URL http://54.211.146.182:5000/ and test it.
- The NodeJs application is successfully deployed on the remote server.


54.211.146.182:5000
Hello! This is DevOps Assignment 2
By Mithil, Dheeraj, Udit, Aryan, Rayhaan
Final Year IIIT Dharwad

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