# Andhra Pradesh State Skill Development Corporation

Skill AP
APSSDC



# AWS CLOUD COMPUTING

## CONFIGURATION OF ELASTIC BEANSTALK WITH TOMCAT APPLICATION

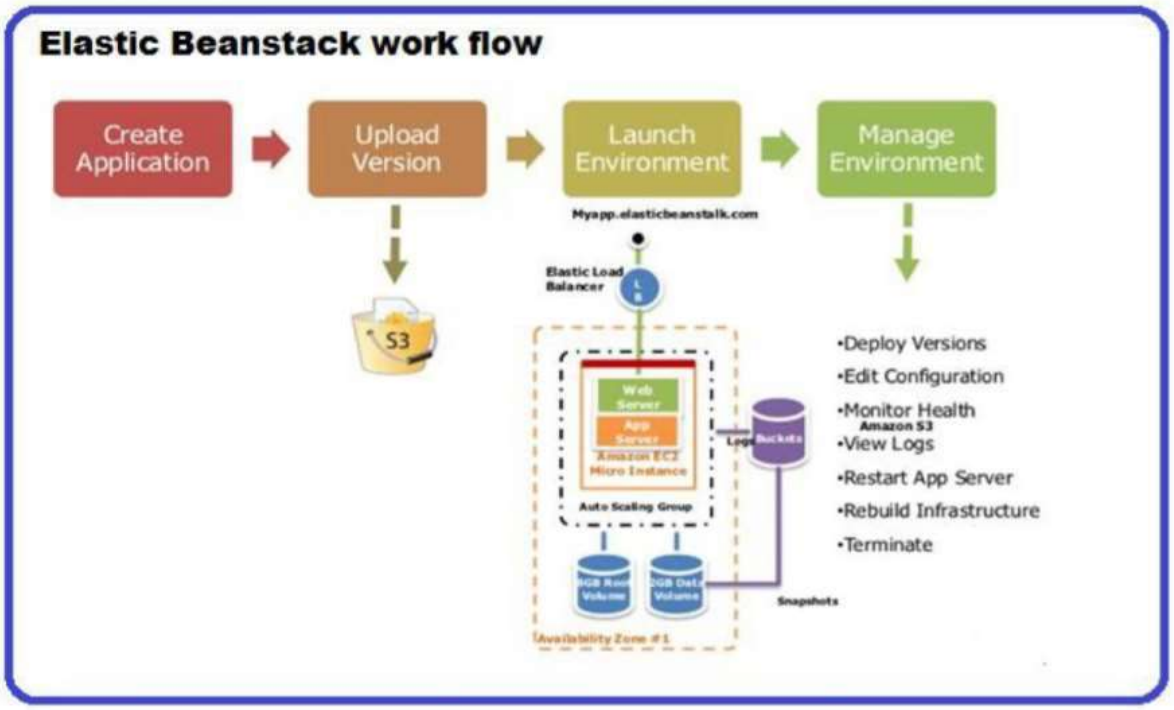
# Configuration of Elastic Beanstalk with Tomcat Application

## Elastic Beanstalk

AWS Elastic Beanstalk is a compute service which makes it easier for the developers to quickly deploy and manage applications which you upload to the AWS cloud. Developers simply upload their application to the AWS cloud, and then let the AWS Beanstalk provision and handle the configuration for you. Your application will be provided with capacity provisioning, load balancing, auto-scaling, and health monitoring.

## Elastic Beanstalk Workflow

Before using Amazon elastic beanstalk service, you have to create a local application of any platform. It can be Python, PHP, Node.js, etc. After that you have to create an application in Elastic Beanstalk with an environment where you can upload your local application. Then you deploy it and use the URL provided for it to launch it. There are no costs applied for Elastic Beanstalk in AWS separately, you only pay for the only resources you use to run your application like for storage you use Amazon S3. Also, the cost is not fixed, it can vary with the number of EC2 instances, size of the S3 bucket, and the configuration of the database instances.



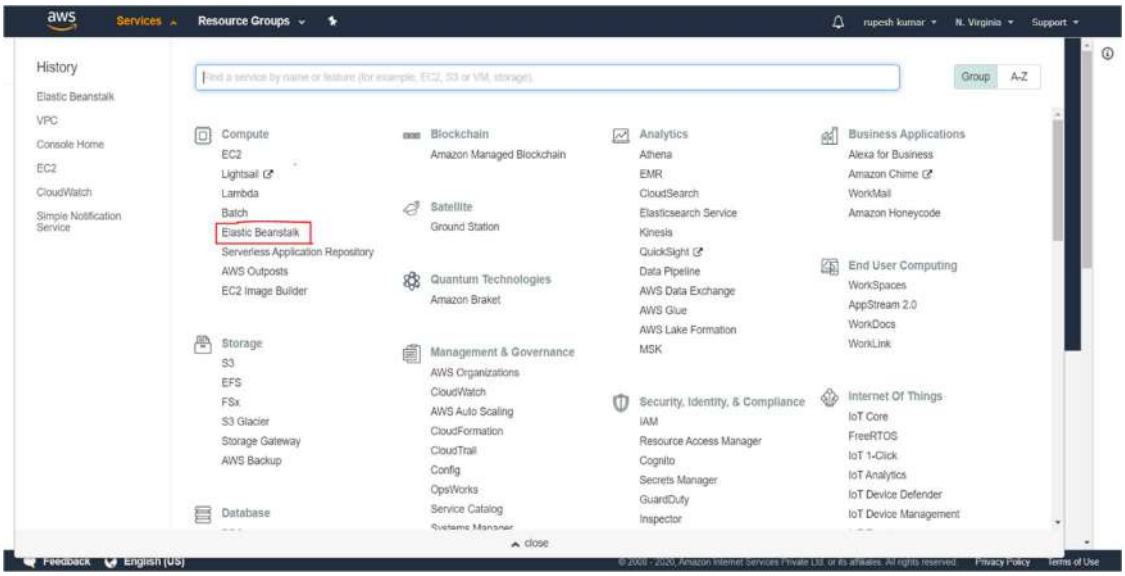
## Benefits:

Elastic Beanstalk provides the user with several benefits and they are:

- Developer productivity
- Customization
- Cost-effective
- Management and updates
- Automatic application health monitoring
- Easy to get started
- Complete resource control

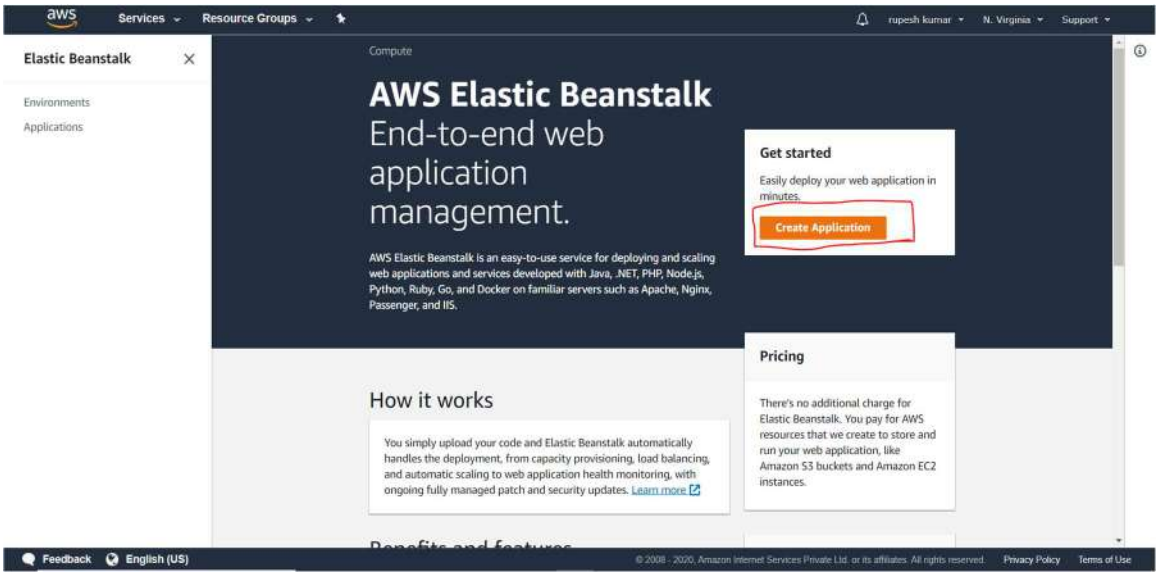
## To create Elastic Beanstalk Application

Open **AWS** Console
Select **compute** services → Click on **"Elastic Beanstalk"**

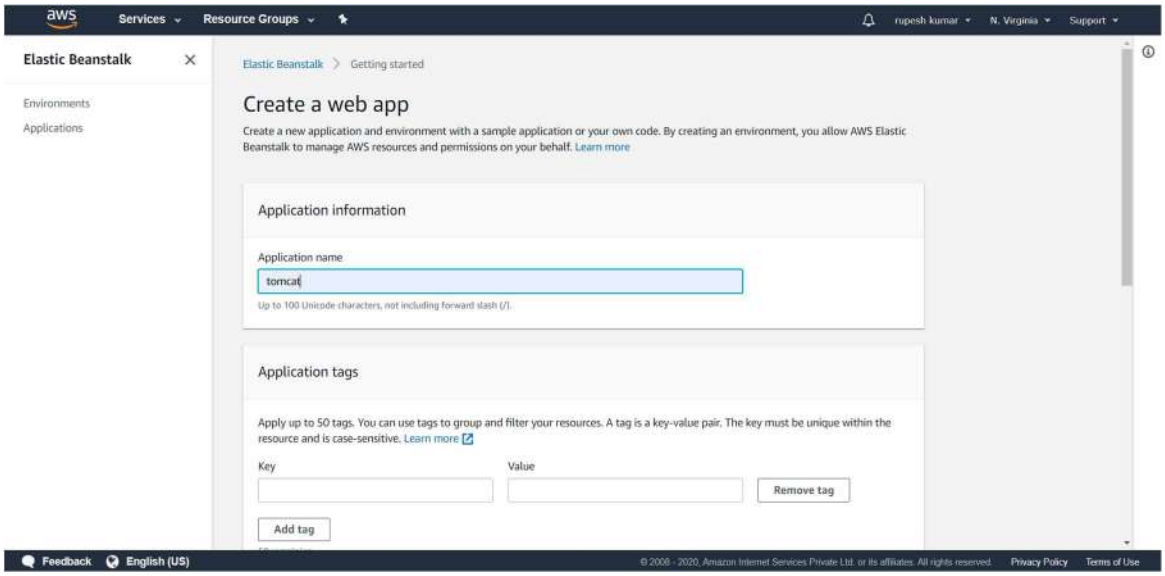



After selecting the Elastic Beanstalk from the services console, the aws Elastic Beanstalk console was opened.

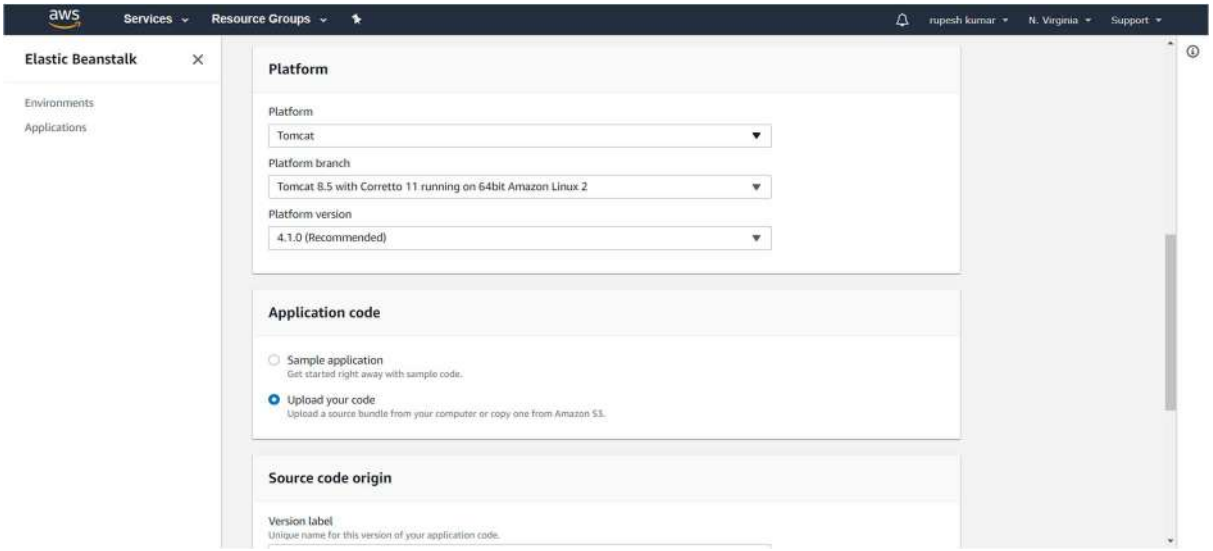
Click on "**Create Application**" to get started.



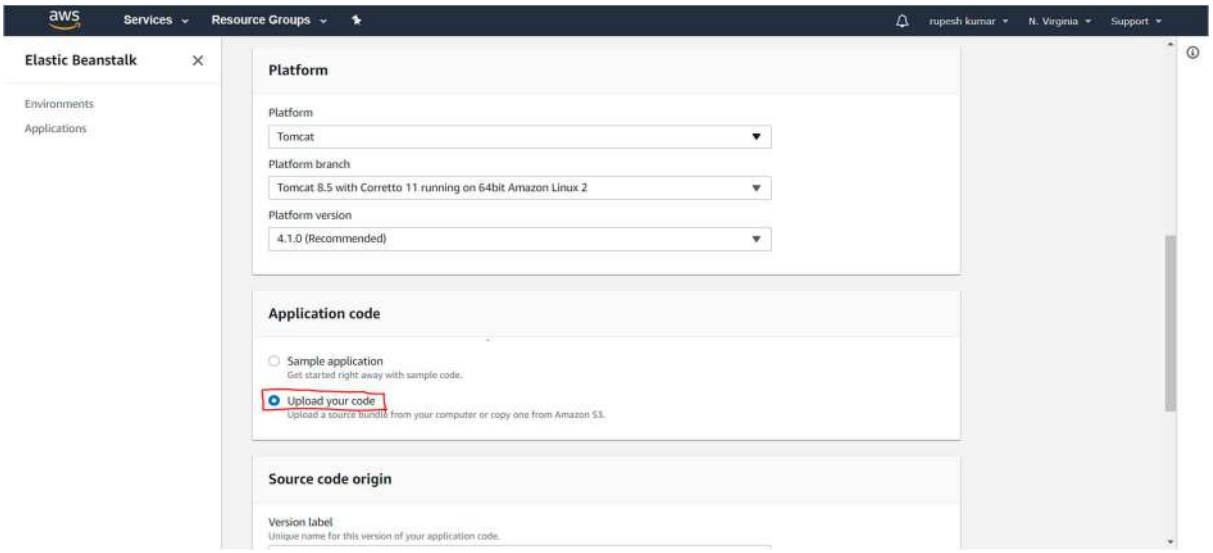

When you are clicking on the "Create Application", Create a web app page was opened. Then give all the details related to the application.
Application Name → tomcat
Application tags are optional



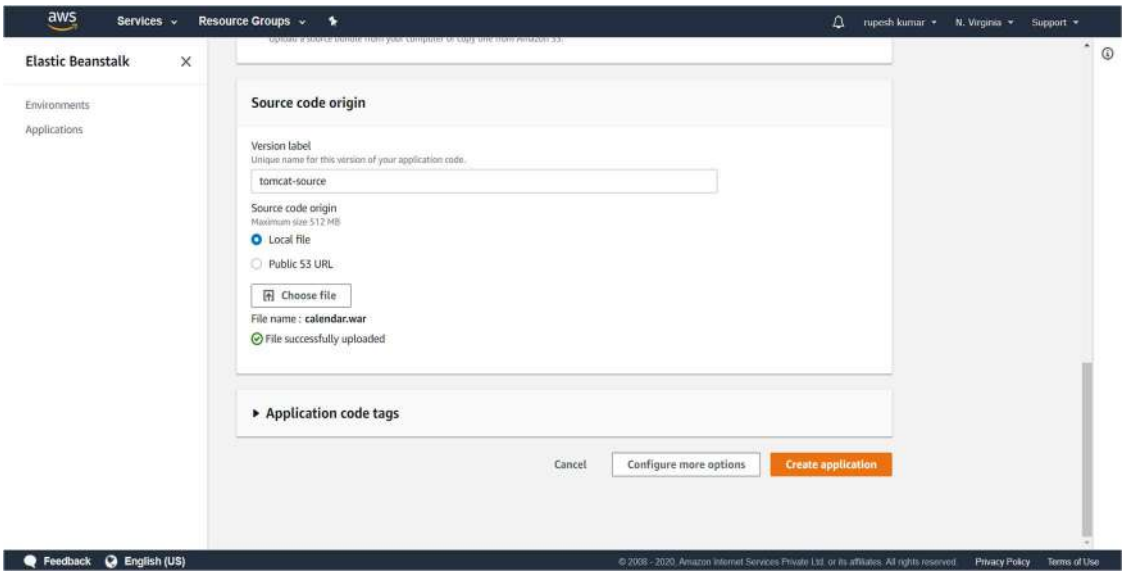
In the platform details:
Platform → Tomcat
Platform branch → Tomcat 8.5 with Corretto 11 running on 64bit Amazon Linux2
Platform version → 4.1.0 (recommended)



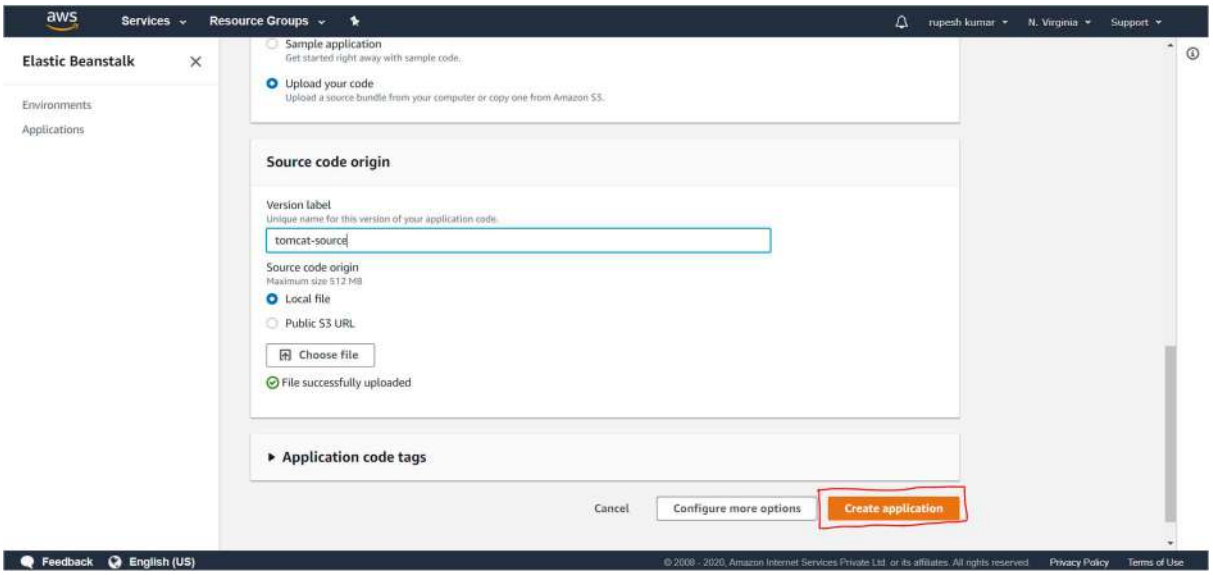

In the Application Code details select the option as "**Upload your code**"



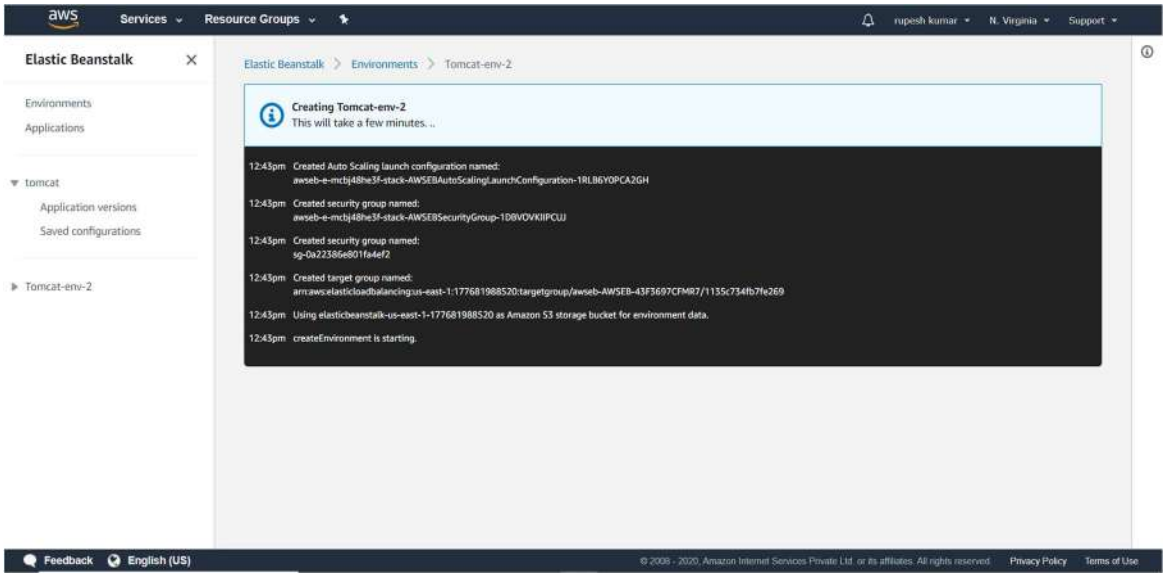
In the source code origin details:
Version label → tomcat-source (give unique name)
Source code origin: Select local file or you can upload your own source code from S3 service as well.
Upload any source code for the web application requirement. (in this case a sample calendar.war file was uploaded).



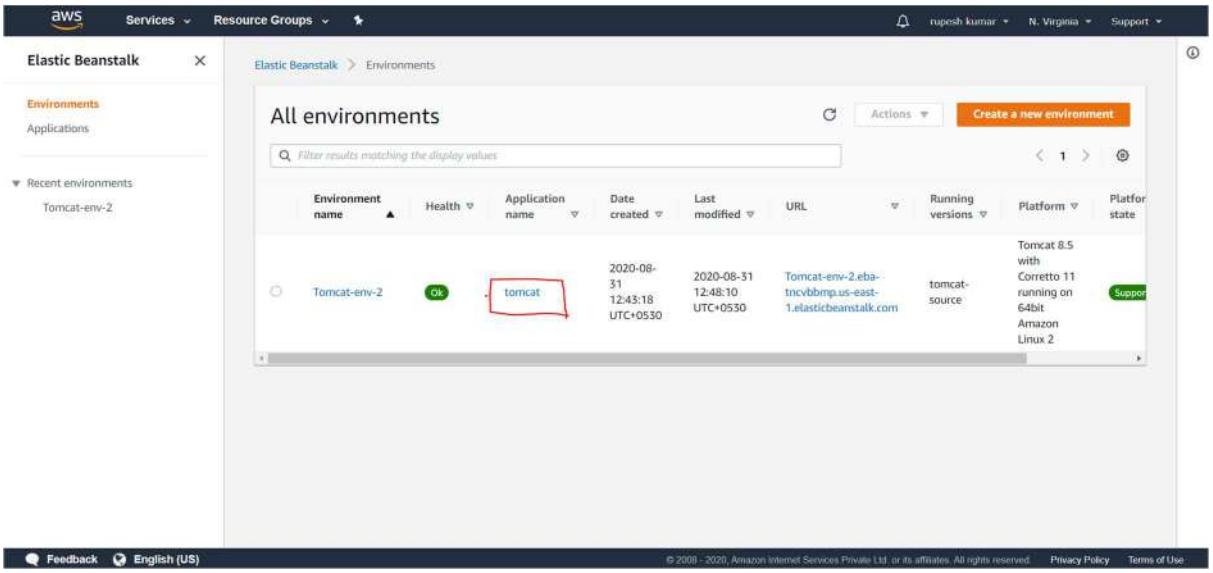

Application code tags are optional.
Click on "**Create application**" to create the tom cat application.



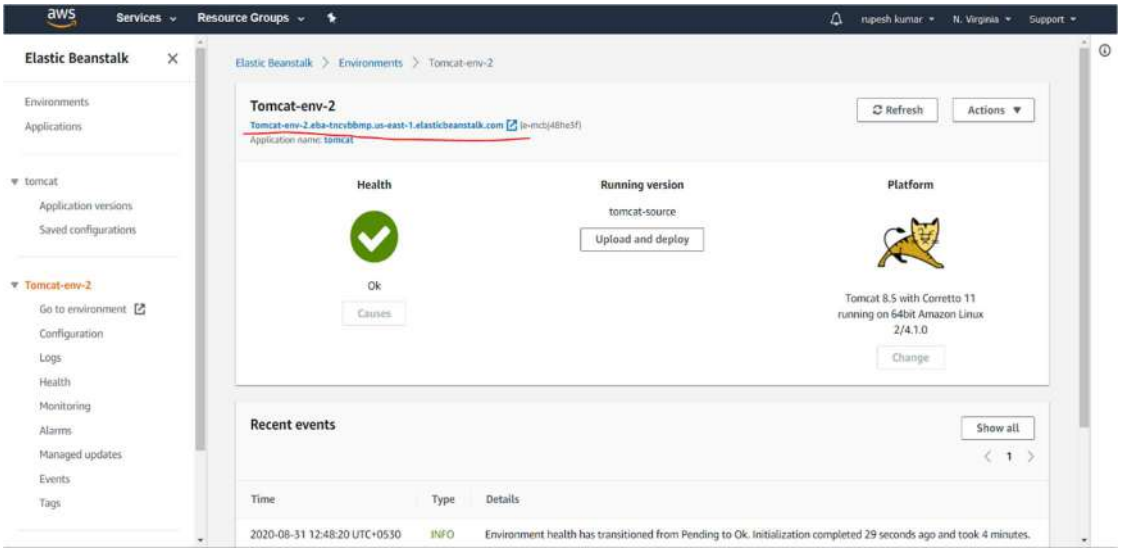
Tomcat application at background is getting created,
Progress on screen are displayed




It will take several minutes to create the tomcat application
Wait until the Tomcat screen is displayed on the screen

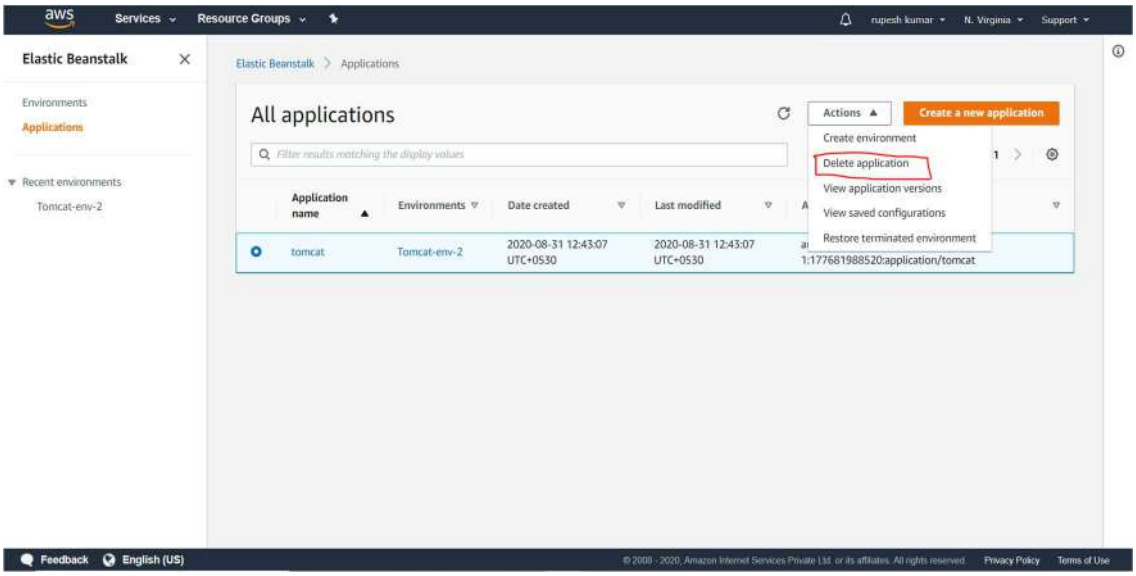


Now Click on the environment Name, it will redirect to the Tomcat environment homepage. To check the application, click on the URL provided in the page.

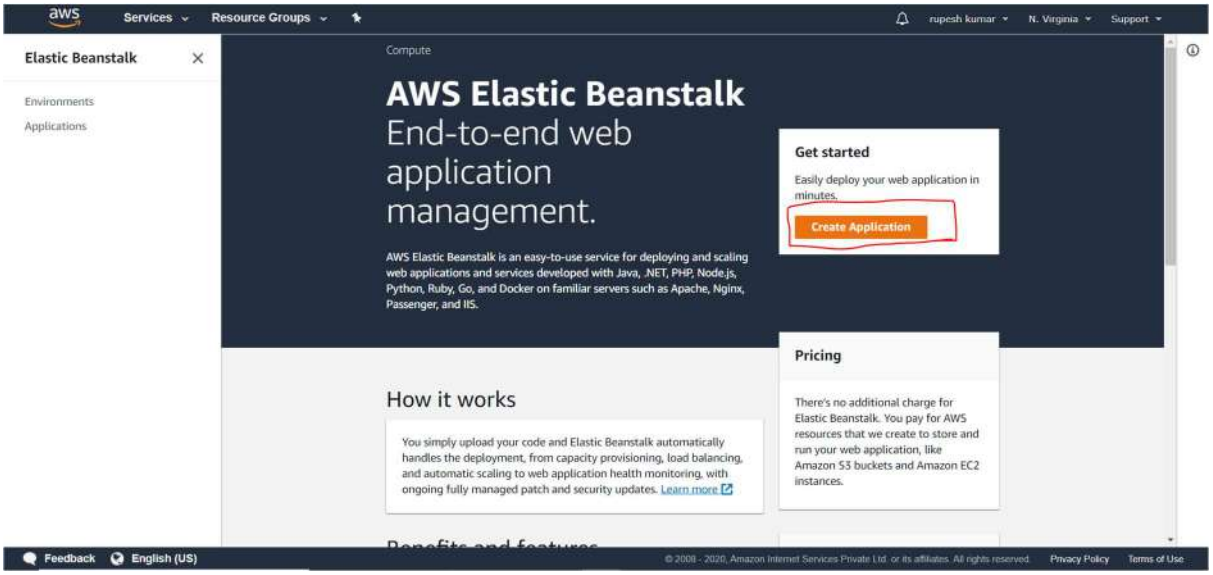



Open the url in the web browser it will gives the output page related to the content of the uploaded file (in this case calender.war file).

To remove Elastic Beanstalk
Select the **Action** button
Click **Delete Application**

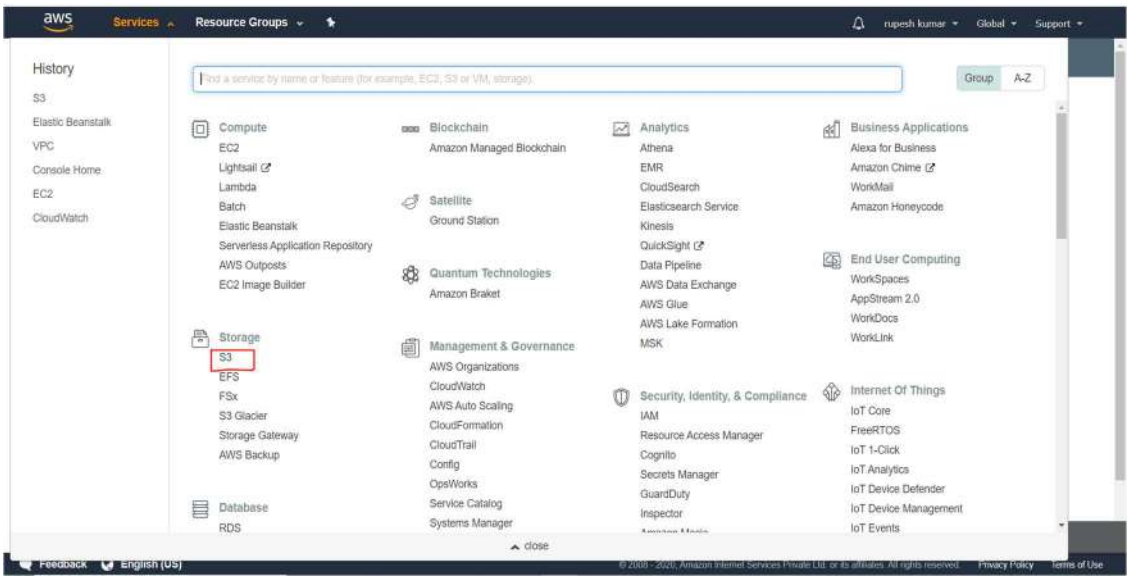



Application was Terminated
After Termination the Elastic Beanstalk home page was opened.

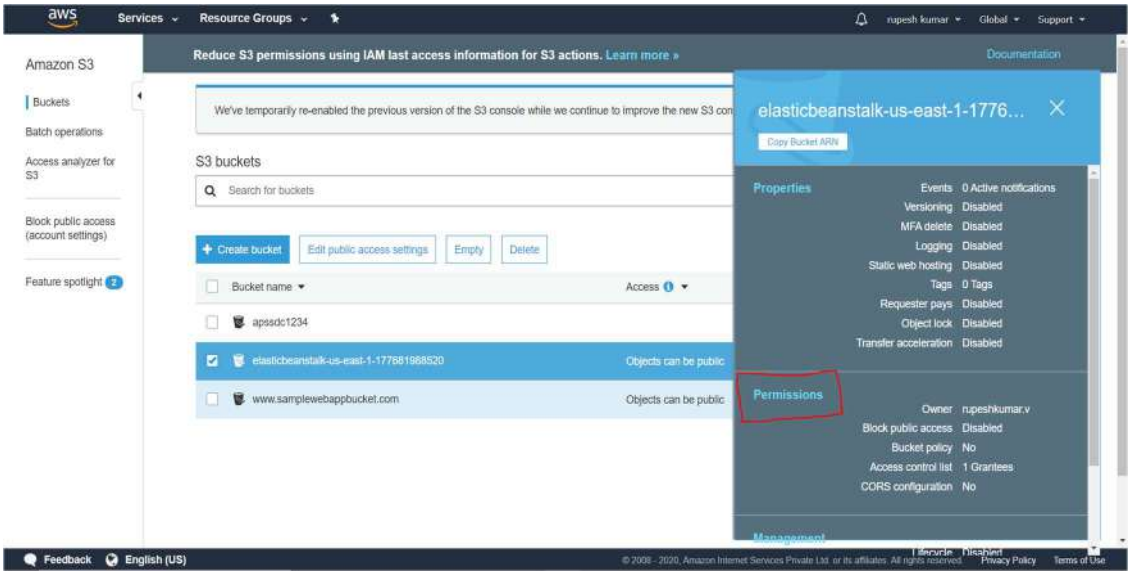


## To Delete Elastic Beanstalk bucket policy is created in S3 bucket

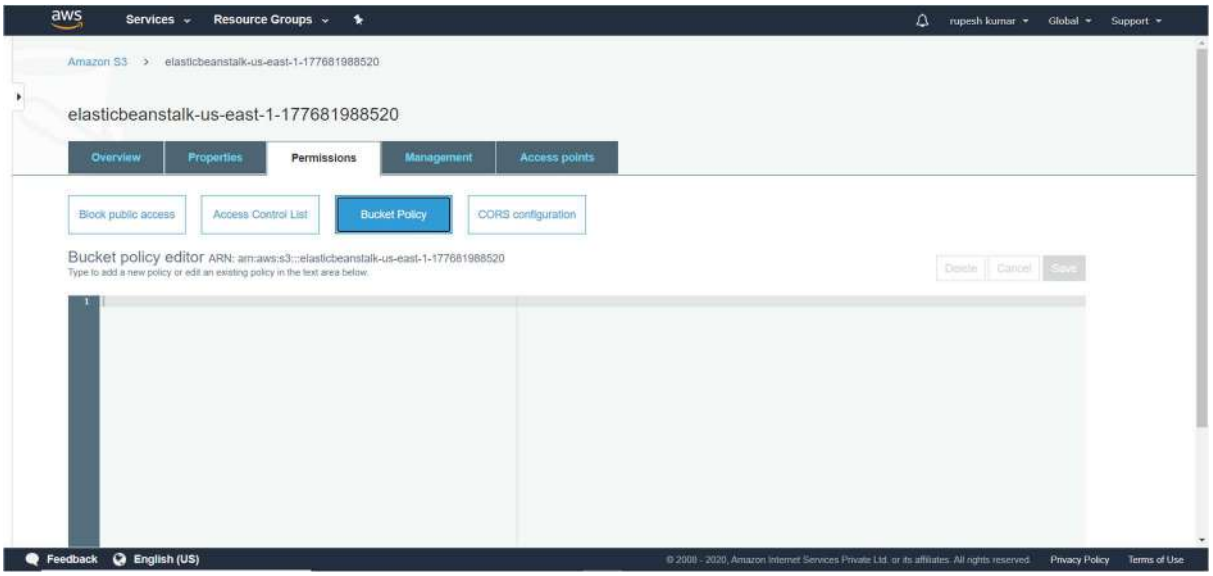
After creation of the application, Amazon S3 bucket was created related to the application.
S3 bucket created by Elastic Beanstalk is not deleted automatically.
It could be charged, so manually delete the Beanstalk Bucket.
From Console select “storage”
Select S3




Select Elastic Beanstalk Bucket and click permissions.
Select Bucket Policy



Select Bucket policy and delete bucket policy




Now the bucket was deleted successfully.