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En.No: 21162101014

Sub: EADC (Enterprise Application Development for Cloud)

Branch: CBA

Batch:61

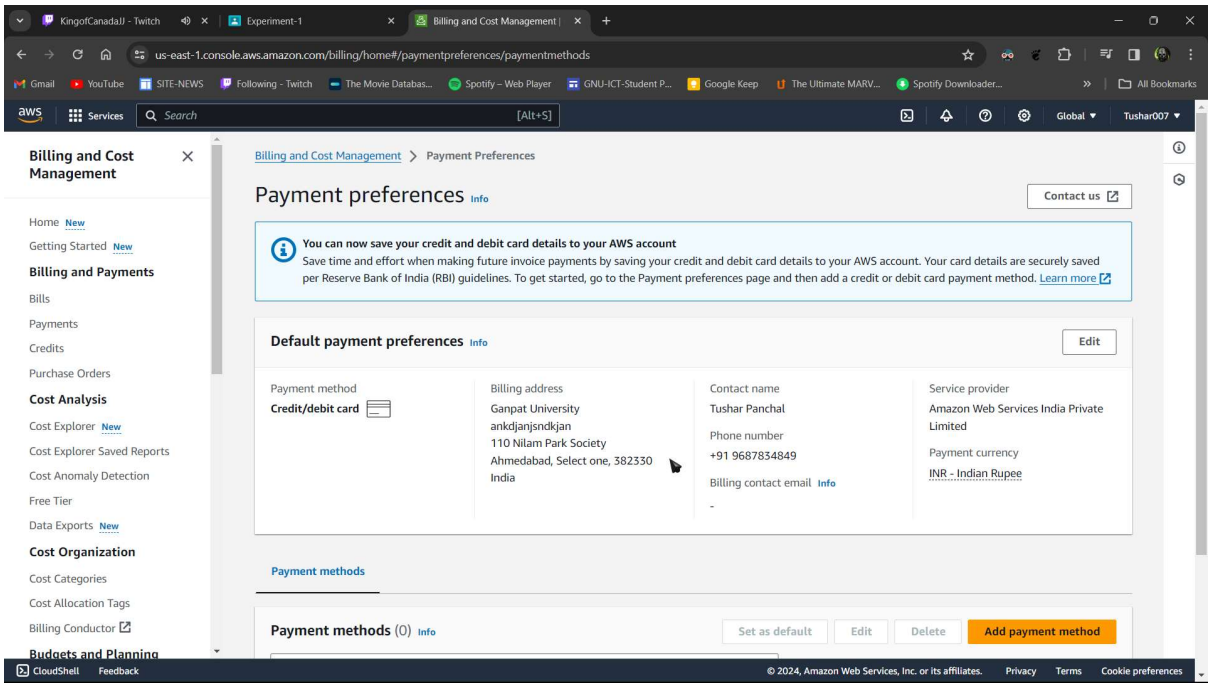
----------PRACTICAL 01----------

- **Question :**

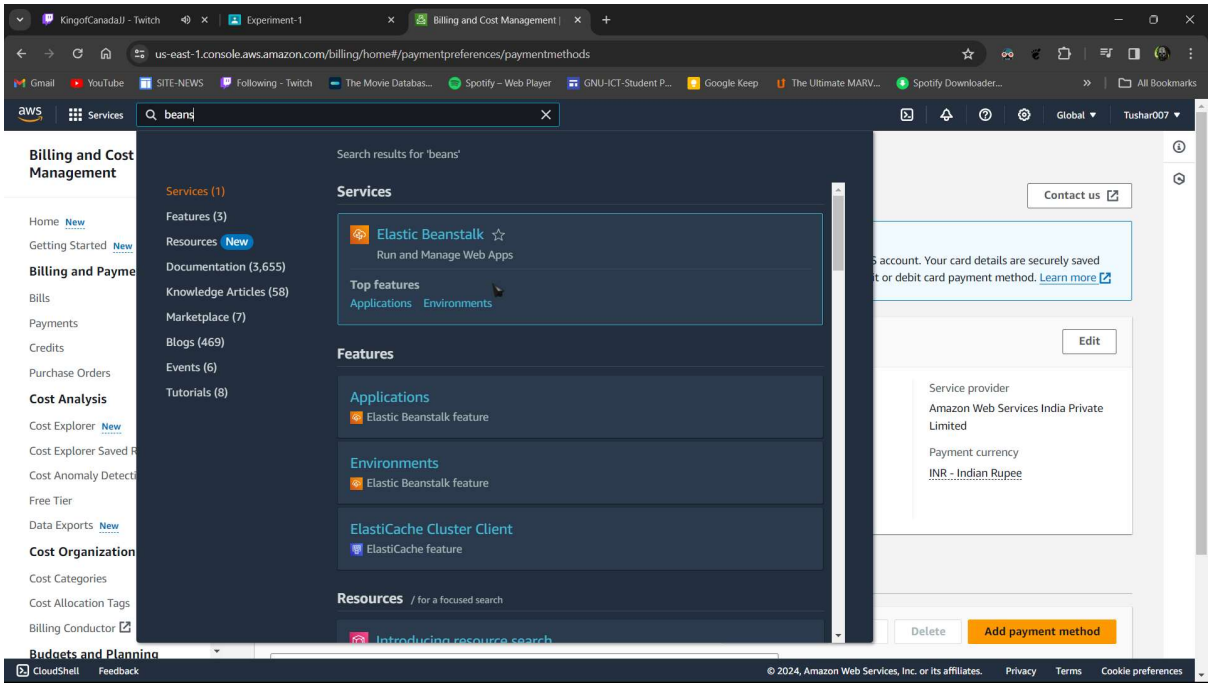
You have a requirement for deploying an existing NodeJS-based application to AWS Cloud. There is a need for automatic scaling for the underlying environment. Implement the AWS Cloud service and resources used to deploy this environment in the quickest way possible.

First of all I deployed sample application. Here's the procedure of making it :

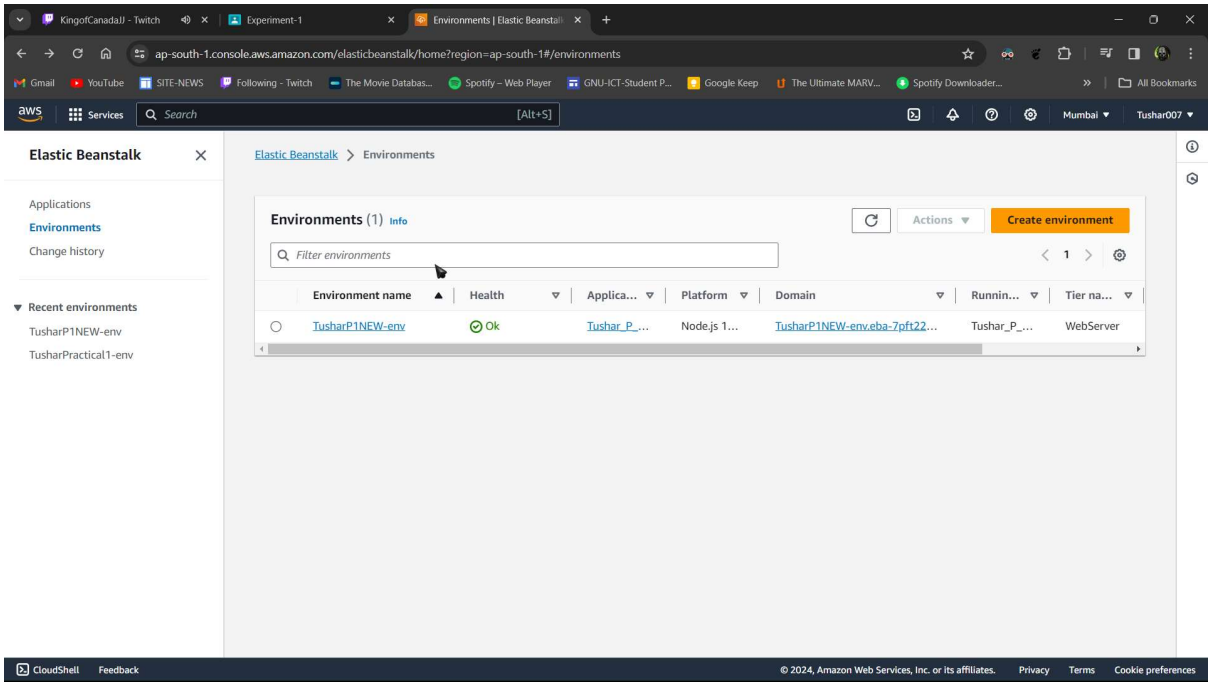
- First I Created the AWS account and logged in to the console :



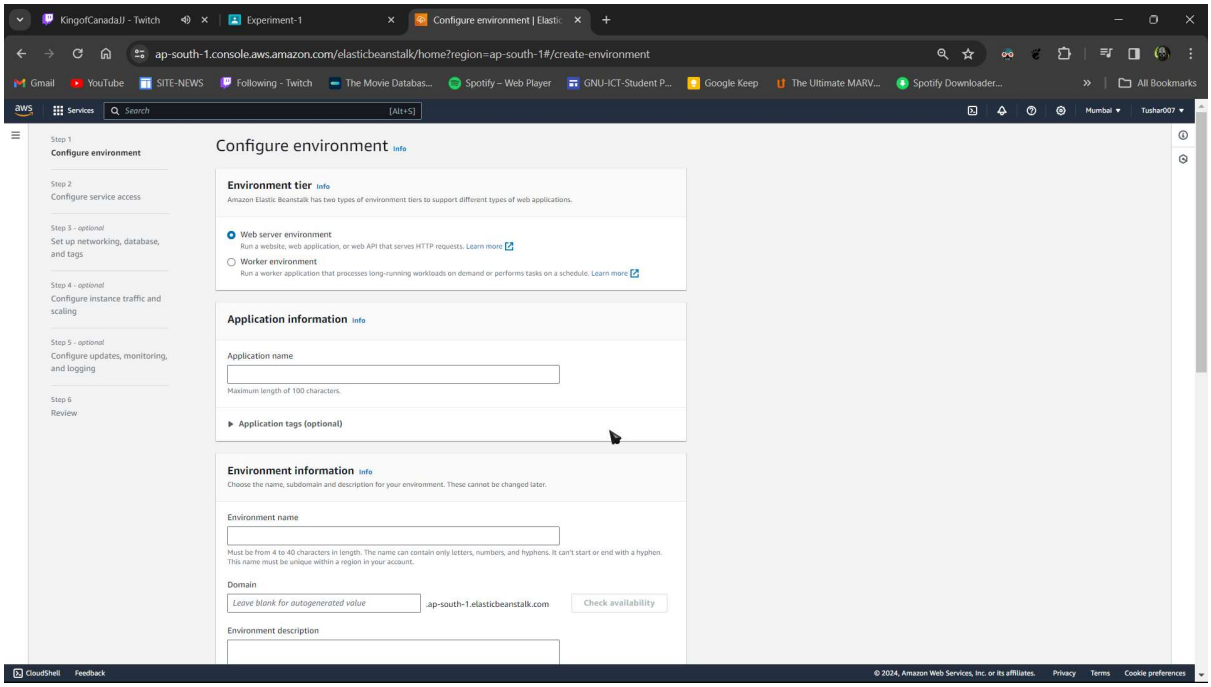
- Then search for the service named "beanstalk" :



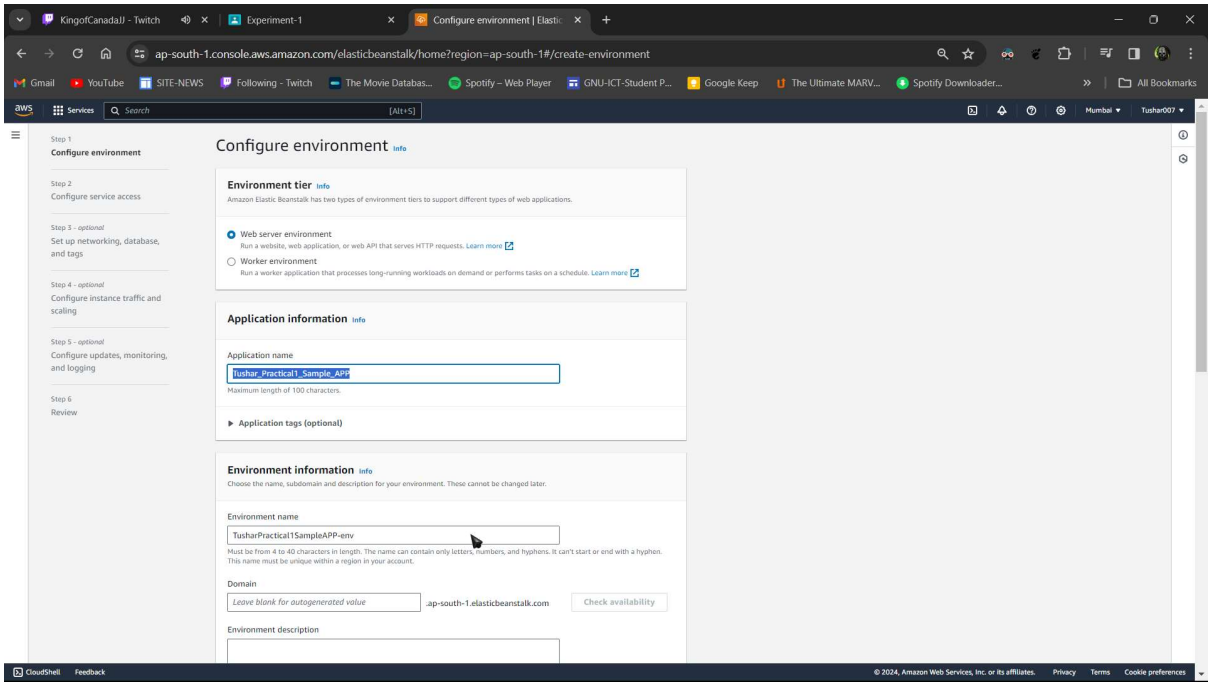
➢ Selected Beanstalk Service :



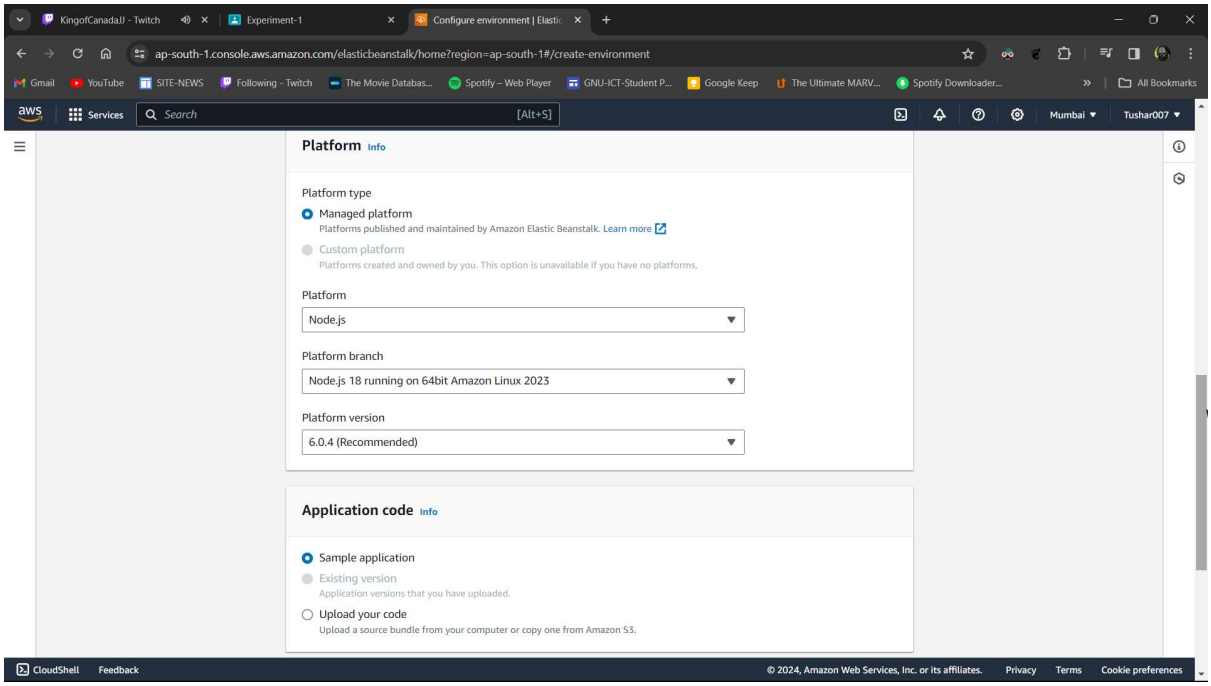
➢ Then clicked on the “Create Application” :



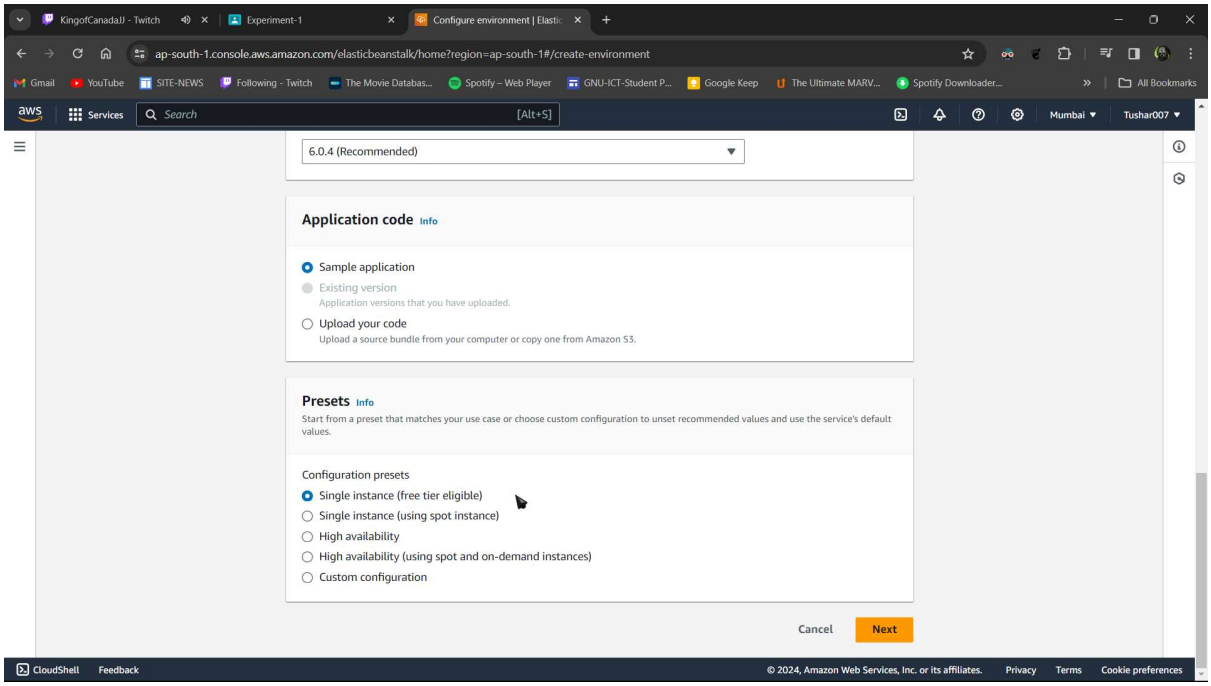
➢ Then gave the name for the application :



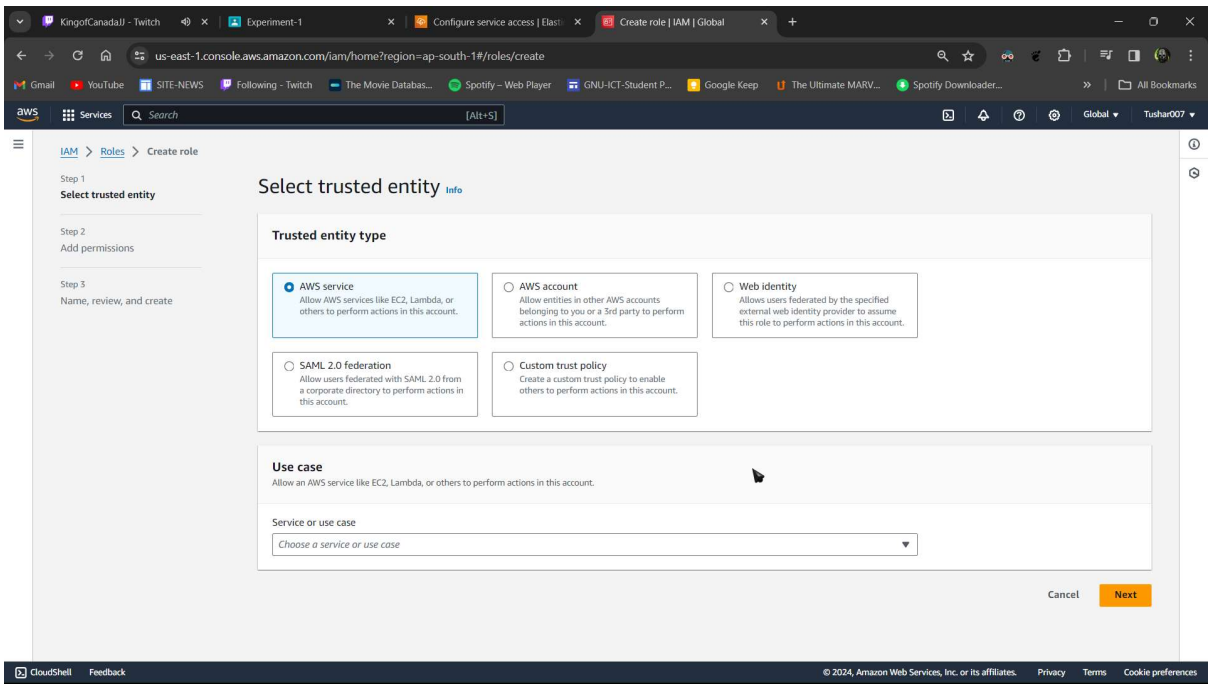
➢ Selected Platform for Node Js and in application code i kept “Sample Application” :



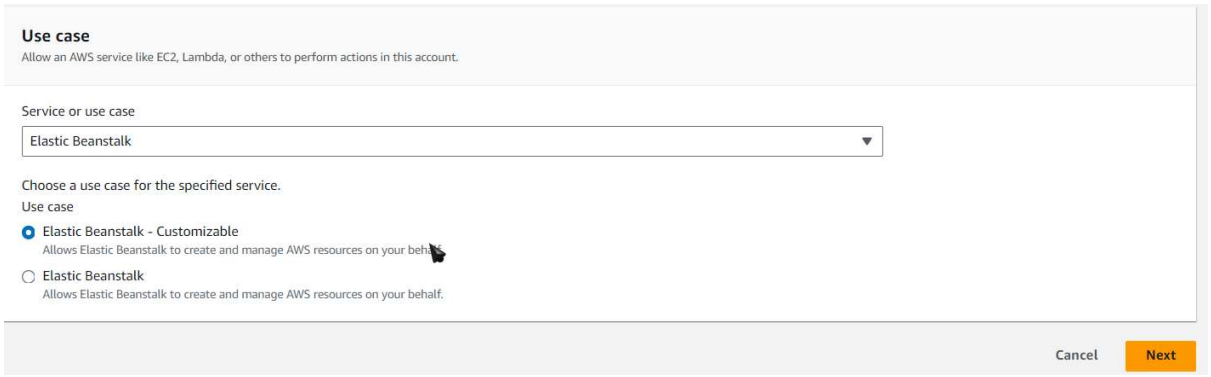
- Selected “single instance(free tier eligible)”, so that we use free instance given by AWS :



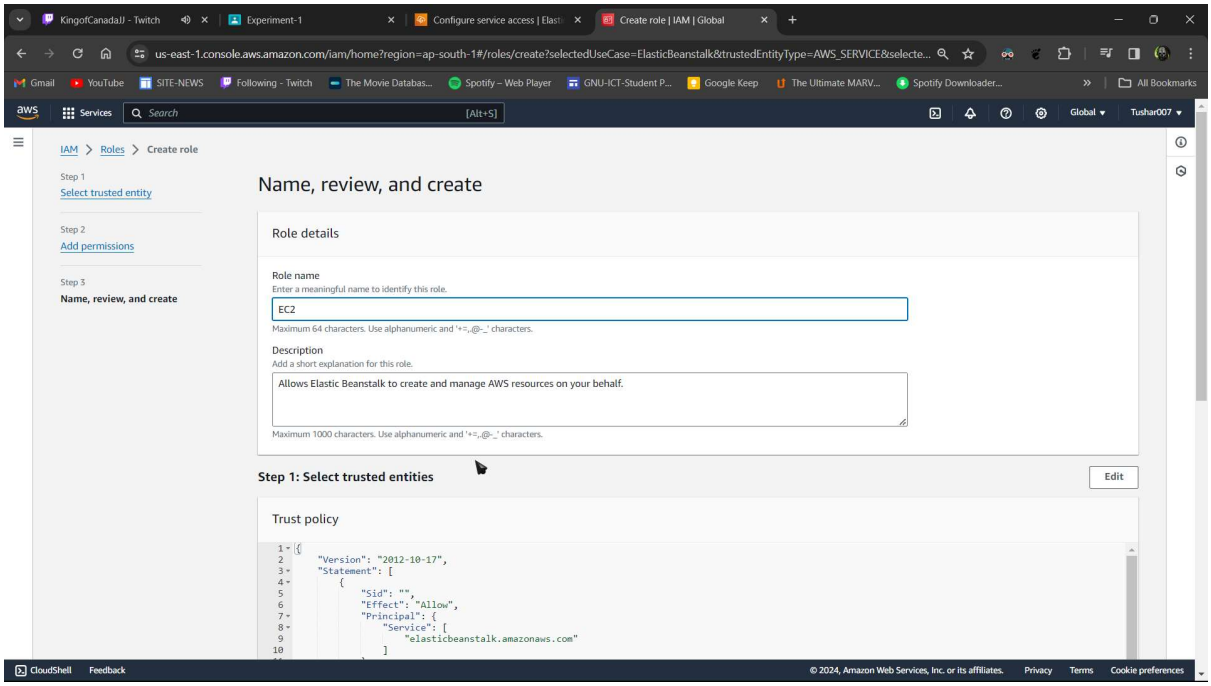
- Now clicked on the next button and then for creating role i opened a new tab and again logged in to the AWS console and then searched for the IAM service and then opened IAM dashboard:



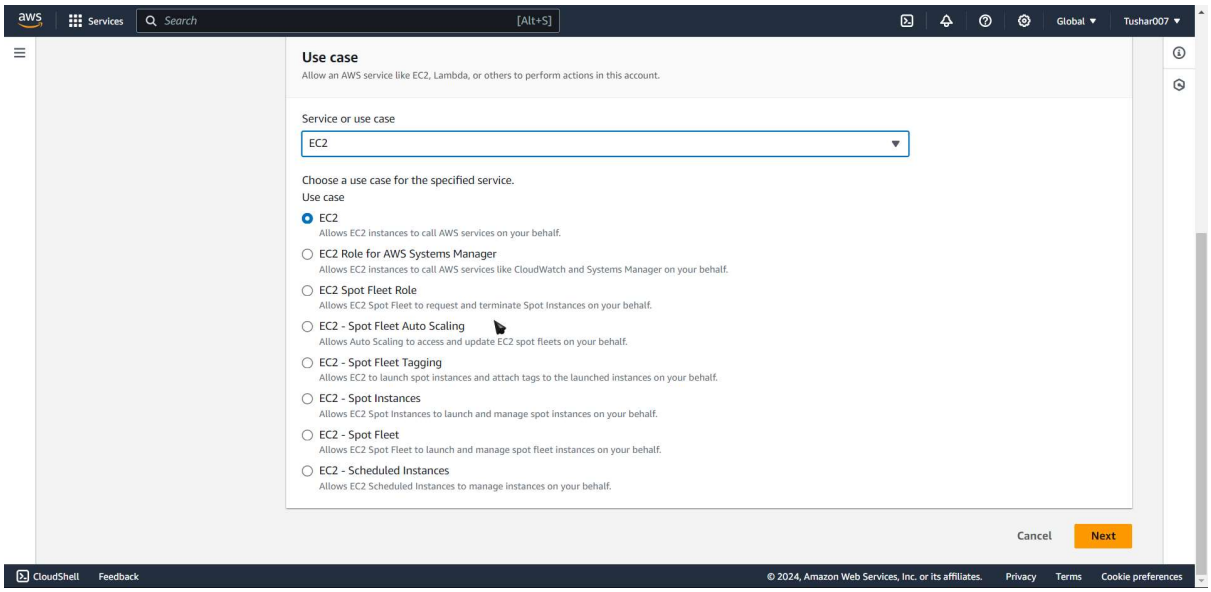
- Selected “elastic beanstalk” option in Use case:

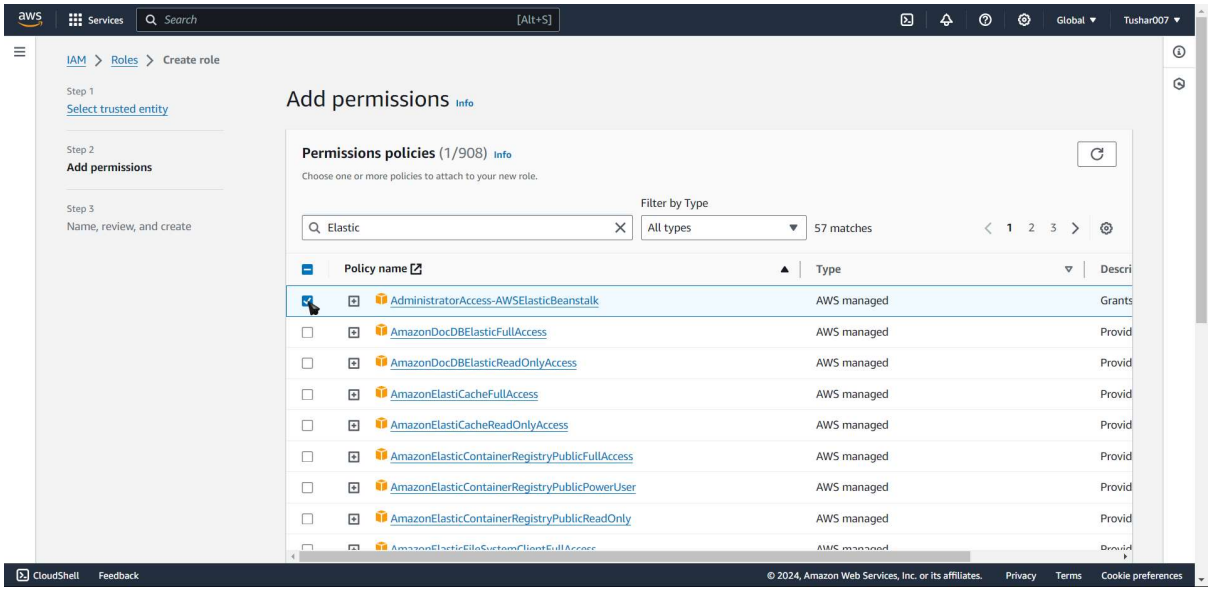


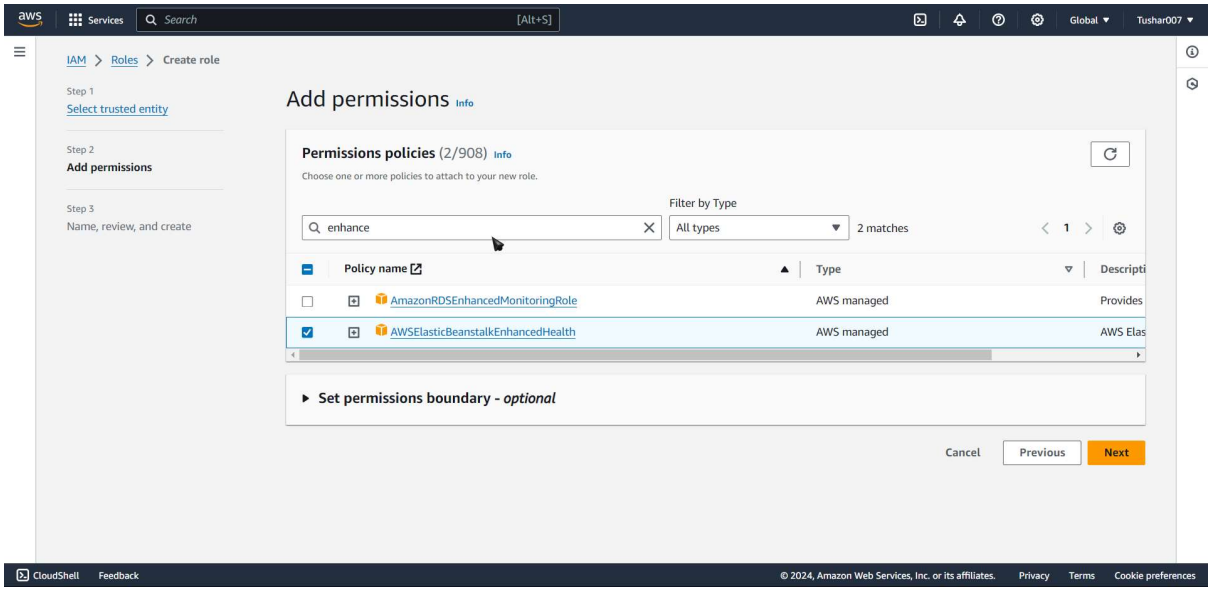
- Gave name to the role and created the role:

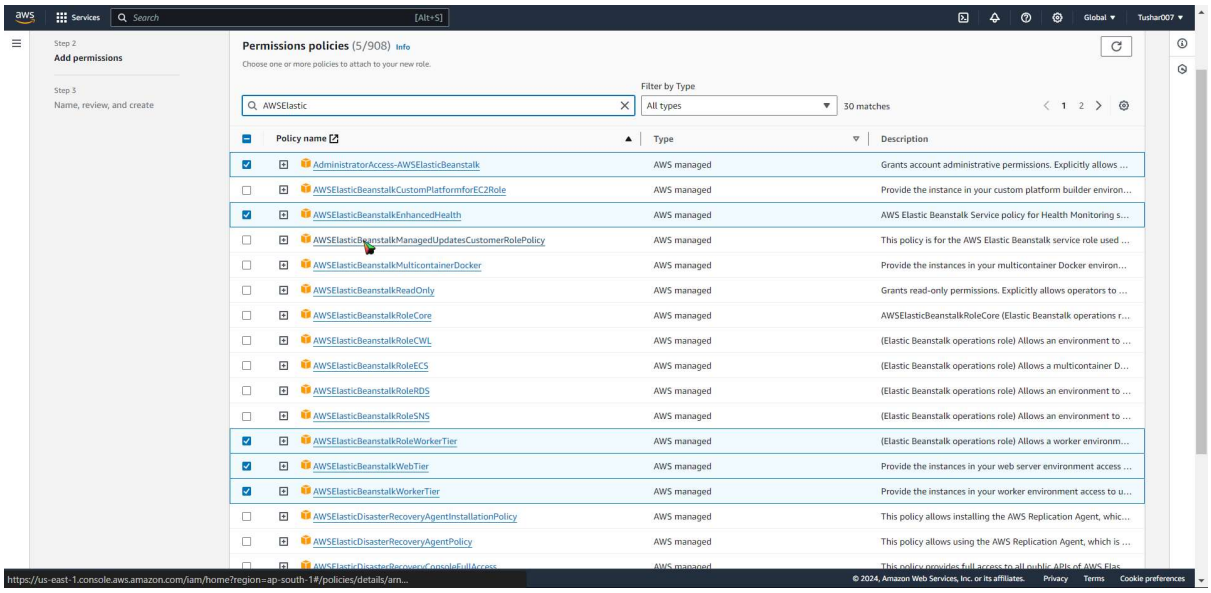


- Now creating another role of EC2 and then added the policies. Added five policies(open duplicate tab again then create new role as EC2) :

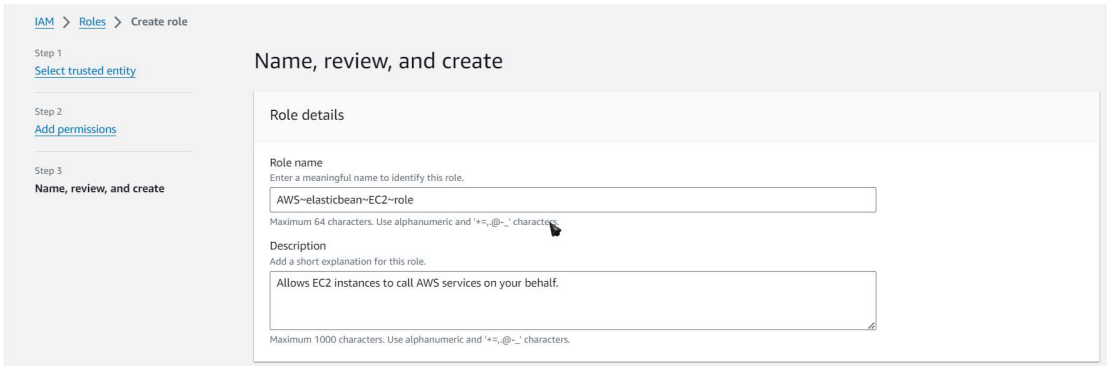




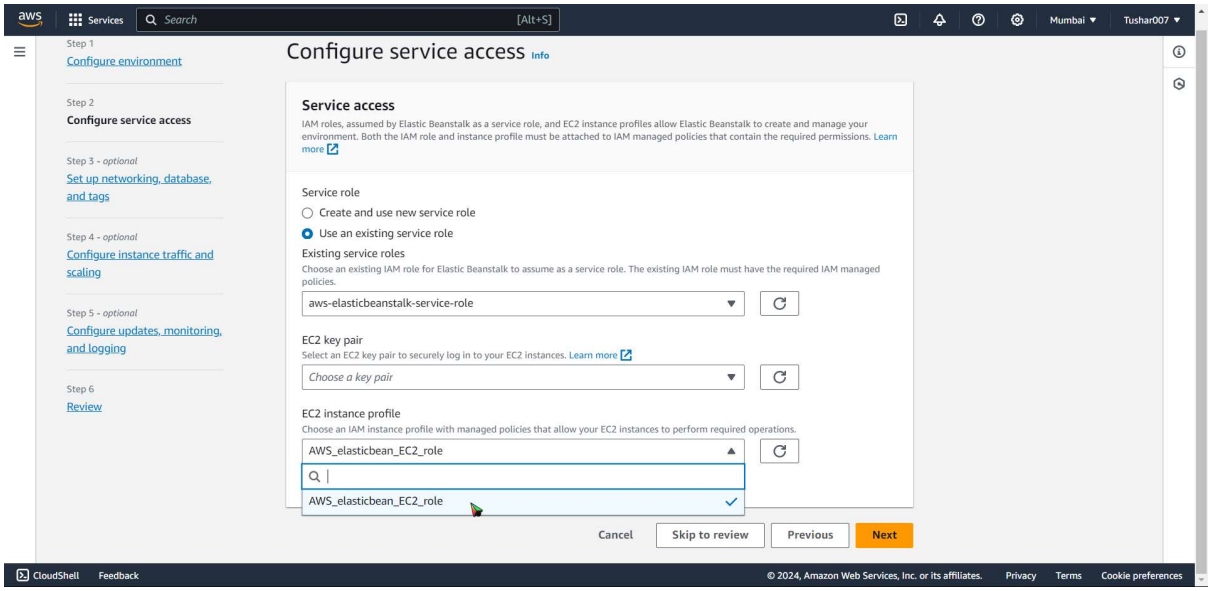




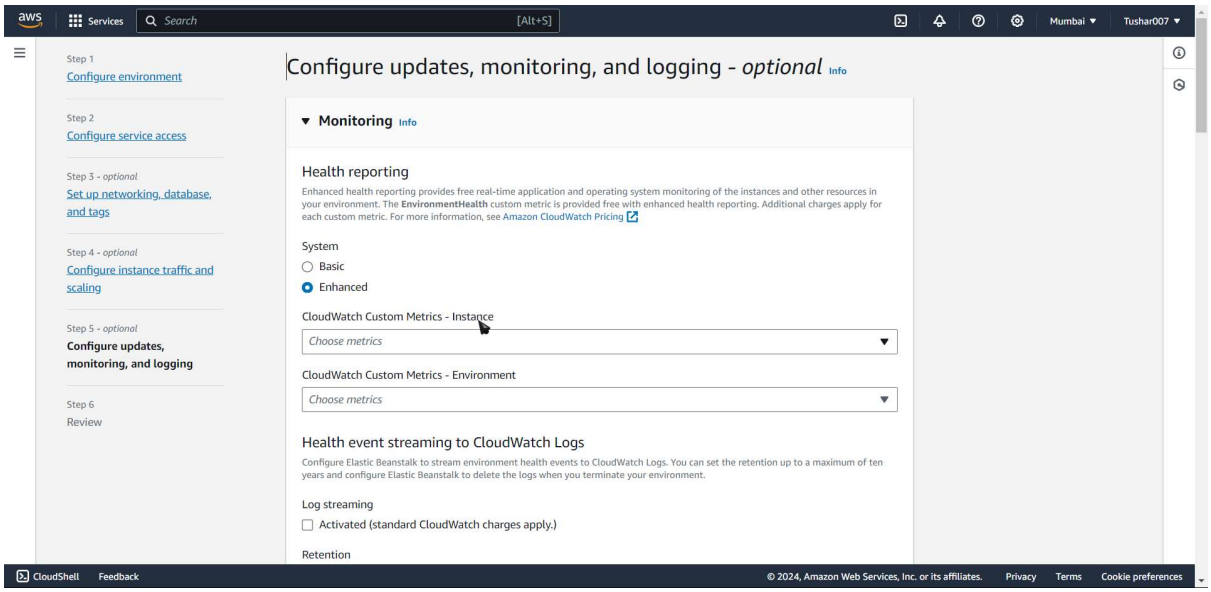
- Gave name and created the role :

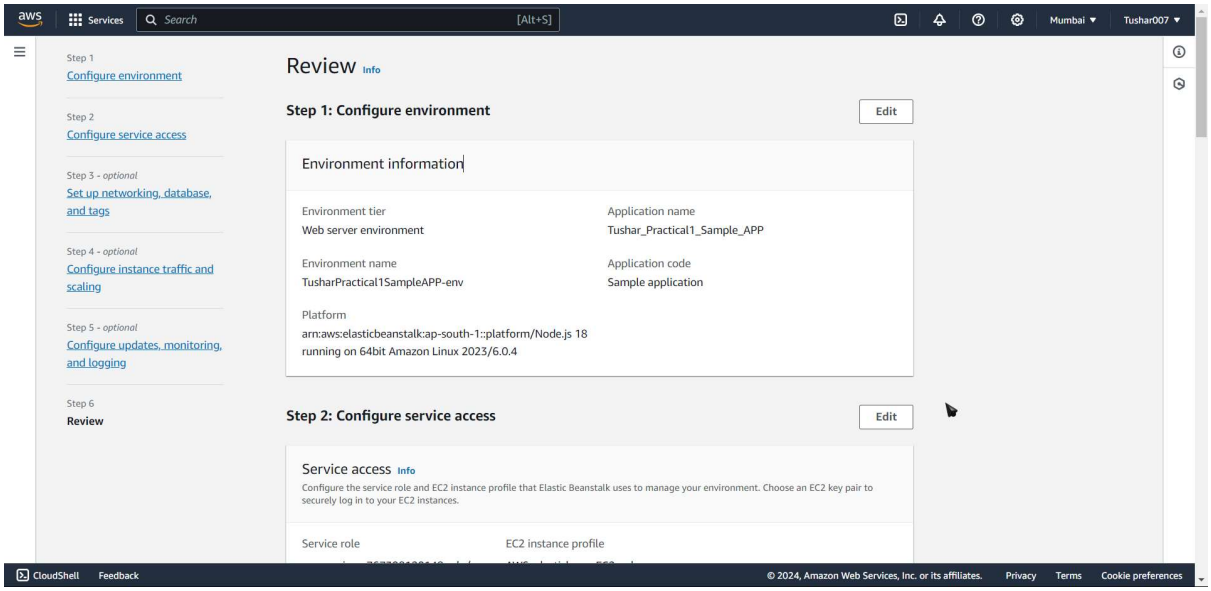


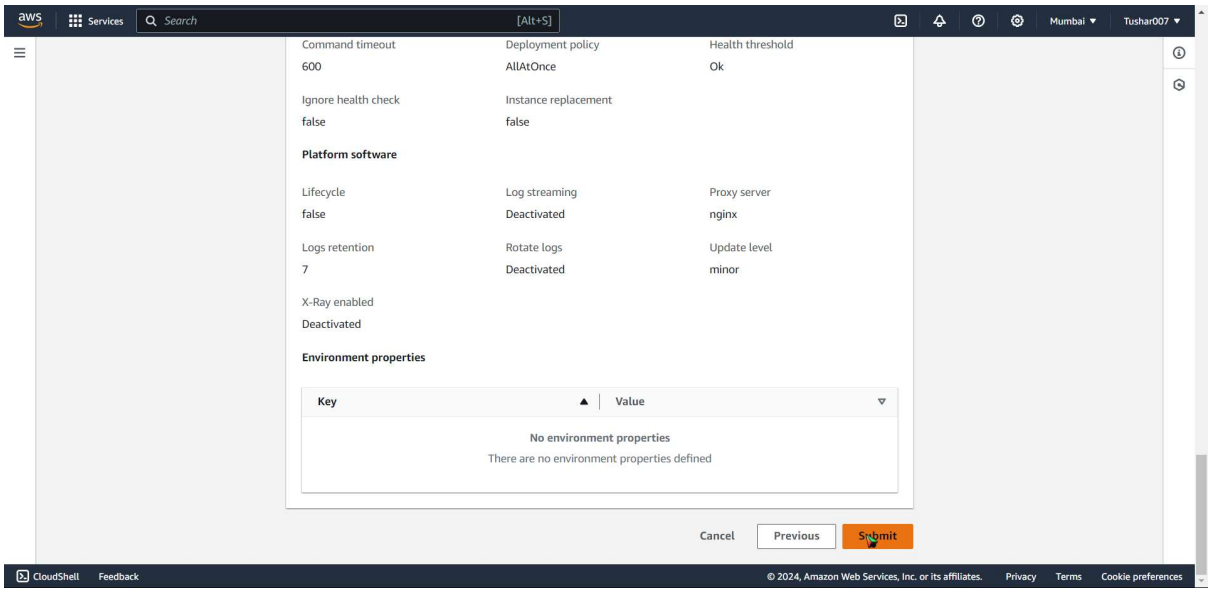
- Then again go to main console where we were progressing first, then select the role named “AWS-elasticbeans-EC2-role” and click next :



- Then don't modify "setup networking, database and tags" , next tab that i.e "configure instance traffic and scaling" , as well as next tab "configure updates, monitoring and logging" .
- Then finally reviewed all the settings and then clicked submit button.




aws
Services
Search
[Alt+S]
Mumbai
Tushar007
Step 1
Configure environment
Step 2
Configure service access
Step 3 - optional
Set up networking, database, and tags
Step 4 - optional
Configure instance traffic and scaling
Step 5 - optional
Configure updates, monitoring, and logging
Step 6
Review
Review Info
Step 1: Configure environment
Edit
Environment information
Environment tier
Web server environment
Application name
Tushar_Practical1_Sample_APP
Environment name
TusharPractical1SampleAPP-env
Application code
Sample application
Platform
arn:aws:elasticbeanstalk:ap-south-1::platform/Node.js 18 running on 64bit Amazon Linux 2023/6.0.4
Step 2: Configure service access
Edit
Service access Info
Configure the service role and EC2 instance profile that Elastic Beanstalk uses to manage your environment. Choose an EC2 key pair to securely log in to your EC2 instances.
Service role
EC2 instance profile
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences


aws
Services
Search
[Alt+S]
Mumbai
Tushar007
Command timeout
600
Deployment policy
AllAtOnce
Health threshold
Ok
Ignore health check
false
Instance replacement
false
Platform software
Lifecycle
false
Log streaming
Deactivated
Proxy server
nginx
Logs retention
7
Rotate logs
Deactivated
Update level
minor
X-Ray enabled
Deactivated
Environment properties
Key
Value
No environment properties
There are no environment properties defined
Cancel
Previous
Submit
CloudShell
Feedback
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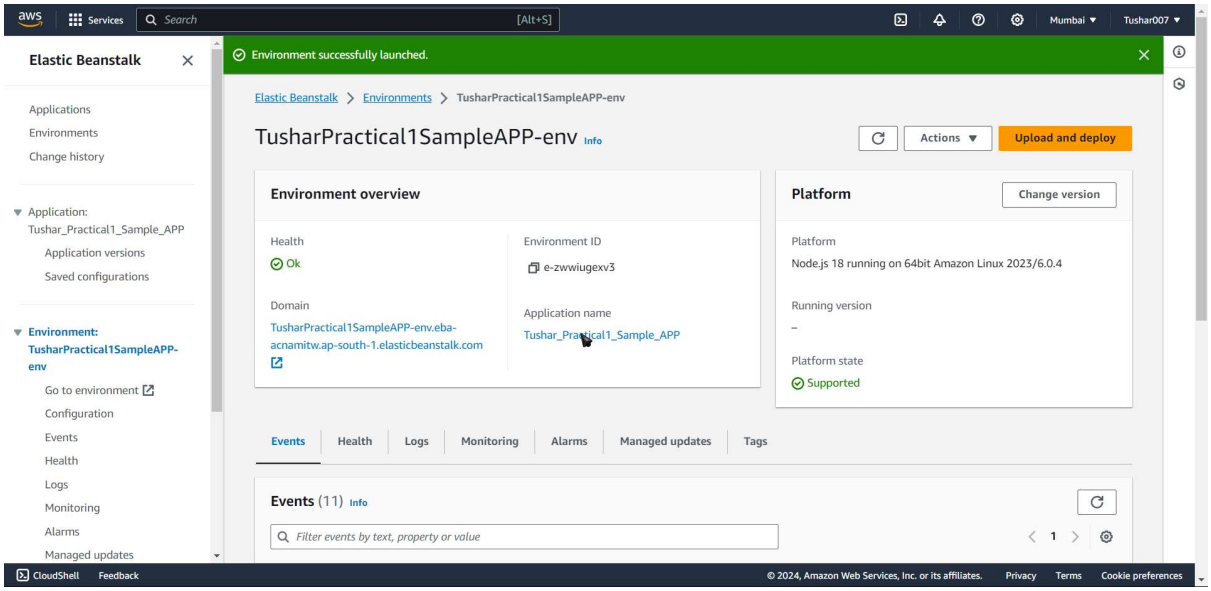
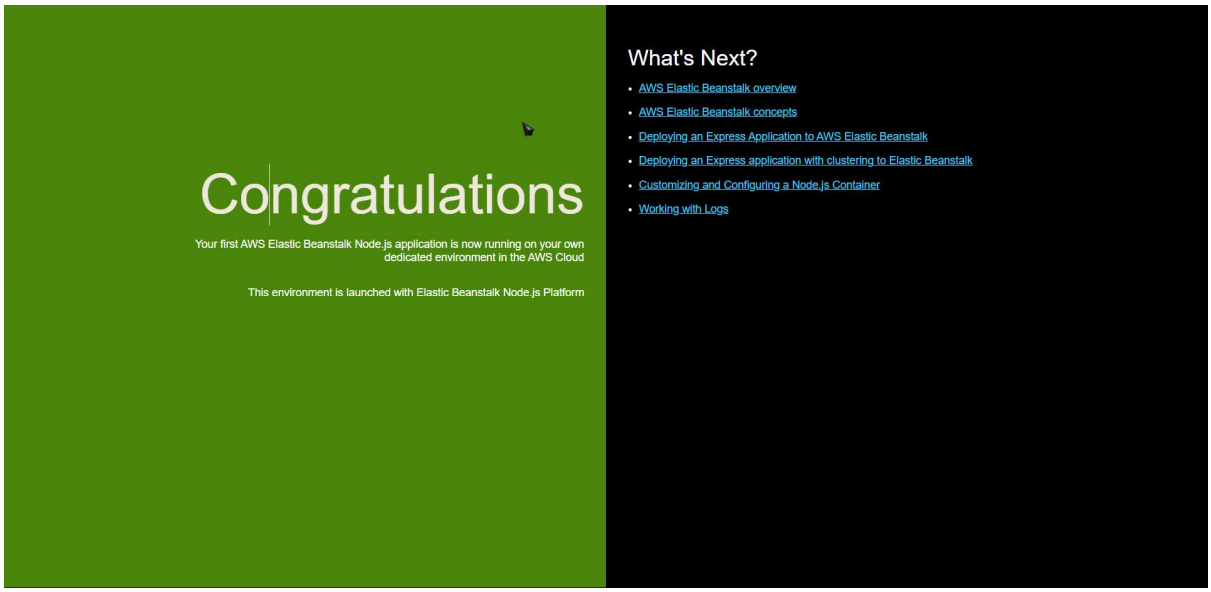
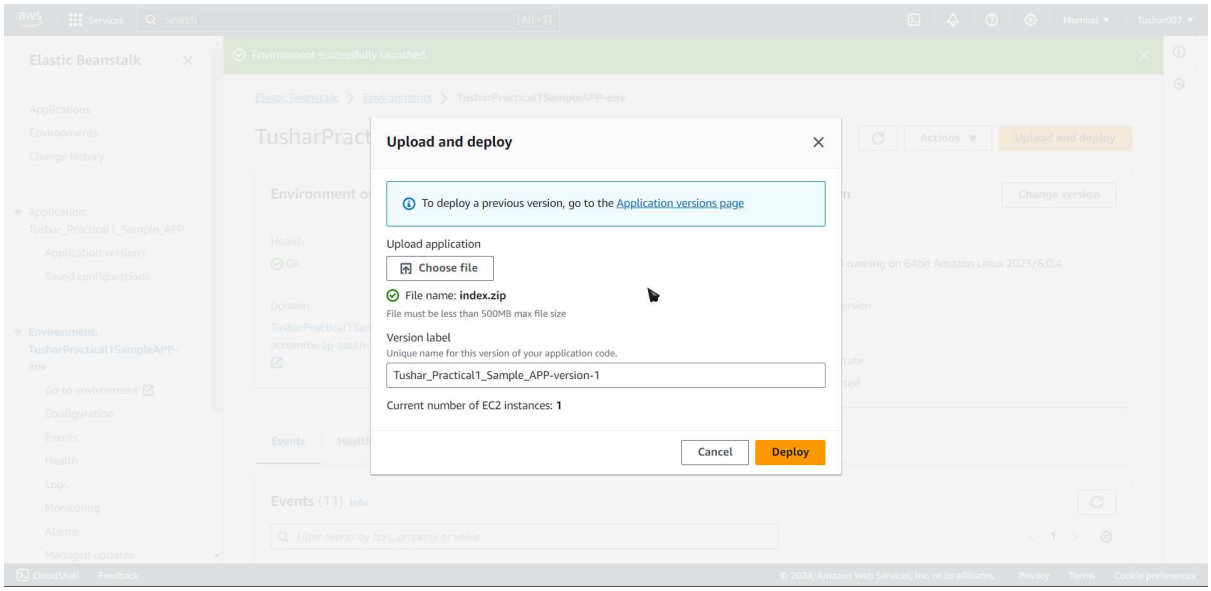
Privacy
Terms
Cookie preferences

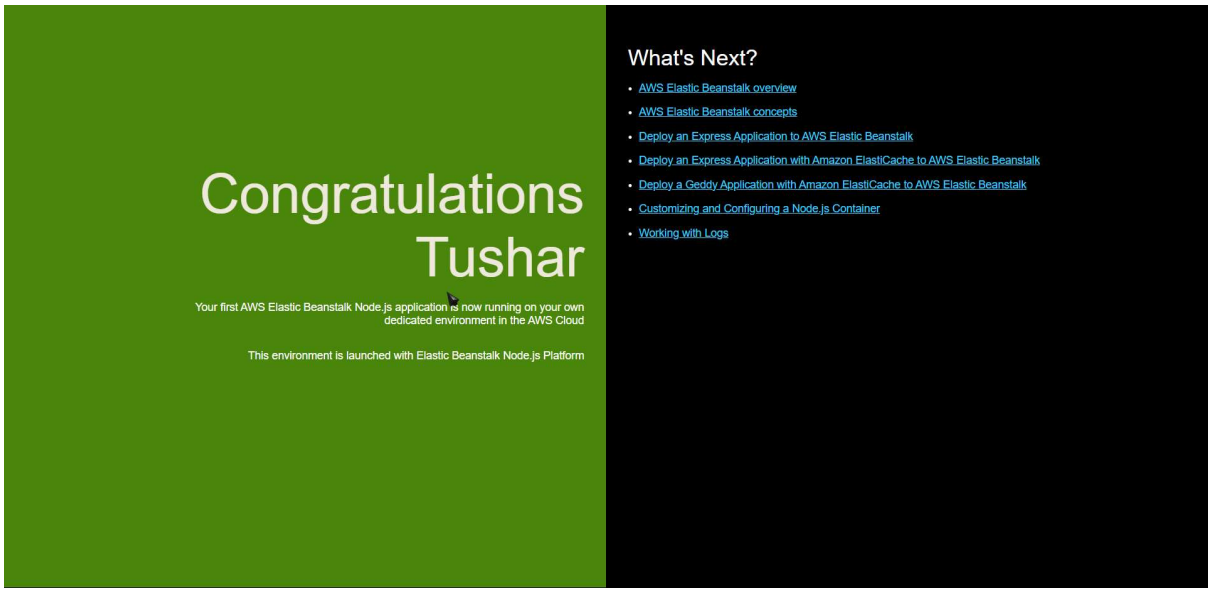
➢ Finally we have created the sample application.





- After that i modified the html file and again deployed and uploaded in the instance again. Here's the output of same:

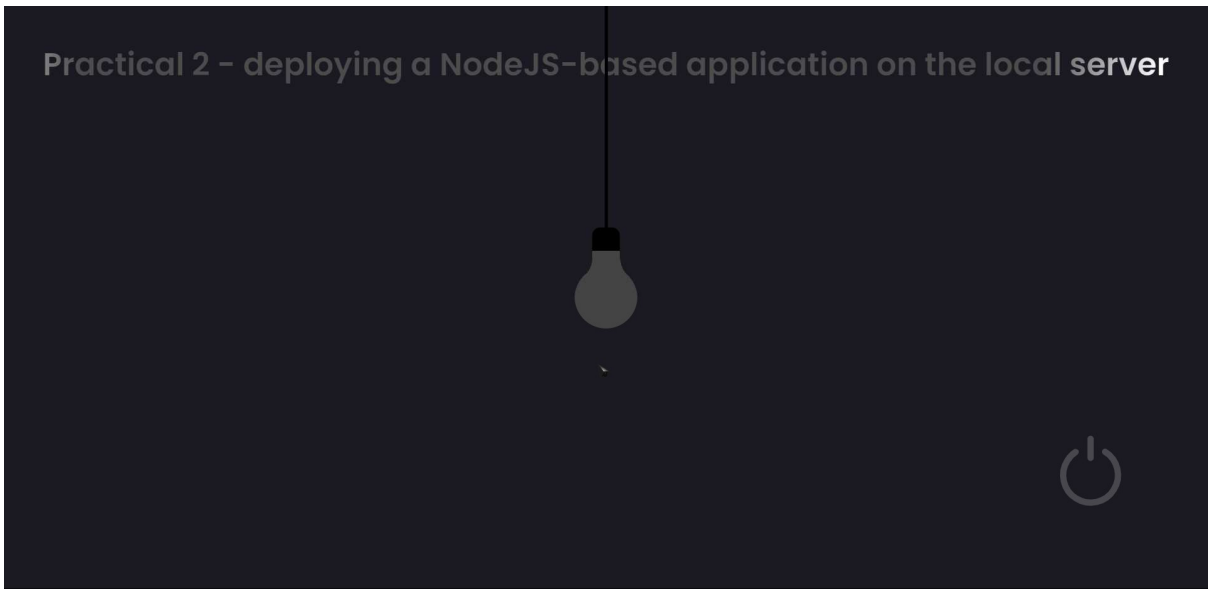




1.1: Developing :

NodeJS application to create any website GUI (use HTML, CSS, JavaScript) using AWS Cloud and AWS Elastic beanstalk Sample GUI should contain two buttons, with one button to turn ON the bulb provided in the user interface and a second button to turn OFF the bulb. :

- **I already have files of this practical so I will create zip file of it and then I created new application for it as by following sample application's steps .**
- **Output :**



Domain Link :

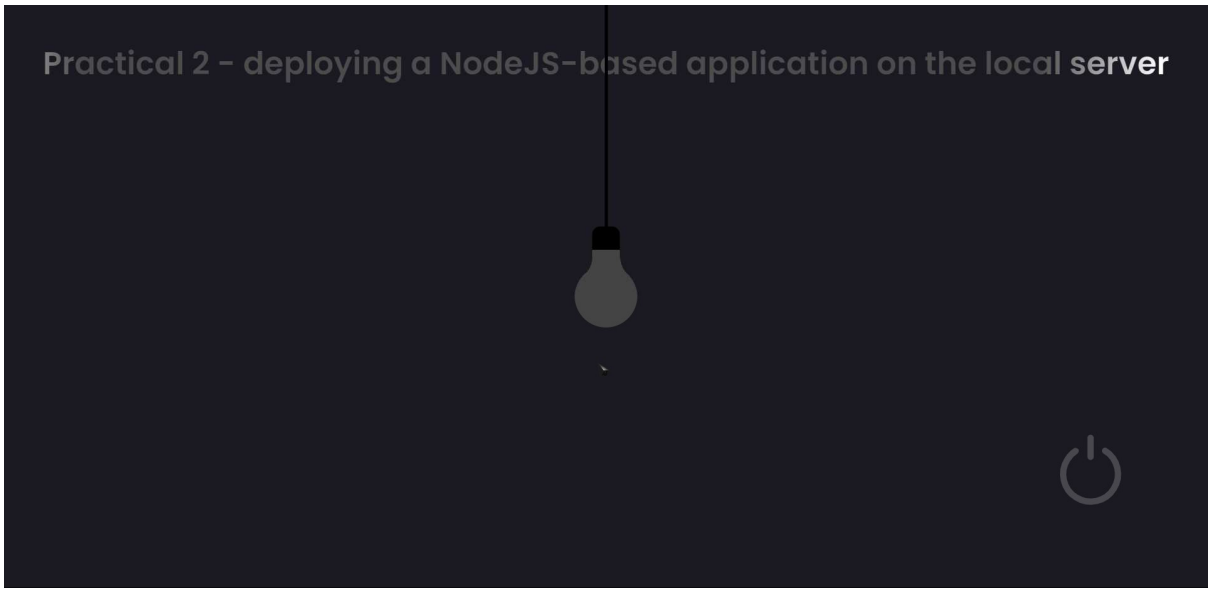
http://tusharp1new-env.eba-7pft22fz.ap-south-1.elasticbeanstalk.com/

1.2: Developing NodeJS :

application to create website GUI (use HTML, CSS, JavaScript) using AWS Cloud and AWS Elastic Beanstalk to Click on the light bulb to turn on/off the light :

- **I already have files of this practical so I will create zip file of it and then I created new application for it as by following sample application's steps .**

- **Output :**



Domain Link :

http://tusharp1new-env.eba-7pft22fz.ap-south-1.elasticbeanstalk.com/

1.3 Develop HTTP Module :

World NodeJS application on the AWS Cloud using the HTTP module create your module and include it in the NodeJS application to print the current date and time:

- **I already have files of this practical so I will create zip file of it and then I created new application for it as by following sample application's steps .**
- **Output :**

- **Domain Link :**

http://tusharpractical1task3-env.eba-m83erkgd.ap-south-1.elasticbeanstalk.com/

Here’s the screenshot of all the applications running on different instances: