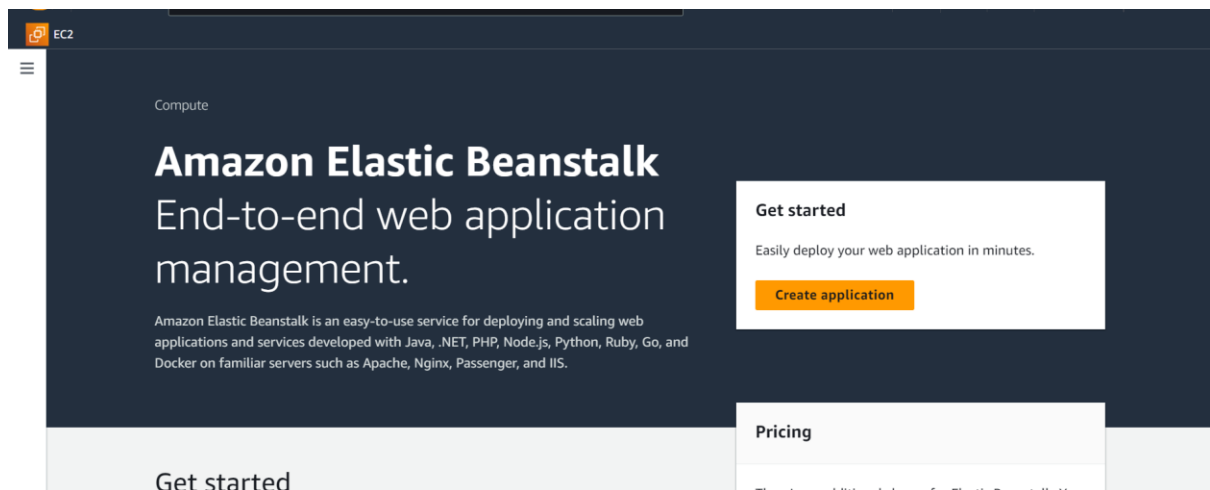


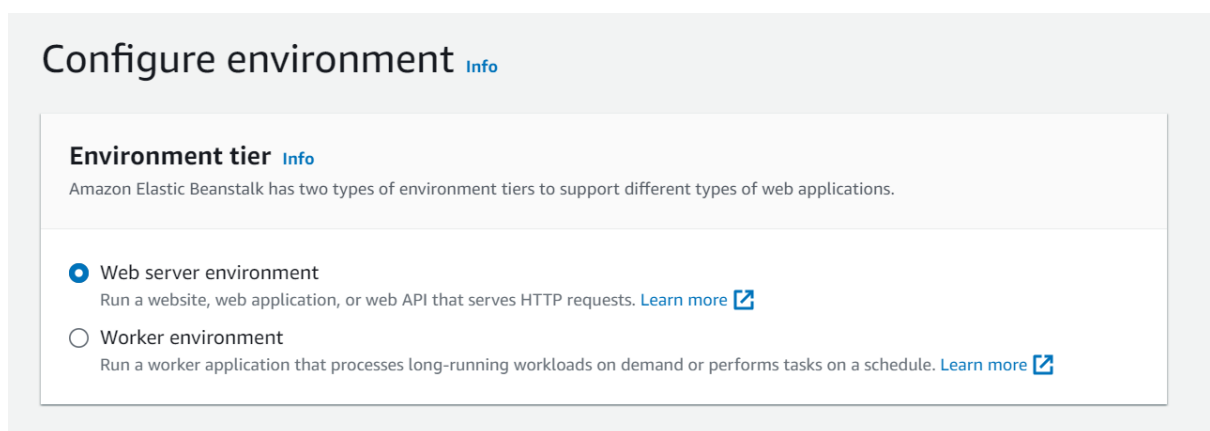
Elastic Beanstalk Environment Configuration

An AWS Elastic Beanstalk environment is a collection of AWS resources running an application version. You can deploy multiple environments when you need to run multiple versions of an application. For example, you might have development, integration, and production environments.

Create an application



Choose an environment tier



Name it as 'Test'

Application information [Info](#)

Application name

Maximum length of 100 characters.

► Application tags (optional)

Environment information [Info](#)

Choose the name, subdomain and description for your environment. These cannot be changed later.

Environment name

Must be from 4 to 40 characters in length. The name can contain only letters, numbers, and hyphens. It can't start or end with a hyphen. This name must be unique within a region in your account.

Domain

.ap-south-1.elasticbeanstalk.com


[Check availability](#)

Environment description

Choose any platform

Platform [Info](#)

Platform type

☒ **Managed platform**
Platforms published and maintained by Amazon Elastic Beanstalk. [Learn more](#) 

☐ **Custom platform**
Platforms created and owned by you. This option is unavailable if you have no platforms.

Platform

Python ▼

Platform branch

Python 3.11 running on 64bit Amazon Linux 2023 ▼

Platform version

4.0.4 (Recommended) ▼

Create a sample application

Application code [Info](#)

☒ **Sample application**

☐ **Existing version**
Application versions that you have uploaded.

☐ **Upload your code**
Upload a source bundle from your computer or copy one from Amazon S3.

Presets [Info](#)

Start from a preset that matches your use case or choose custom configuration to unset recommended values and use the service's default values.

Configuration presets

☒ **Single instance (free tier eligible)**

☐ Single instance (using spot instance)


☐ High availability

☐ High availability (using spot and on-demand instances)

The **Configure service access** page displays

Configure service access [Info](#)

Service access

IAM roles, assumed by Elastic Beanstalk as a service role, and EC2 instance profiles allow Elastic Beanstalk to create and manage your environment. Both the IAM role and instance profile must be attached to IAM managed policies that contain the required permissions. [Learn more](#) 

Service role

☒ Create and use new service role


☐ Use an existing service role


Service role name


Enter the name for an IAM role that Elastic Beanstalk will create to assume as a service role. Beanstalk will attach the required managed policies to it.

View permission details

EC2 key pair


Select an EC2 key pair to securely log in to your EC2 instances. [Learn more](#) 






EC2 instance profile

Choose an IAM instance profile with managed policies that allow your EC2 instances to perform required operations.





View permission details

Cancel

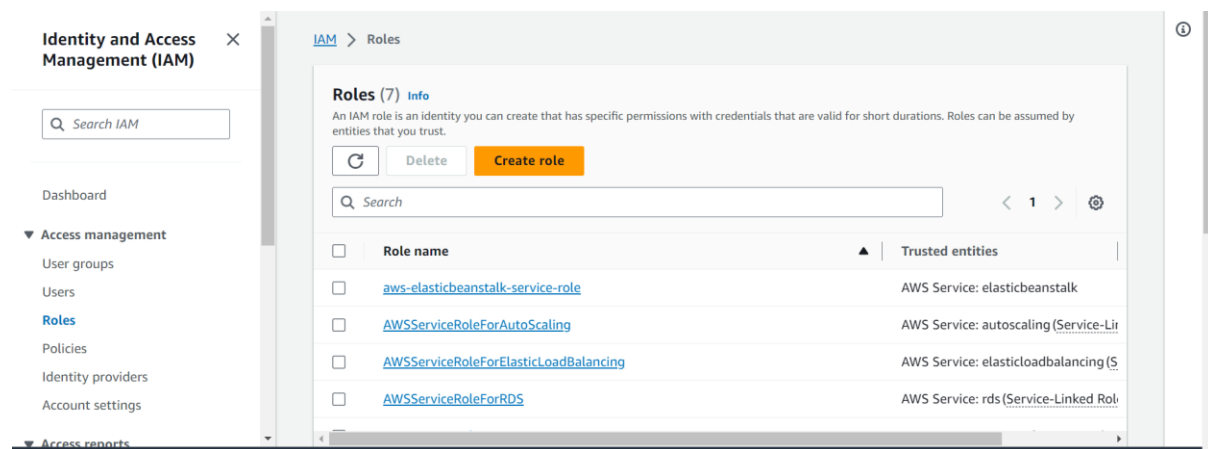
Skip to review

Previous

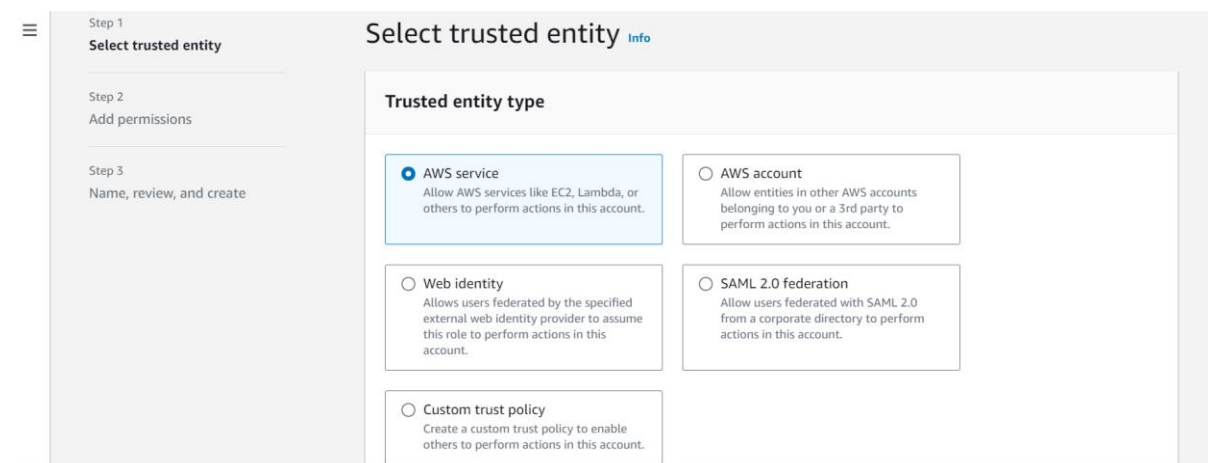
Next

Here we have to create a EC2 instance profile

So go to IAM roles and create a role



Select the entity type as 'AWS service'



Choose the User case as 'EC2'

Use case

Allow an AWS service like EC2, Lambda, or others to perform actions in this account.

Service or use case

EC2 ▼

Choose a use case for the specified service.

Use case

☒ EC2
Allows EC2 instances to call AWS services on your behalf.

☐ EC2 Role for AWS Systems Manager
Allows EC2 instances to call AWS services like CloudWatch and Systems Manager on your behalf.

☐ EC2 Spot Fleet Role
Allows EC2 Spot Fleet to request and terminate Spot Instances on your behalf.

☐ EC2 - Spot Fleet Auto Scaling
Allows Auto Scaling to access and update EC2 spot fleets on your behalf.

Name it as 'BeanStalk-ITFS'

Step 1
[Select trusted entity](#)

Step 2
[Add permissions](#)

Step 3
Name, review, and create

Name, review, and create

Role details

Role name
Enter a meaningful name to identify this role.

BeanStalk-ITFS

Maximum 64 characters. Use alphanumeric and '+', '@', '-' characters.

Description
Add a short explanation for this role.

Allows EC2 instances to call AWS services on your behalf.

Maximum 1000 characters. Use alphanumeric and '+', '@', '-' characters.

Step 1: Select trusted entities

Edit

Feedback

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Add these permissions

Step 2: Add permissions

Edit

Permissions policy summary

Policy name	Type	Attached as
AWSElasticBeanstalkMulticontainerDocker	AWS managed	Permissions policy
AWSElasticBeanstalkWebTier	AWS managed	Permissions policy
AWSElasticBeanstalkWorkerTier	AWS managed	Permissions policy

Our role has been created

BeanStalk-ITFS

Info

Delete

Allows EC2 instances to call AWS services on your behalf.

Summary

Edit

Creation date	ARN	Instance profile ARN
October 19, 2023, 21:43 (UTC+05:30)	arn:aws:iam::501061908457:role/BeanStalk-ITFS	arn:aws:iam::501061908457:instance-profile/BeanStalk-ITFS
Last activity	Maximum session duration	
-	1 hour	

Now go back to the Beanstalk environment creation page

Here you can now see your role in Instance Profile once you click on refresh

This screenshot shows the 'Configure instance profile' step in the AWS Elastic Beanstalk console. It features three sections: 'Service role' with radio buttons for 'Create and use new service role' and 'Use an existing service role' (the latter is selected); 'Existing service roles' with a dropdown menu showing 'aws-elasticbeanstalk-service-role' and a refresh button; and 'EC2 key pair' with a dropdown menu showing 'Keypair' and a refresh button. Below these is the 'EC2 instance profile' section with a dropdown menu showing 'BeanStalk-ITFS' and a refresh button, followed by a 'View permission details' button. At the bottom, there are navigation buttons: 'Cancel', 'Skip to review', 'Previous', and 'Next'.

Here choose your default VPC

This screenshot shows the 'Set up networking, database, and tags' step in the AWS Elastic Beanstalk console. The left sidebar lists five steps: 'Step 1: Configure environment', 'Step 2: Configure service access', 'Step 3: Set up networking, database, and tags' (the current step), 'Step 4: Configure instance traffic and scaling', and 'Step 5: Configure updates, monitoring, and logging'. The main content area is titled 'Set up networking, database, and tags - optional' and contains two sections: 'Virtual Private Cloud (VPC)' and 'Instance settings'. The VPC section includes a description, a 'Learn more' link, and a dropdown menu showing 'vpc-060243d0d3bdde7cf | (172.31.0.0/16)'. The Instance settings section includes a description and a 'Learn more' link. At the bottom, there is a 'Public IP address' section.

Instance settings

Choose a subnet in each AZ for the instances that run your application. To avoid exposing your instances to the Internet, run your instances in private subnets and load balancer in public subnets. To run your load balancer and instances in the same public subnets, assign public IP addresses to the instances. [Learn more](#)

Public IP address

Assign a public IP address to the Amazon EC2 instances in your environment.

☒ Activated

Instance subnets

<input type="checkbox"/>	Availability Zone	Subnet	CIDR	Name
<input type="checkbox"/>	ap-south-1a	subnet-016da157fcf2626b1	172.31.48.0/25	RDS-Pvt-s...
<input type="checkbox"/>	ap-south-1c	subnet-069839662bb131c4d	172.31.16.0/20	

Database

Info

Integrate an RDS SQL database with your environment.
[Learn more](#)

Database subnets

If your Elastic Beanstalk environment is attached to an Amazon RDS, choose subnets for your database instances.
[Learn more](#)

Choose database subnets (6)

<input type="checkbox"/>	Availability Zone	Subnet ▲	CIDR	Name
<input type="checkbox"/>	ap-south-1a	subnet-016da157f...	172.31.48.0/25	RDS-Pvt-subnet-1
<input type="checkbox"/>	ap-south-1c	subnet-069839662...	172.31.16.0/20	
<input type="checkbox"/>	ap-south-1b	subnet-0c464059d...	172.31.0.0/20	
<input type="checkbox"/>	ap-south-1c	subnet-0eb027f8b	172.31.49.0/25	RDS-Pvt-subnet-3

Choose default

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](#)

Configure instance traffic and scaling - optional

▼ Instances

Configure the Amazon EC2 instances that run your application.

Root volume (boot device)

Root volume type
(Container default)

Size
The number of gigabytes of the root volume attached to each instance.
8 GB

IOPS
Input/output operations per second for a provisioned IOPS (SSD) volume.
100 IOPS

Choose your security group for the instance (with HTTP port open)

EC2 security groups

Select security groups to control traffic.

EC2 security groups (6)

<input type="checkbox"/>	Group name	Group ID	Name
<input type="checkbox"/>	default	sg-056c899749b2146ca	
<input type="checkbox"/>	ec2-rds-1	sg-06da42ba727249c9d	
<input type="checkbox"/>	launch-wizard-1	sg-0058f33094c56b4a4	
<input type="checkbox"/>	rds-ec2-1	sg-0fd6397261e2d60e6	
<input type="checkbox"/>	RDS-SG	sg-04cd4064f8cc843e6	
<input checked="" type="checkbox"/>	SG	sg-0d577aea04f1e6d87	

Choose whichever you prefer , we don't have any big requirements so we'll go with 'Single Instance'

▼ Capacity [Info](#)

Configure the compute capacity of your environment and auto scaling settings to optimize the number of instances used.

Auto scaling group

Environment type
Select a single-instance or load-balanced environment. You can develop and test an application in a single-instance environment to save costs and then upgrade to a load-balanced environment when the application is ready for production. [Learn more](#)

Single instance ▼

Instances

1

Min

1

Max

Fleet composition
Spot instances are launched at the lowest available price. [Learn more](#)

Select t2 micro for free tier

Architecture
The processor architecture determines the instance types that are made available. You can't change this selection after you create the environment. [Learn more](#)

☒ x86_64
This architecture uses x86 processors and is compatible with most third-party tools and libraries.

☐ arm64 - new
This architecture uses AWS Graviton2 processors. You might have to recompile some third-party tools and libraries.

Instance types
Add instance types for your fleet. Change the order that the instances are in to set the preferred launch order. This only affects On-Demand instances. We recommend you include at least two instance types. [Learn more](#)

Choose x86 instance types ▼

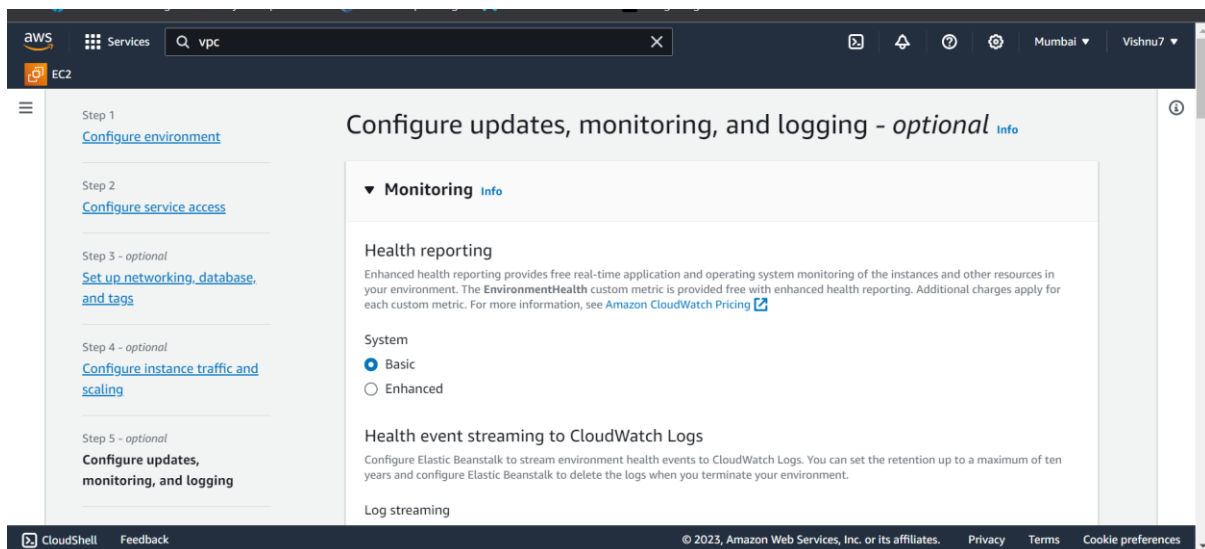
t2.micro ✕

AMI ID
Elastic Beanstalk selects a default Amazon Machine Image (AMI) for your environment based on the Region, platform version, and processor architecture that you choose. [Learn more](#)

ami-098f17388747c31c0

Availability Zones

We need only Basic monitoring here



▼ **Managed platform updates** [Info](#)

Activate managed platform updates to apply platform updates automatically during a weekly maintenance window that you choose. Your application stays available during the update process.

Managed updates

☐ Activated

Weekly update window

Wednesday ▼ at 06 ▼ : 19 ▼ UTC

Update level

Minor and patch ▼

Instance replacement

If enabled, an instance replacement will be scheduled if no other updates are available.

☐ Activated

Provide your email as per your wish

▼ **Email notifications** [Info](#)


Enter an email address to receive email notifications for important events from your environment. [Learn more](#)

Email

vishnukm4ew@gmail.com

▼ Rolling updates and deployments [Info](#)

Application deployments

Choose how Amazon Elastic Beanstalk propagates source code changes and software configuration updates. [Learn more](#) 

Deployment policy

All at once ▼

Batch size type

☒ Percentage

☐ Fixed

Deployment batch size

100

% instances at a time

Configuration updates

Changes to virtual machine settings and VPC configuration trigger rolling updates to replace the instances in your environment without

Deployment preferences

Customize health check requirements and deployment timeouts.

Ignore health check

Don't fail deployments due to health check failures.

False ▼

Health threshold

Lower the threshold for an instance in a batch to pass health checks during an update or deployment.

Ok ▼


Command timeout

Change the amount of time in seconds that Amazon Elastic Beanstalk allows an instance to complete deployment commands.

600

seconds

▼ Platform software [Info](#)

Configure the options available to your specific platform. These include the proxy server and OS environment properties. [Learn more](#) 

Container options

Proxy server

Apache ▼

Amazon X-Ray

Amazon X-Ray is a service that collects data about the requests and responses that your application serves and receives. You can use the tools that X-Ray offers to view and filter the data that it provides to identify potential issues and optimization opportunities.

X-Ray daemon

(service charges may apply.)

☐ Activated

Our environment path is shown

Environment properties

The following properties are passed in the application as environment properties. [Learn more](#) 

Name

Value

PYTHONPATH

/var/app/venv/staging-LQM1lest/bin

Remove

Add environment property

Cancel

Previous

Next

Review

Step 1: Configure environment

Edit

Environment information

Environment tier	Application name
Web server environment	Test
Environment name	Application code
Test-env	Sample application
Platform	
arn:aws:elasticbeanstalk:ap-south-1::platform/Python	
3.11 running on 64bit Amazon Linux 2023/4.0.4	

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 key pair	EC2 instance profile
arn:aws:iam::501061908457:role/service-role/aws-elasticbeanstalk-service-role	Keypair	BeanStalk-ITFS

Step 3: Set up networking, database, and tags

[Edit](#)

Networking, database, and tags [Info](#)

Configure VPC settings, and subnets for your environment's EC2 instances and load balancer. Set up an Amazon RDS database that's integrated with your environment.

Network

VPC	Public IP address	Instance subnets
vpc-060243d0d3bdde7cf	true	subnet-0c464059deb902114

Tags

Key	Value
No tags	
There are no tags defined	

Step 4: Configure instance traffic and scaling

[Edit](#)

Instance traffic and scaling [Info](#)

Customize the capacity and scaling for your environment's instances. Select security groups to control instance traffic. Configure the software that runs on your environment's instances by setting platform-specific options.

Instances

IMDSv1	EC2 Security Groups
Deactivated	sg-0d577aea04f1e6d87

Capacity

Environment type	Fleet composition	On-demand base
Single instance	On-Demand instance	0
On-demand above base	Capacity rebalancing	Scaling cooldown
0	Deactivated	360

Processor type	Instance types	AMI ID
x86_64	t2.micro	ami-098f17388747c31c0
Availability Zones	Metric	Statistic
Any	NetworkOut	Average
Unit	Period	Breach duration
Bytes	5	5
Upper threshold	Scale up increment	Lower threshold
6000000	1	2000000
Scale down increment		
-1		
Load balancer		
Load balancer visibility	Load balancer subnets	Load balancer type
public	subnet-0c464059deb902114	application

Step 5: Configure updates, monitoring, and logging

[Edit](#)

Updates, monitoring, and logging [Info](#)

Define when and how Elastic Beanstalk deploys changes to your environment. Manage your application's monitoring and logging settings, instances, and other environment resources.

Monitoring

System	Cloudwatch custom metrics - instance	Cloudwatch custom metrics - environment
basic	—	—
Log streaming	Retention	Lifecycle
Deactivated	7	false

Updates

Managed updates	Deployment batch size	Deployment batch size type
Deactivated	100	Percentage

Command timeout	Deployment policy	Health threshold
600	AllAtOnce	Ok
Ignore health check	Instance replacement	Notifications email
false	false	vishnukm4ew@gmail.com
Platform software		
Lifecycle	Log streaming	NumProcesses
false	Deactivated	1
NumThreads	WSGIPath	Proxy server
15	application	apache
Logs retention	Rotate logs	Update level
7	Deactivated	minor
X-Ray enabled		
Deactivated		

Environment properties

Key ▲	Value ▼
PYTHONPATH	/var/app/venv/staging-LQM1lest/bin

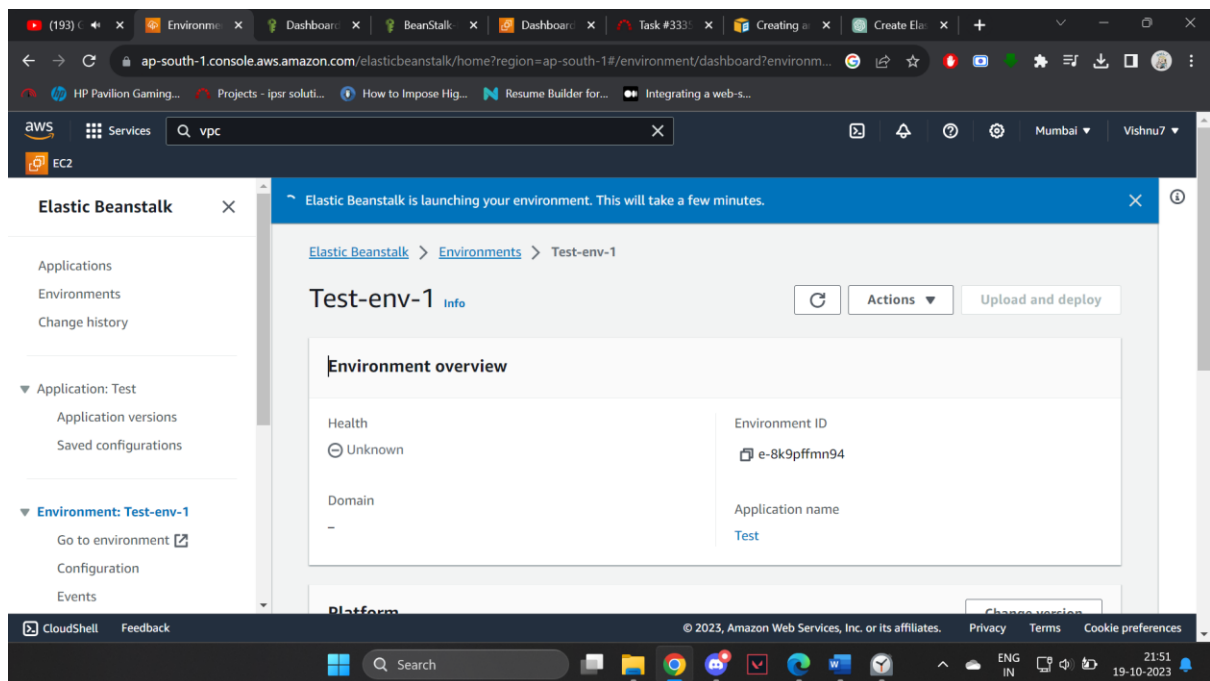
[Cancel](#)[Previous](#)[Submit](#)

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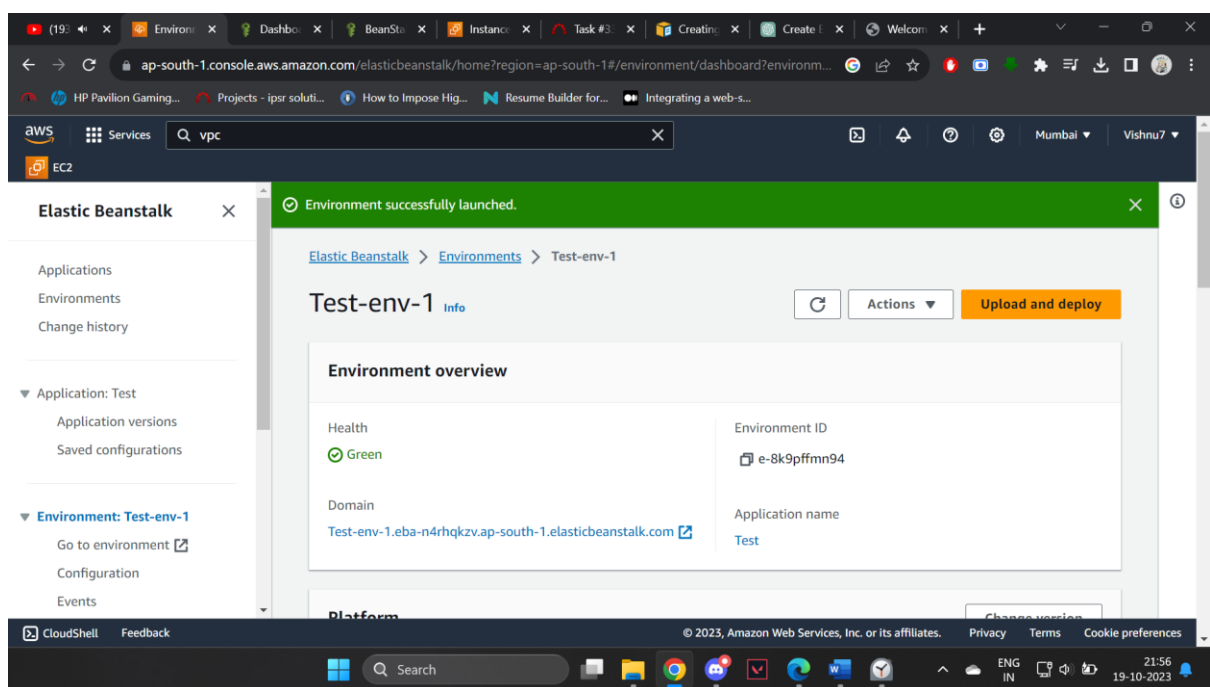
[Privacy](#)[Terms](#)[Cookie](#)

Click on submit to finish

Our Test environment is being created





Wait till the health turns Green












We can see the processes building here

October 19, 2023 21:53:11 (UTC+5:30)	INFO	Instance deployment successfully generated a 'Profile'.
October 19, 2023 21:52:22 (UTC+5:30)	INFO	Waiting for EC2 instances to launch. This may take a few minutes.
October 19, 2023 21:51:46 (UTC+5:30)	INFO	Created EIP: 13.126.122.242
October 19, 2023 21:51:31 (UTC+5:30)	INFO	Created security group named: sg-0c494286129d69c51
October 19, 2023 21:51:12 (UTC+5:30)	INFO	Created SNS Notification Topic. ARN: arn:aws:sns:ap-south-1:501061908457:ElasticBeanstalkNotifications-Environment-Test-env-1
October 19, 2023 21:51:09 (UTC+5:30)	INFO	Using elasticbeanstalk-ap-south-1-501061908457 as Amazon S3 storage bucket for environment data.
October 19, 2023 21:51:08 (UTC+5:30)	INFO	createEnvironment is starting.

EVENTS (10) 

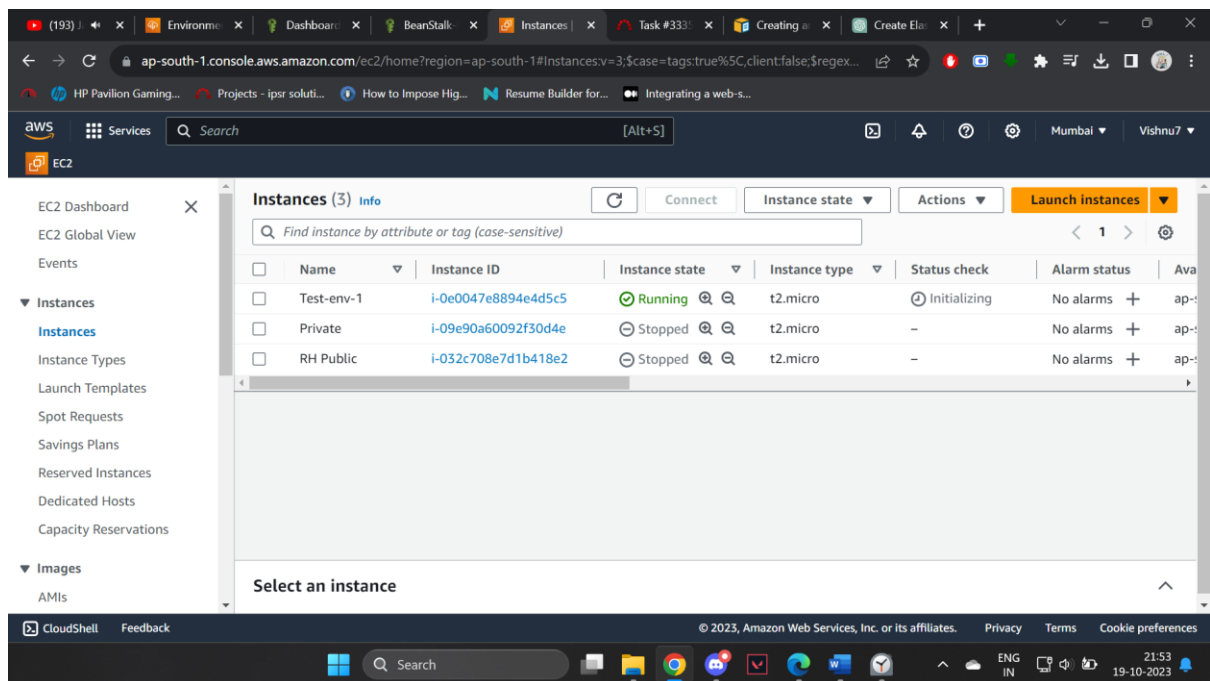
 Filter events by text, property or value

 1  

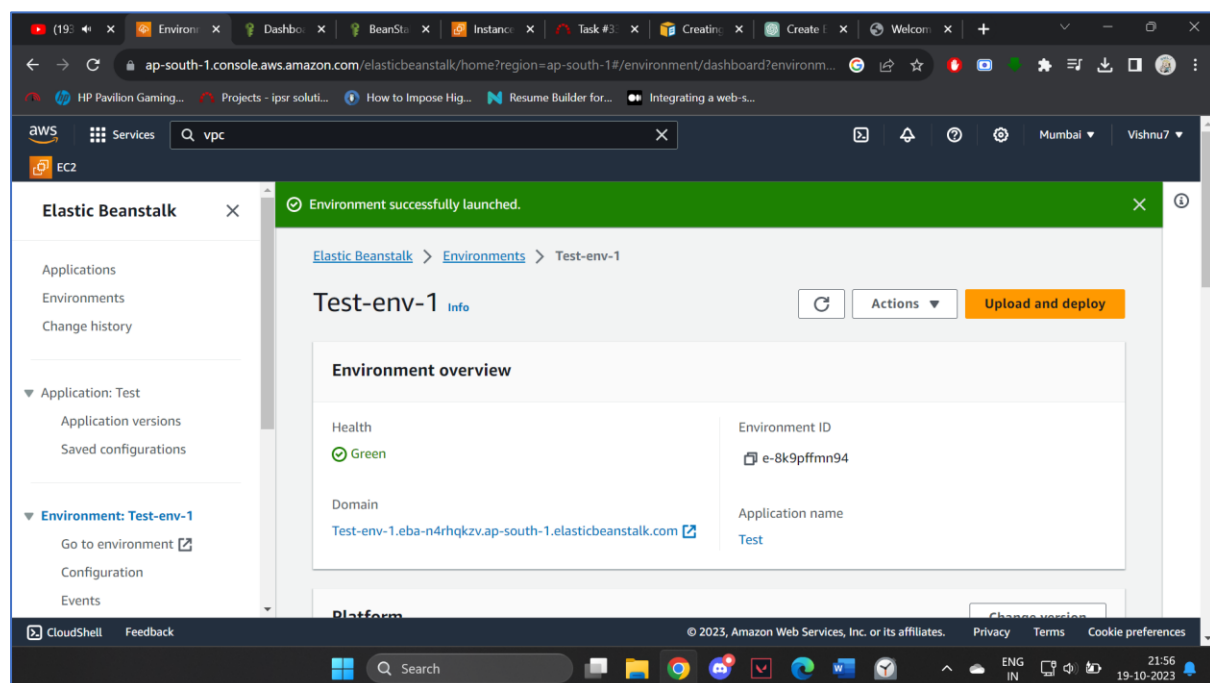
Time	Type	Details
October 19, 2023 21:53:22 (UTC+5:30)	 INFO	Successfully launched environment: Test-env-1
October 19, 2023 21:53:22 (UTC+5:30)	 INFO	Application available at Test-env-1.eba-n4rhqkzv.ap-south-1.elasticbeanstalk.com.
October 19, 2023 21:53:21 (UTC+5:30)	 INFO	Environment health has been set to GREEN
October 19, 2023 21:53:16 (UTC+5:30)	 INFO	Instance deployment completed successfully.
October 19, 2023 21:53:11 (UTC+5:30)	 INFO	Added EC2 instance 'i-0e0047e8894e4d5c5' to Auto Scaling Group 'awseb-e-8k9pffmn94-stack-AWSEBAutoScalingGroup-vYotcPftLvkd'.
October 19, 2023 21:53:11 (UTC+5:30)	 INFO	Adding instance 'i-0e0047e8894e4d5c5' to your environment.

Once our instance is launched , go to EC2 and check its status

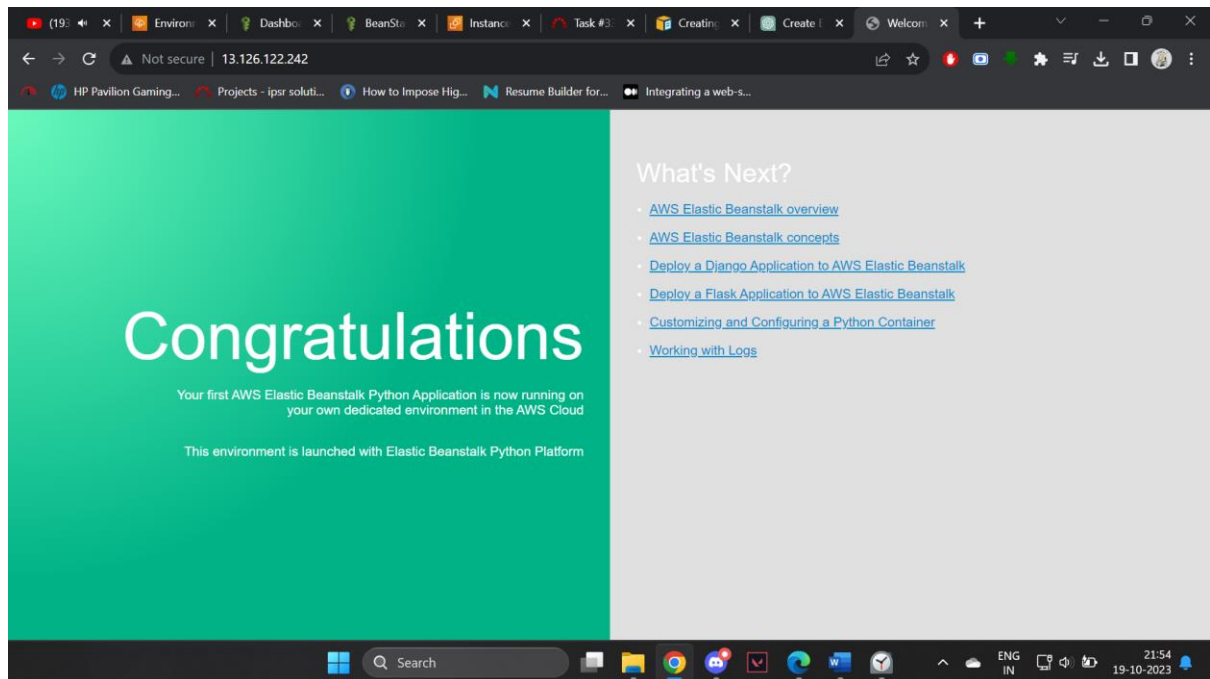
We can see our instance launched here



Now go back to the 'Test' environment and click on its domain



It'll take us to our Application



You can change the configuration of the same, from edit options in the environment page and also modify the environment based on your preference.