**Question 2:**

**Create an EC2 instance for a Reactjs application and deploy the application and provide public ip for it and also enable the cloud monitoring on this instances**

EC2: EC2 stands for Elastic Compute Cloud. It provides scalable computing capacity in AWS cloud. By using EC2 service we can reduce investing in hardware and develop and deploy the applications faster.

By using EC2 service we can use many virtual servers and can configure security and networking and can manage storage.

**Features of EC2:**

* Consists of virtual computing environments known as instances.
* Various configurations of CPU, memory, storage, and networking capacity for our instances types.
* Secure login using key pairs and consists of many physical locations for our instances known as regions and availability zones.
* Preconfigured templates for instances known as Amazon Machine Images (AMI)

**Steps for creating an instance:**

**Step1:** go to ec2 service page in Amazon console page and click on launch instance.

**Step 2:** give a name and tags to the instance.

**Step 3:** select the Amazon Machine Image (AMI) to the instance and select the type of instance you want to create.

**Step 4:** create a new key pair or select an existing key pair for secure login.

**Step 5:** configure network settings for instance such as selecting VPC, subnet, security group.

**Step 6:** configure storage and select number of instances you want to create with the same configurations and launch the instance.

**Creating and deploying a react js application in an instance:**

connect the instance and execute the following commands

**step 1:** execute **sudo yum update**  to update applications installed in the system.

**Step2: sudo yum install node. Js** for installing node .js in linux and **sudo yum install –lts.**

**Step3:** after installing node.js execute command **curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/v0.39.3/install.sh | bash**

**step 4:** execute **. ~/.nvm/nvm.sh**  to manage node versions in the device.

**Step 5: nvm install –lts**  and **nvm install 16** to install a specific version of node.

**Step 6:** now check the version of node you installed by using command **node -version.**

**Step 7:**  now install react js application with the help of **npx create-react-app my-app**

**Step 8:** node node package manager with **npm install -g** [**npm@9.6.2**](mailto:npm@9.6.2)

**Step 9:** now start the application by using **npm start**

**Step 10:** to deploy ample applications for react js go to the application cd my call and clone the application by using git. So to install git use the command **sudo yum install git** and execute **git clone** [**https://github.com/snehal-herovired/Devops Batch\_Aditya**](https://github.com/snehal-herovired/Devops%20Batch_Aditya) to clone the repository to local machine.

**Step 11:** go to the directory Devops\_Batch\_Aditya and got to the directory amazonreact.

**Step 12:** now install npm by using **npm install** and build application by using command **npm run build.**

**Step 13:** now run the application by using command **npm run start** and got to the browser and and paste the public IP of the instance to view the running application.