

AWS

EC2

- create an EC2 instance
 - region: Mumbai (ap-south-1)
 - name: web-server
 - AMI: Ubuntu Server 24.04
 - instance type: t2.micro
 - key: kdac-may21
 - disk: 10GB

```
# change the permissions of pem file
> chmod 400 ~/Downloads/kdac-may21.pem

# connect to the ec2 instance
# > ssh -i <pem file path> ubuntu@<public ip address of ec2 instance>
> ssh -i ~/Downloads/kdac-may21.pem ubuntu@43.204.218.134
```

EC2 instance configuration

mysql

```
# update apt cache
> sudo apt-get update

# install mysql server
> sudo apt-get install mysql-server

# start mysql using root permissions
> sudo mysql
mysql> ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password
BY 'root';
mysql> FLUSH PRIVILEGES;
```

backend

```
# download the nvm
```

```
curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/v0.40.3/install.sh |  
bash  
  
# in lieu of restarting the shell  
\. "$HOME/.nvm/nvm.sh"  
  
# Download and install Node.js:  
nvm install 22  
  
# Verify the Node.js version:  
node -v  
nvm current  
  
# Verify npm version:  
npm -v 9.2".
```

- copy the server directory from local machine to ec2 instance
 - note: please execute these commands on your local machine

```
# go the parent directory of server  
# > cd <parent>  
  
# archive the server directory  
> tar -cvf server.tar server  
  
# upload the server.tar to the server  
> scp -i ~/Downloads/kdac-may21.pem server.tar ubuntu@<ip address>:~/
```

- configure the server on ec2 instance
 - note: please execute these commands on ec2 instance

```
# go the home directory  
> cd ~/  
  
# unarchive the server.tar file  
> tar -xvf server.tar  
  
# go to the server directory and download all packages  
> cd server  
> npm install  
  
# install pm2 (process manager) to run express application forever  
> npm install -g pm2  
  
# start the server in background
```

```
> cd ~/server/
> pm2 start --name server server.js

# get the list of servers running
> pm2 list
```

- configure the ec2 instance to open a required port

```
# go to the management console
# from instances list, select the required instance
# go to the security tab
# open security group
# click "Edit Inbound rules"
# add a new rule
# - type: custom TCP
# - port range: 4000
# - source: Anywhere IPv4
# - filter: 0.0.0.0
# add a new rule
# - type: custom TCP
# - port range: 80
# - source: Anywhere IPv4
# - filter: 0.0.0.0
```

configure react / frontend

build the project

- note: please execute these commands on your machine

```
# build the react project
# note: this command creates a dist directory with website files
> yarn build

# archive the website
> cd dist
> tar -cvf website.tar *
```

```
# upload the website.tar file to the server
> scp -i ~/Downloads/kdac-may21.pem website.tar ubuntu@<ip>:~/
```

install a webserver (apache2)

```
# update the apt cache
> sudo apt-get update

# install apache2
> sudo apt-get install apache2

# go the htdocs directory of apache
> cd /var/www/html

# move the website from home to htdocs
> sudo mv ~/website.tar .

# unarchive the website.tar file
> sudo tar -xvf website.tar
```