

2.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 this instance.

EC2:

Amazon Elastic Compute Cloud (EC2) is a web service offered by Amazon Web Services (AWS) that provides resizable compute capacity in the cloud. It enables users to easily launch and manage virtual servers, called instances, in the cloud. EC2 instances can be used for a variety of purposes, including web hosting, data processing, machine learning, and more.

EC2 offers a wide range of instance types, each optimized for different use cases. For example, instances optimized for compute-intensive workloads, memory-intensive workloads, or storage-intensive workloads. Users can choose the instance type that best fits their needs, and can easily scale up or down as their computing requirements change.

The process of deploying the static reactjs application using the Ec2 instance is as follows.

- *Go to the EC2 dashboard
- *Click on the launch instance
- *Once the launch page is opened,under name and tags give the name of the instance as reactserver
- *Adding tags is optional.
- *Select the application and OS images(AMI) choose the amazon linux machine image
- *select the instance type as t2.micro.
- *Key pair(login),either you can create a new key pair or you can use the existing key pair also.
- *Under the network settings tab,choose the default vpc.and choose the subnet as no preference.
- *Auto assign the public ip address.
- *Create the new security group named all traffic and then edit the inbound rules,choose All traffic and source type be anywhere.
- *leave the storage default.
- *click on create the instance.
- *Once the instance comes to the running state,go to the connect and connect the ec2 instance.
- *Once the instance is connect give the below commands step by step.

COMMANDS:

- *to update all the packages ,give the command

sudo yum update

*Once the above command is executed, the packages will be updated.

*Give the below command to install Node.js

sudo yum install nodejs

*Once Node.js is installed, give the below command. There is an option in Yum called "lts" (long-term support) that can be used to filter packages by their support status.

yum install --lts

*Install NVM using the below command

curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/v0.39.3/install.sh | bash

*Give the below command

The command `source ~/.nvm/nvm.sh` is used to source the NVM (Node Version Manager) environment script into your current shell session.

NVM is a tool that allows you to install and manage multiple versions of Node.js on your system. When you install NVM, it installs the necessary files and directories to manage different Node.js versions. However, to use NVM, you need to source the environment script, which sets up the necessary paths and aliases in your shell.

source ~/.nvm/nvm.sh

*Give the command. The command `nvm install --lts` is used to install the latest LTS (Long-Term Support) version of Node.js using NVM (Node Version Manager).

When you run this command, NVM will download and install the latest LTS version of Node.js on your system. The LTS version of Node.js is a stable release that is supported with security updates and bug fixes for an extended period of time, making it a good choice for production environments.

nvm install --lts

*Install Node version 16 using the below command. After giving the below command, installation of Node version 16 will start.

nvm install 16

*Now Node version 16 will get downloaded, then check the version of it

node -v

This command will give the version of Node.

*The command `sudo yum install git` is used to install Git version control system on a Linux-based system using the Yum package manager.

Git is a popular open-source distributed version control system used for software development and other version control tasks. The "yum" command is used on many Linux-based systems to install and manage software packages.

When you run the "sudo yum install git" command, the Yum package manager will download and install Git along with its dependencies on your system. Once the installation is complete, you can use the "git" command from the terminal to interact with Git and manage your code repositories.

sudo yum install git

*Once the git is installed successfully clone the below repository which is containing the amazonreact

The "git clone" command is used to create a copy of a remote Git repository on your local machine.

Once the clone operation is complete, you can use the "git" command to interact with the local copy of the repository, including making changes, committing changes, and pushing changes back to the remote repository.

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

*Once it is cloned successfully, move to the amazonreact folder using the cd command

cd Devops_Batch_Aditya

cd amazonreact

*Now install all the npm packages to run the amazonreact

The "npm install" command is used to install dependencies for a Node.js project.

When you run "npm install" command, NPM (Node Package Manager) will look for a "package.json" file in the current directory, which should contain a list of dependencies and their version requirements. NPM will then download and install all the required dependencies into a "node_modules" directory in your project.

npm install

*Once all packages are installed, you are ready to build

The "npm run build" command is used to create a production-ready build of a React application.

React is a popular JavaScript library for building user interfaces, and "npm" is the package manager for Node.js. When you run "npm run build" command in a React project, it will perform a number of tasks to prepare the project for production

npm run build

***Once the build is successfully runned, and build is successfully completed give the start command**

npm start is a command that is commonly used in Node.js projects to start a development server. When you run npm start, it looks for a start script in your project's package.json file, and then executes that script.

npm start

Once the server is started deploying,

Copy the ipaddress:3000 in the browser to view the webpage.