Q2. Create an EC2 instance for a Reactjs application and deploy the application and provide the public ip for it, also enable the cloud monitoring on these instances.

- React, which is also known as React.js or ReactJS, is a free and open-source front-end JavaScript library for building user interfaces based on UI components**.**
- We can launch a Reactjs application on EC2 instance and also monitor it.
- For that, We need to install node,npm etc in the instance to deploy the app.

Initial Procedure:

1. Go to EC2 dashboard, choose launch an instance.
2. Named the instance as React_App and selected Amazon Linux 2 as AMI.
3. The instance type selected is t2.micro.
4. Create a new key pair assess.pem and edit the network settings accordingly.
5. Create a security group named Reapp and added security group rules with ssh,http,https,all traffic.
6. Launch the instance React_App.We can see the public ip assigned in details.
7. Now, connect the EC2 instance. It can be done with ssh, instance connect.

In Command prompt:

- It can be done in command prompt, ssh client etc.
- Here, we have selected instance connect.
- Nodejs is required if you want to use a node.js-based build tool.

The following commands have been executed in the given order.

1. First **sudo yum update -y** is the initial command.
2. Next, **sudo yum install node. Js** -y is executed.
3. **Sudo yum install –lts** is followed.
4. curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/v0.39.3/install.sh | bash. ~/.nvm/nvm.sh had to be executed.
5. Now, nvm install –lts is executed in the instance of linux machine.
6. **Nvm install 16** is executed next. It helps us to create an app.
7. **node –version** to check which version is installed.
8. **npx create-react-app my-app** to create an app.

9. **sudo yum install git -y** is followed next to install git in this instance.

10. Now, cloning the repository for reactjs application.

   Git clone https://github.com/snehal-herovired/Devops_Batch_Aditya

11. Change directory with **cd amazonreact** to go into the folder.

12. **npm install is** executed next for packages.

13. **npm run build** is implemented to run the bike.

14. **npm start** is executed to start the appl.

After you enter the npm start, you'll be able to see the react server running and the relevant ports in the shell.

The execution of these commands is necessary to deploy a react_app on amazonEC2 instance. Now the react application is running in the background. You can access the app using port 3000.

Ip address: http://54.236.49.205:3000

Cloud Monitoring:

➢ Amazon CloudWatch monitors your Amazon Web Services (AWS) resources and the applications you run on AWS in real time on your account.

➢ You can use CloudWatch to collect and track metrics, which are variables you can measure for your resources and applications in account

➢ The app deployed on EC2 instance can be monitored in 2 different ways. Generally, the simple monitoring is enabled by default. Another is Detailed Monitoring.

• Select the instance, React_App .

• Select the drop down menu of actions.

• Choose Monitoring and troubleshoot.

• In that menu, select Detailed monitoring and check the enable box.

• Now, you can view the monitoring of the ec2 instance.