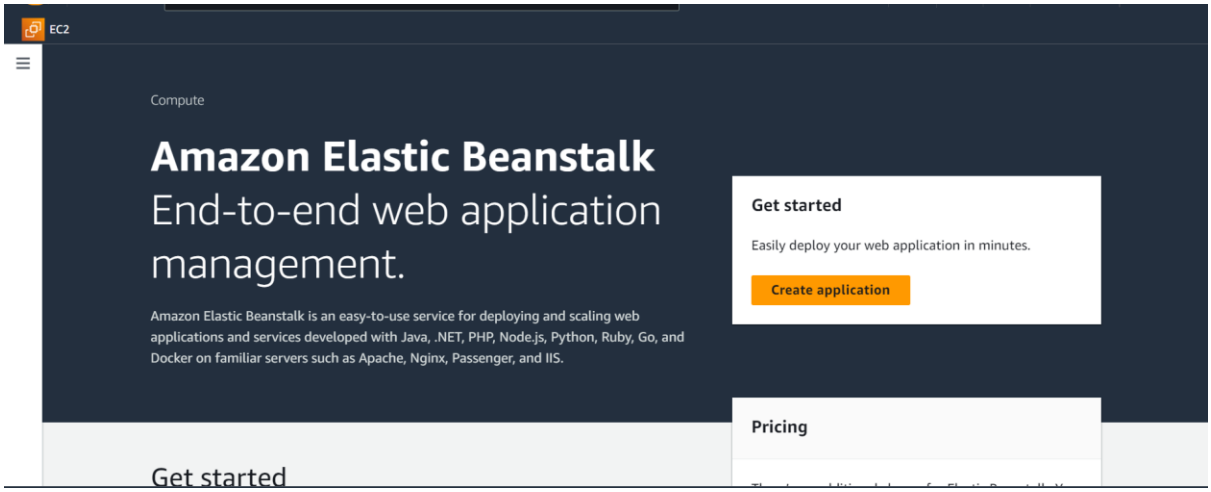
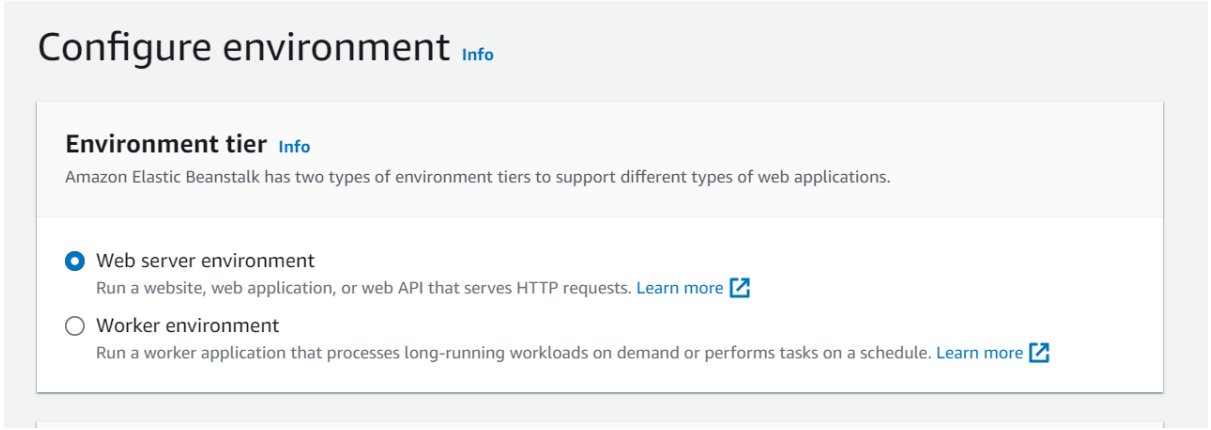
Elastic Beanstalk Environment Configuration

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.

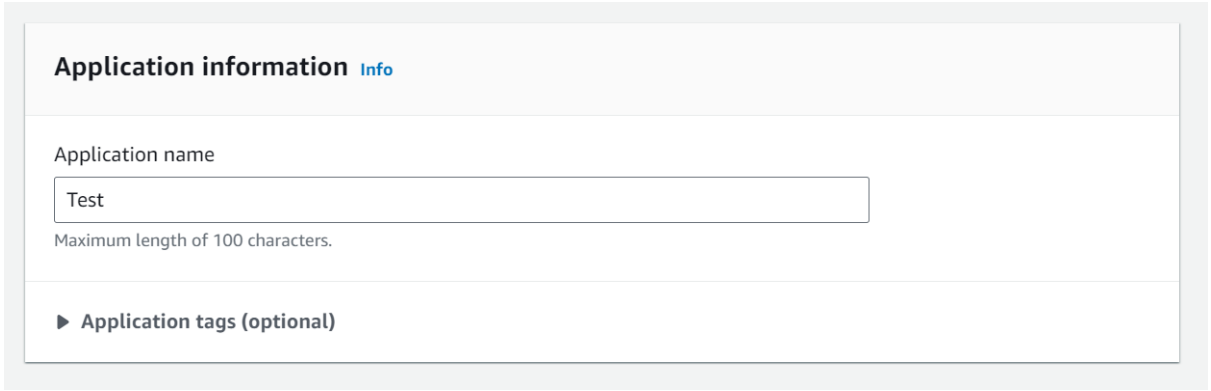
Create an application

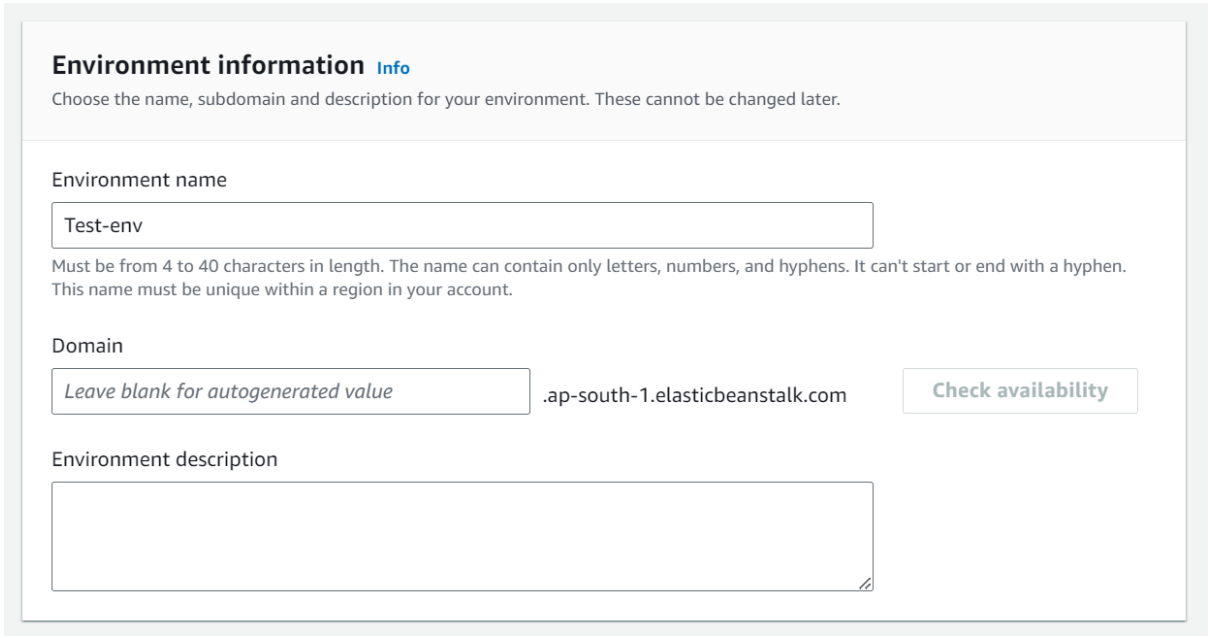


Choose an environment tier

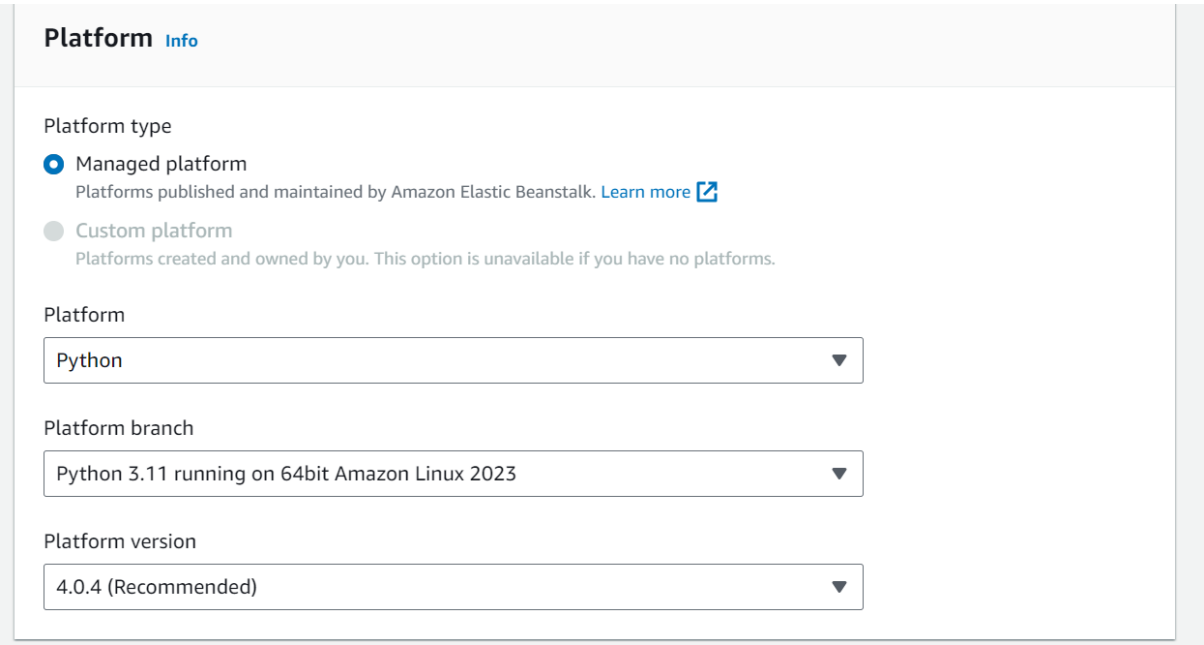


Name it as ‘Test’

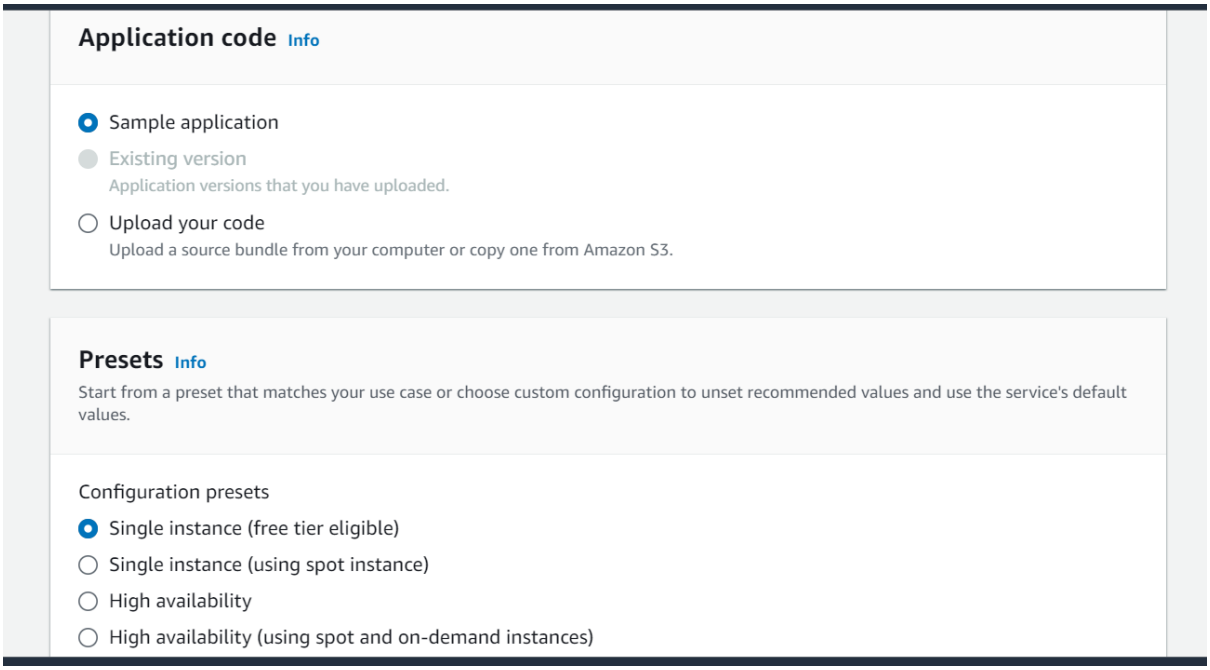




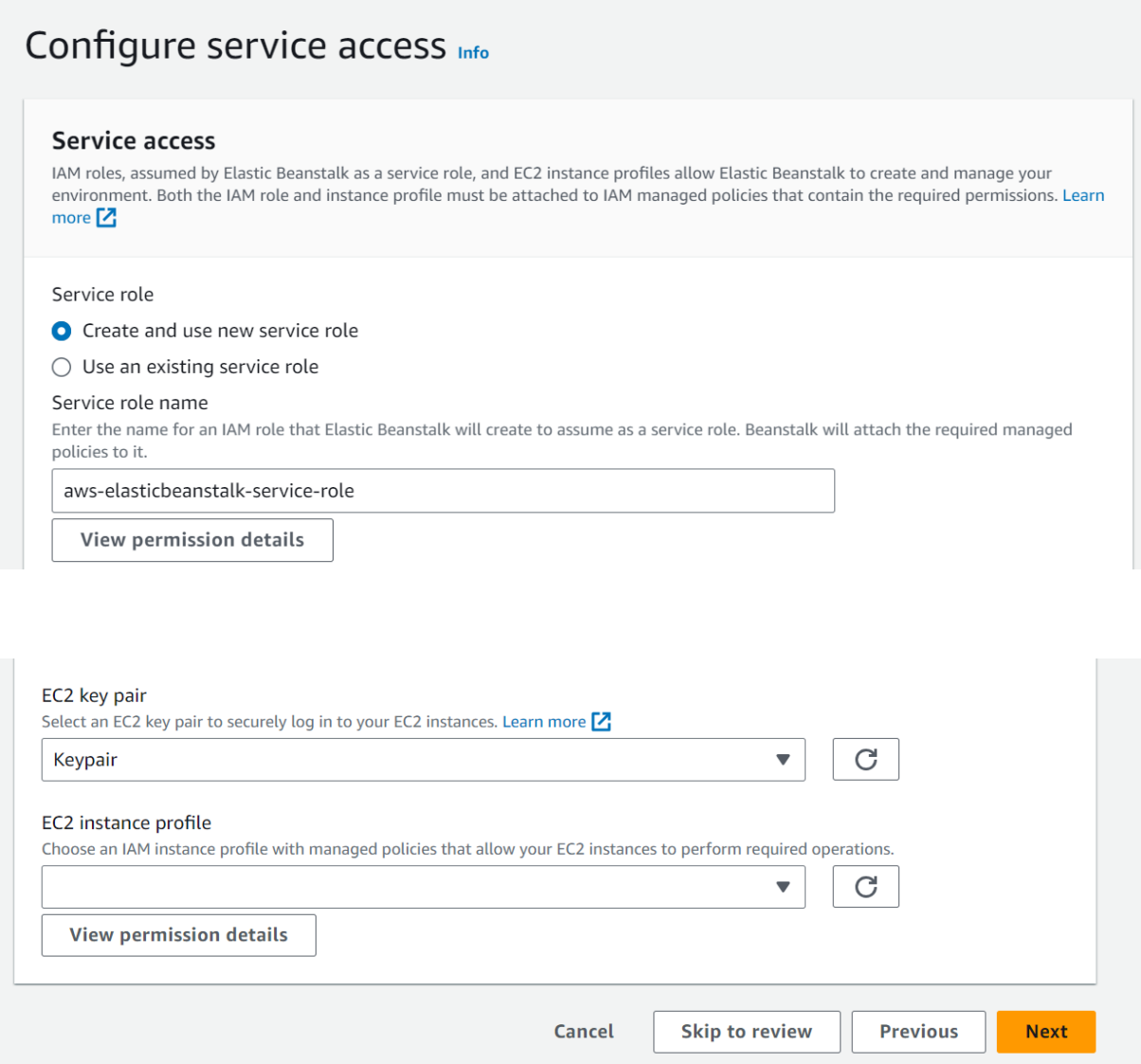
Choose any platform



Create a sample application

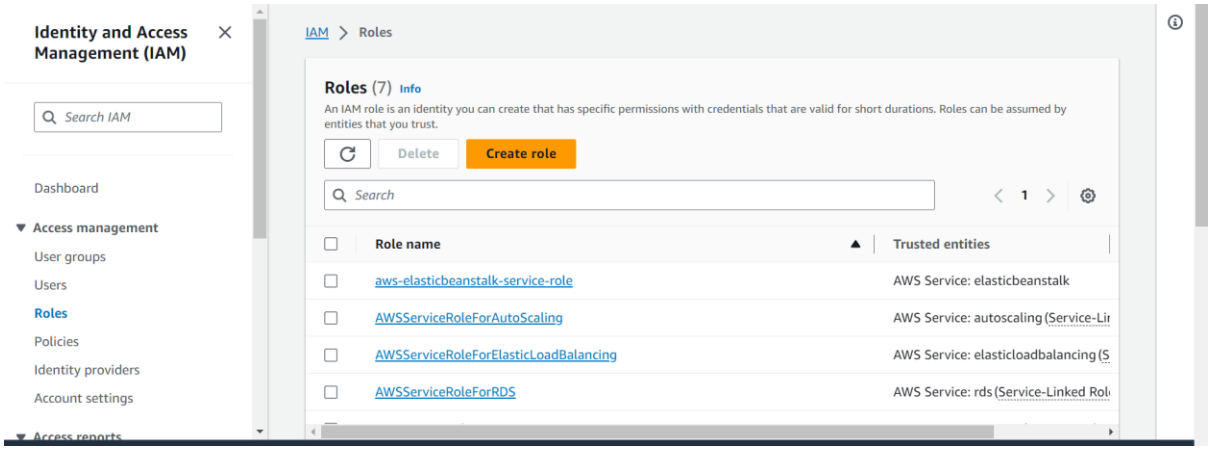


The **Configure service access** page displays

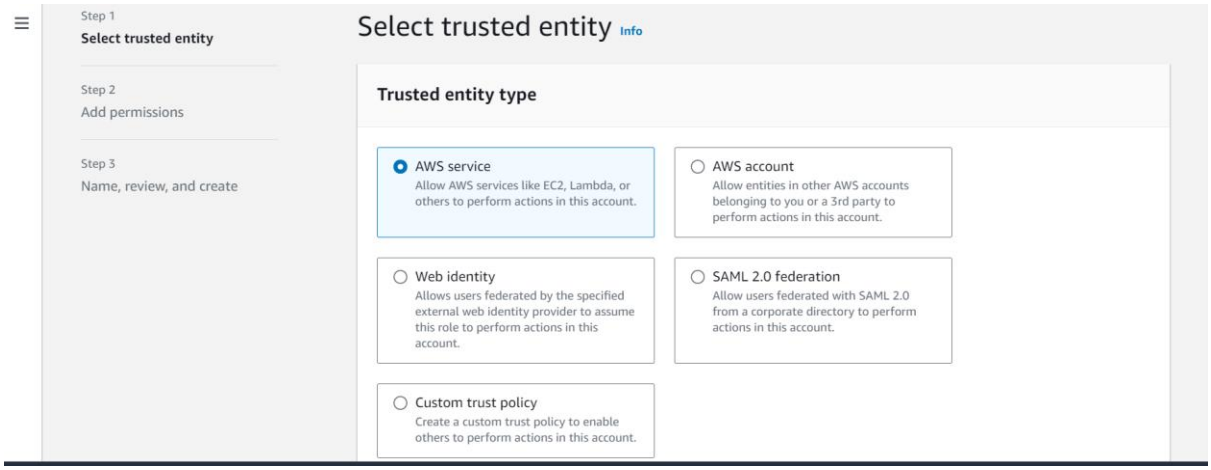


Here we have to create a EC2 instance profile

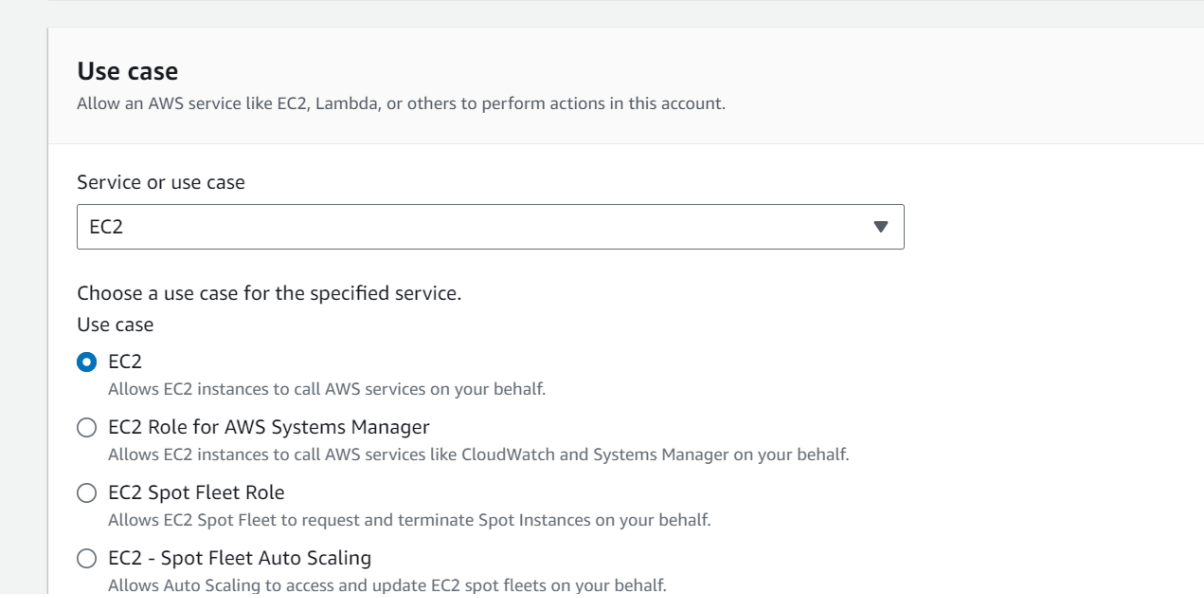
So go to IAM roles and create a role



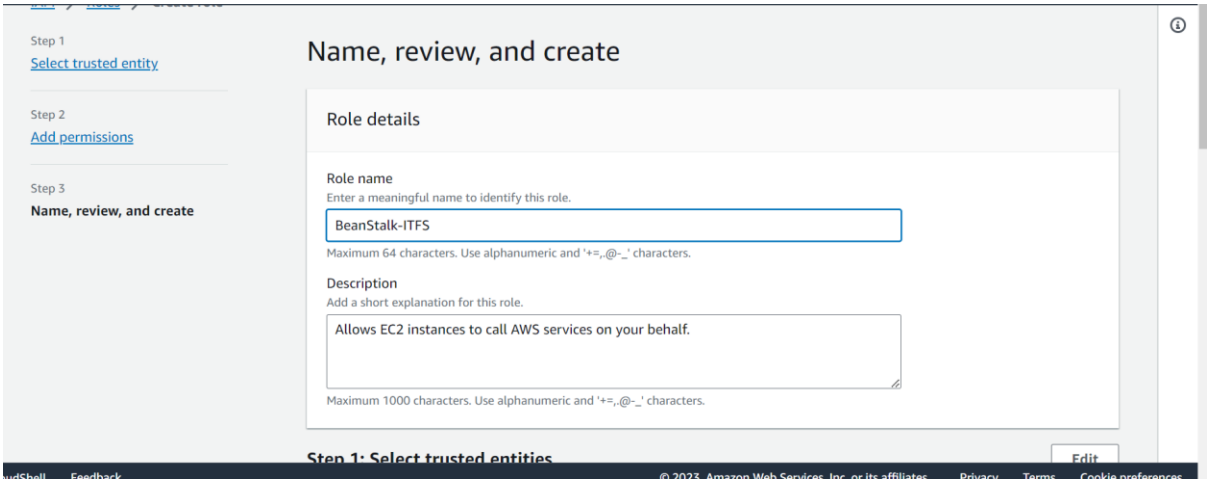
Select the entity type as 'AWS service'



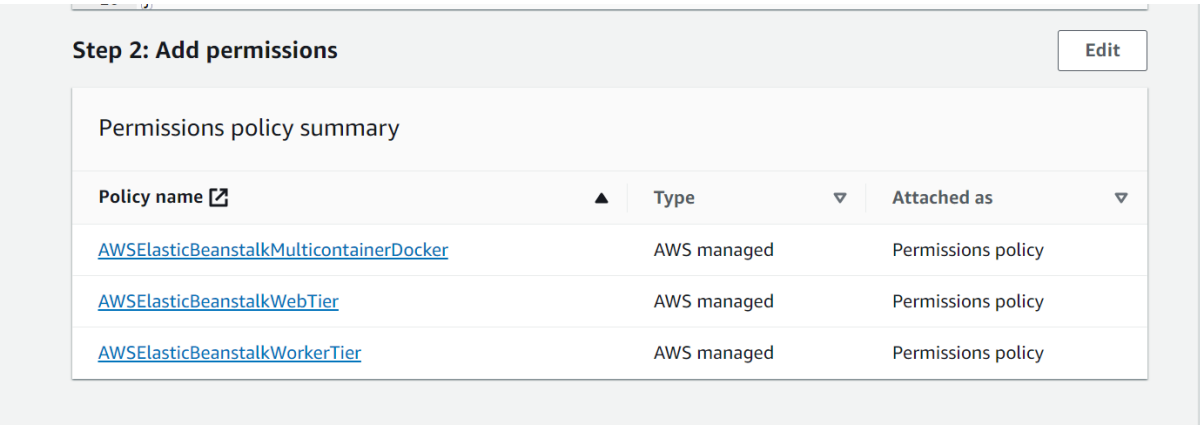
Choose the User case as ‘EC2’



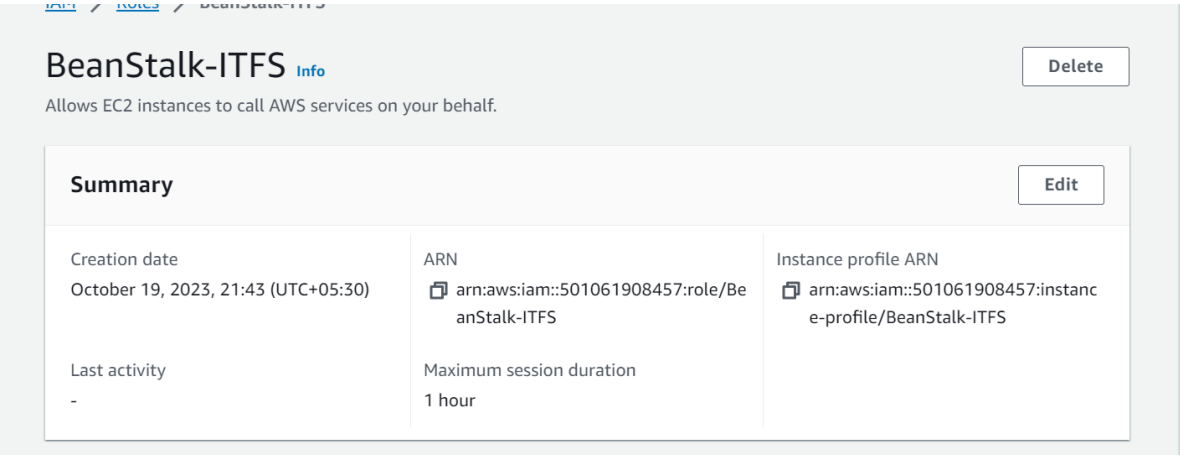
Name it as ‘BeanStalk-ITFS’



Add these permissions

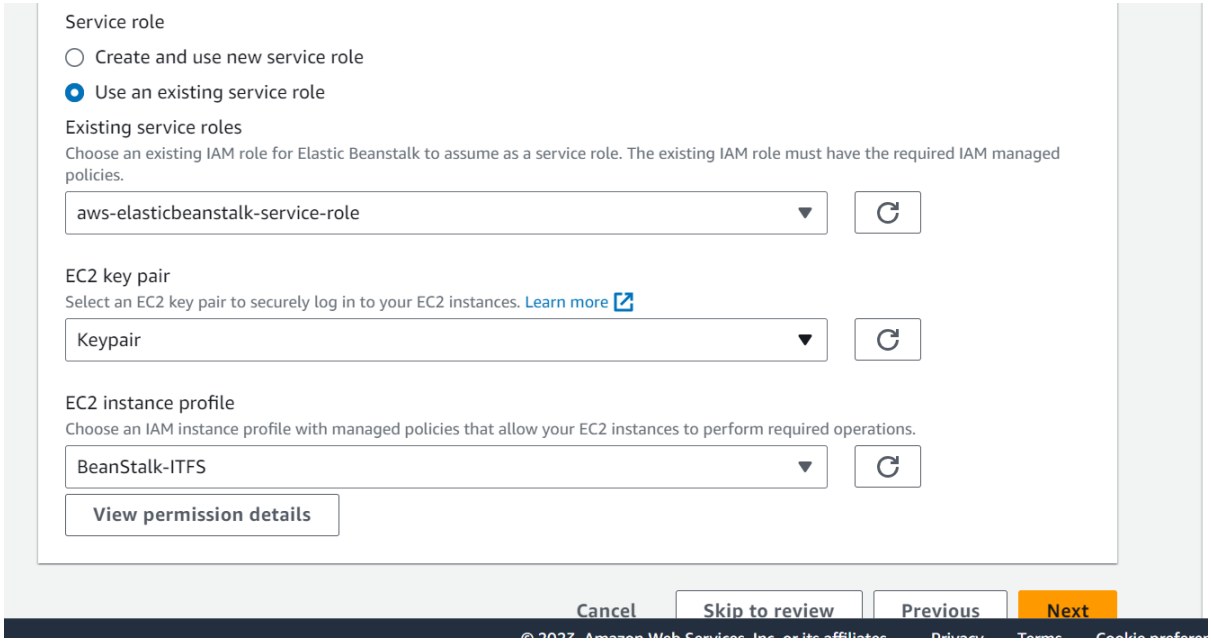


Our role has been created

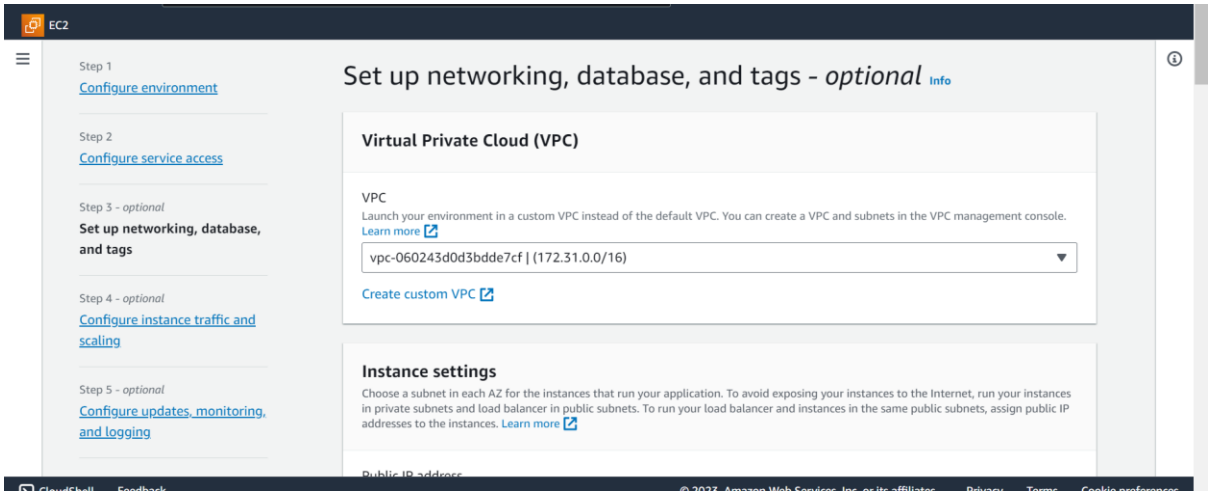


Now go back to the Beanstalk environment creation page

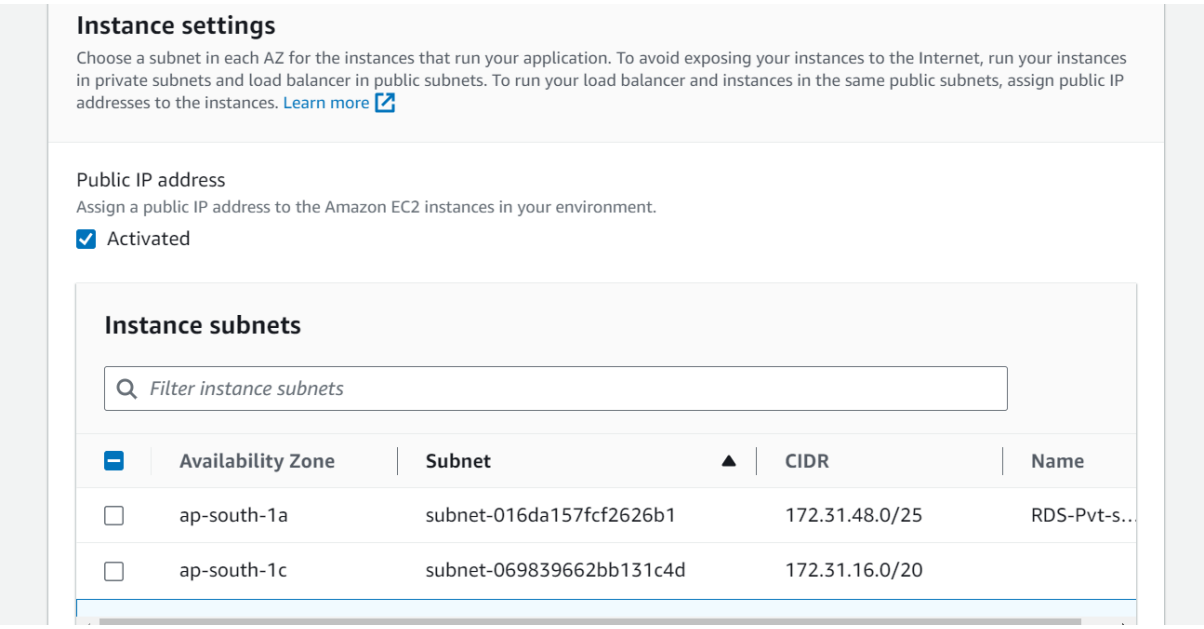
Here you can now see your role in Instance Profile once you click on refresh



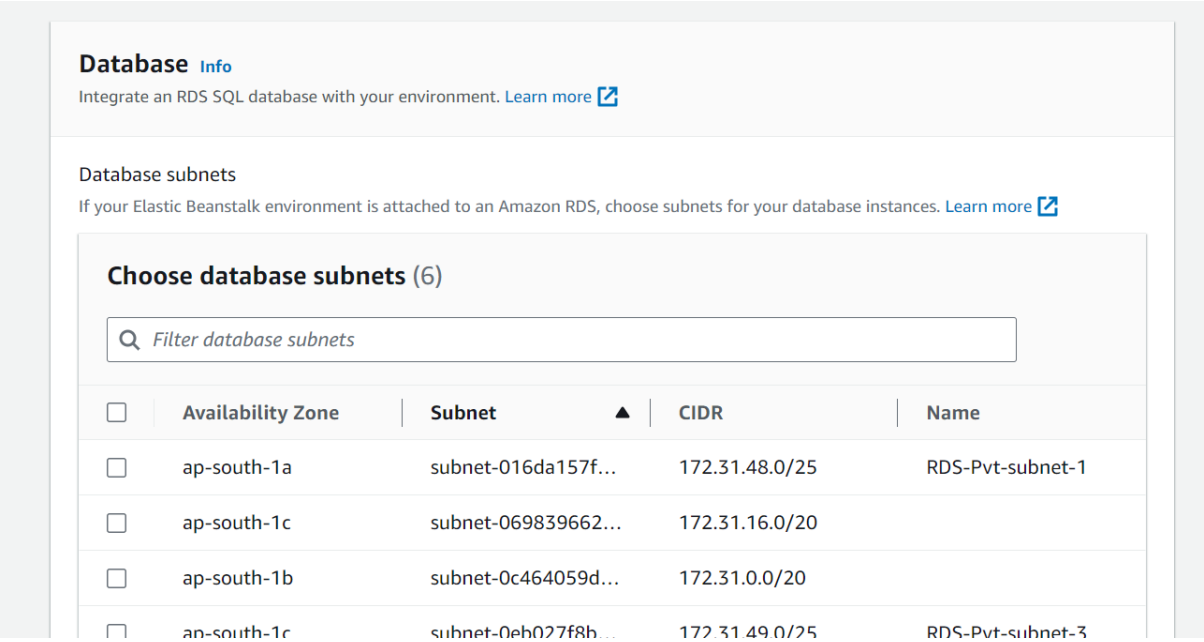
Here choose your default VPC



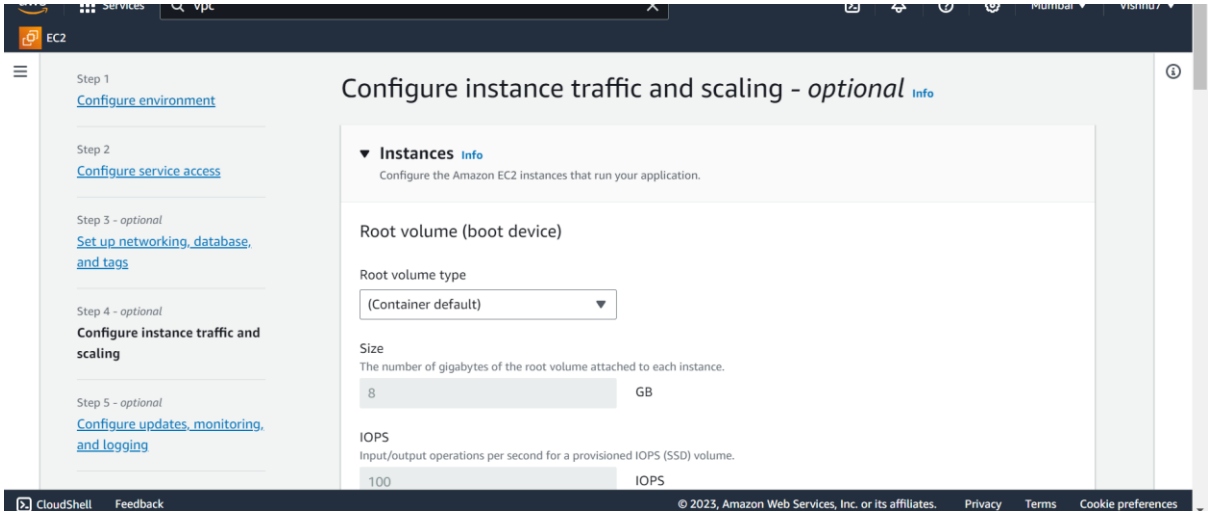
Choose the subnets required



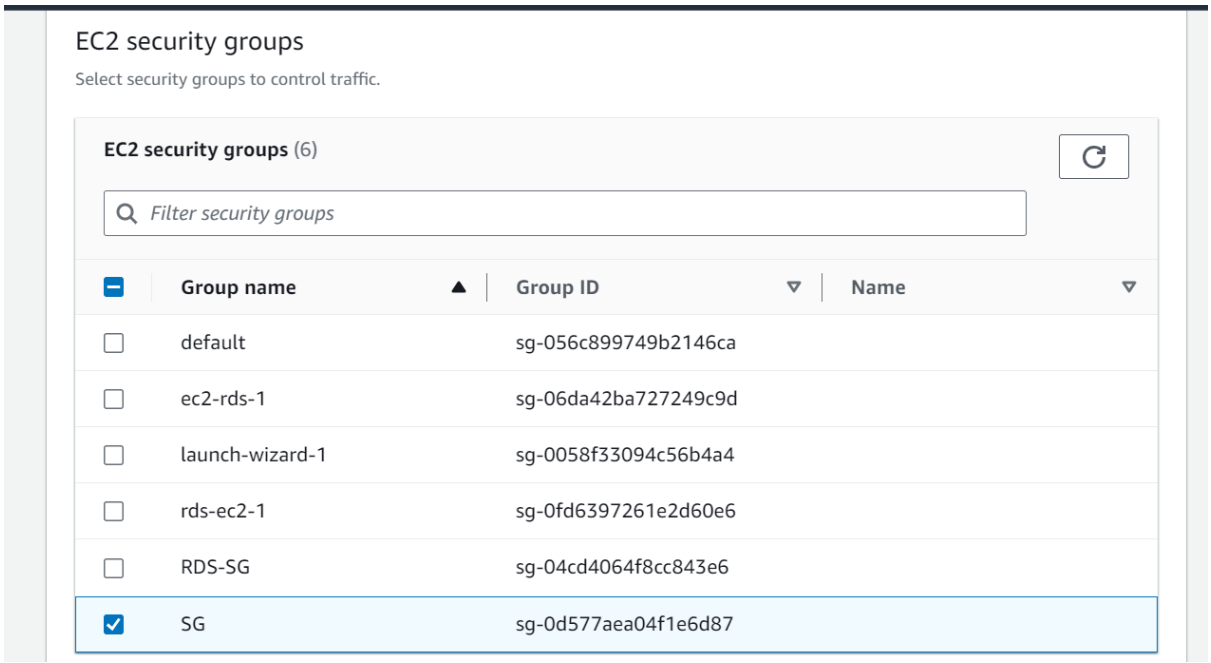
If you have any database to use , choose the subnet it is on



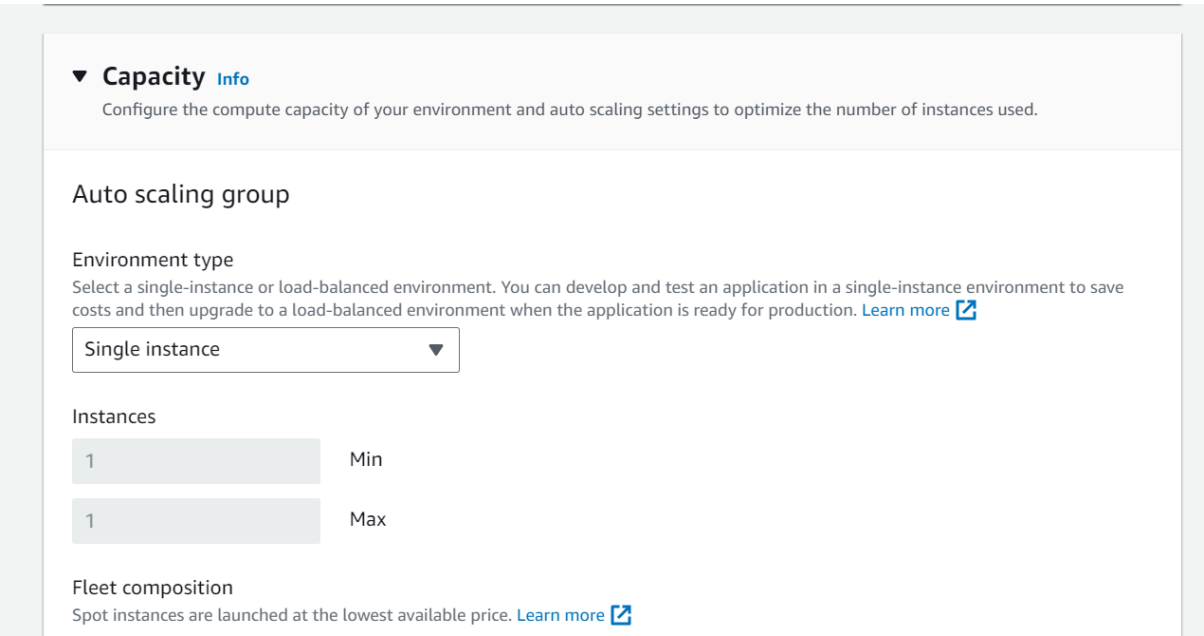
Choose default



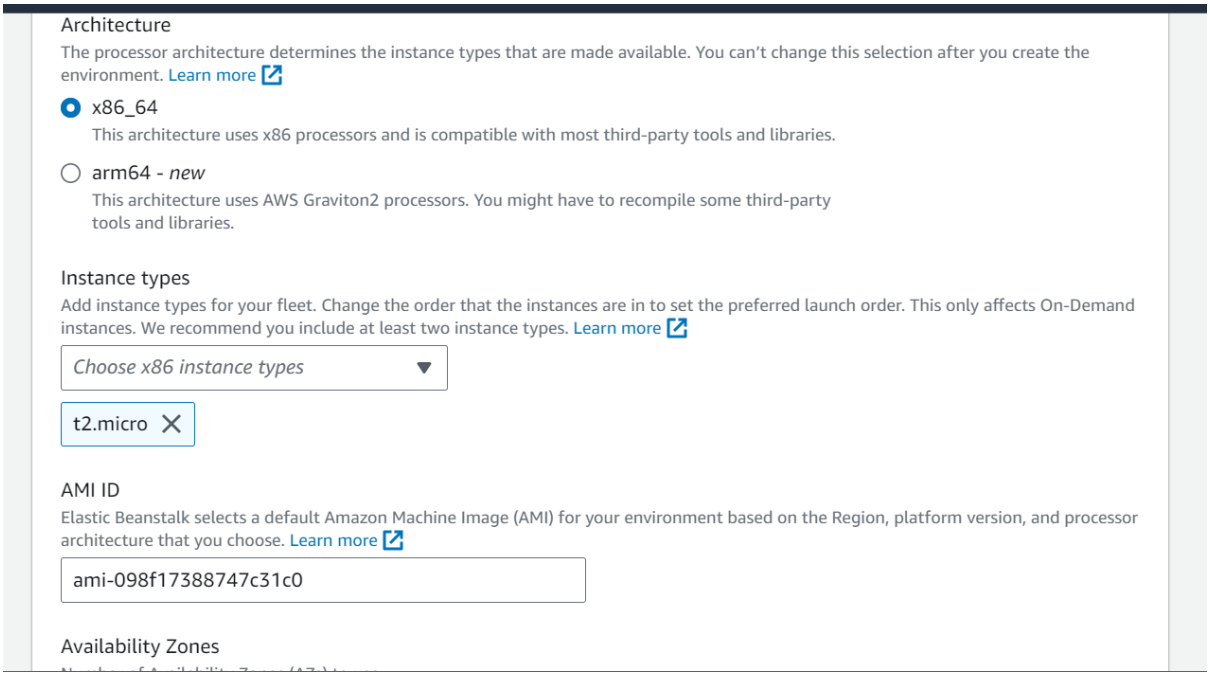
Choose your security group for the instance (with HTTP port open)



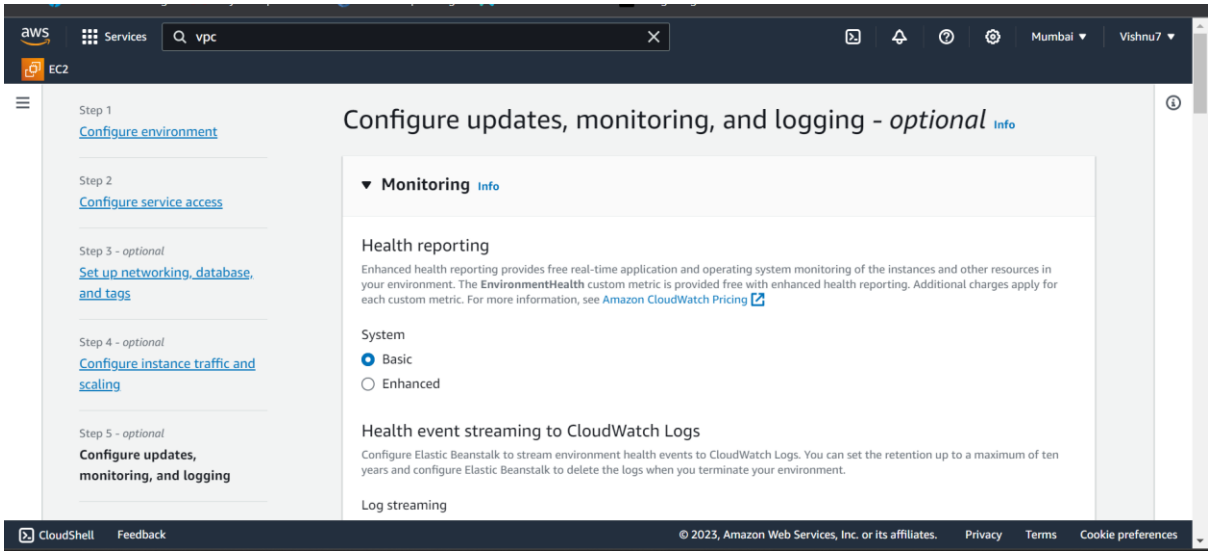
Choose whichever you prefer , we don't have any big requirements so we'll go with 'Single Instance'

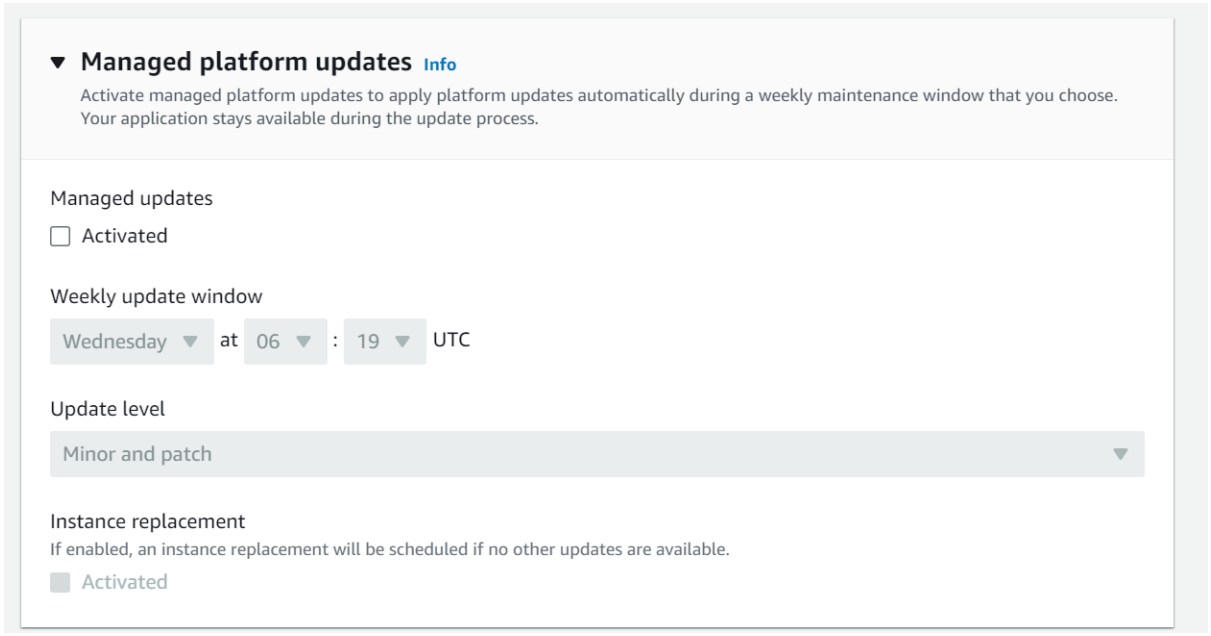


Select t2 micro for free tier

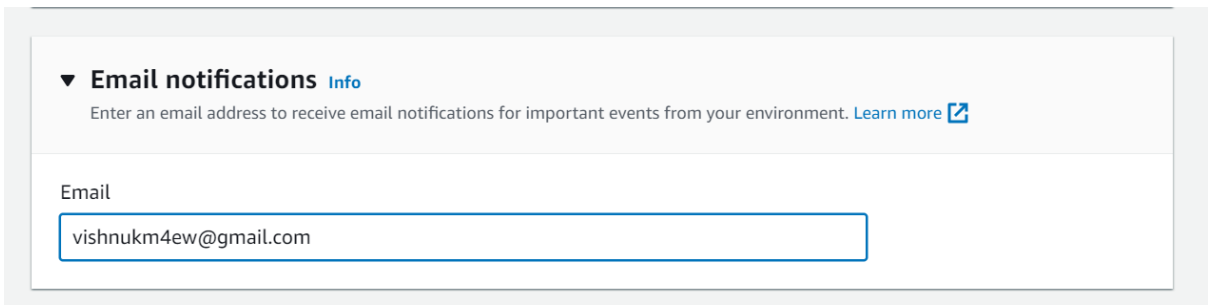


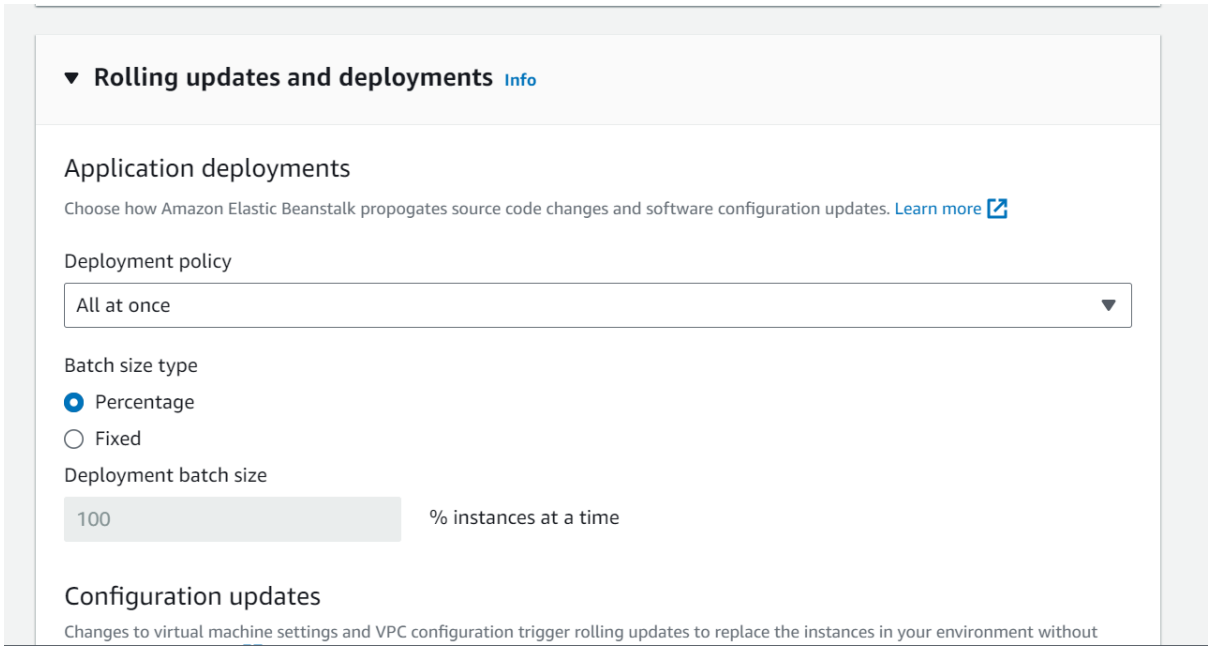
We need only Basic monitoring here

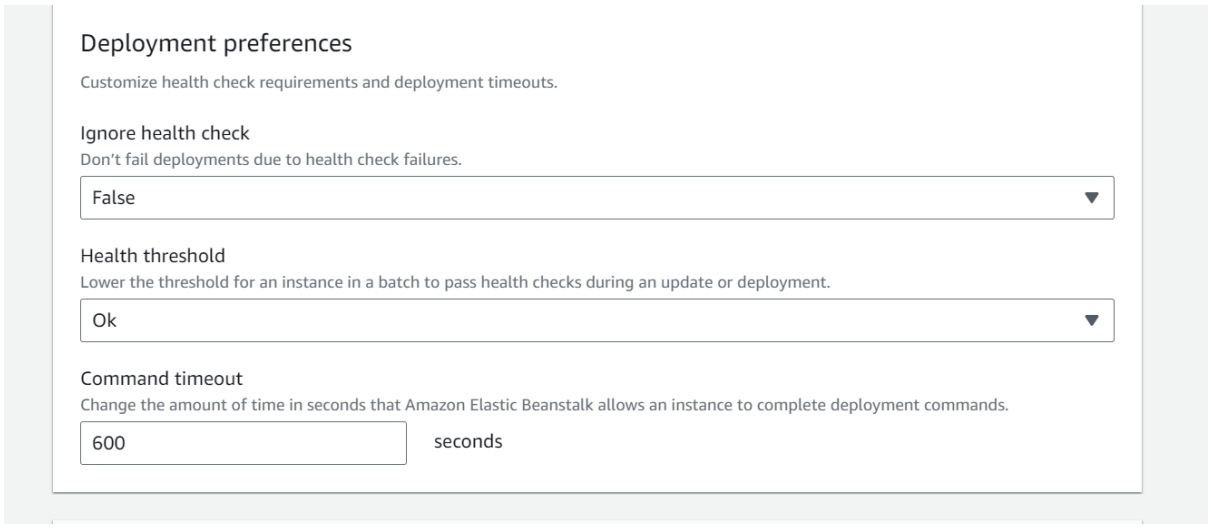


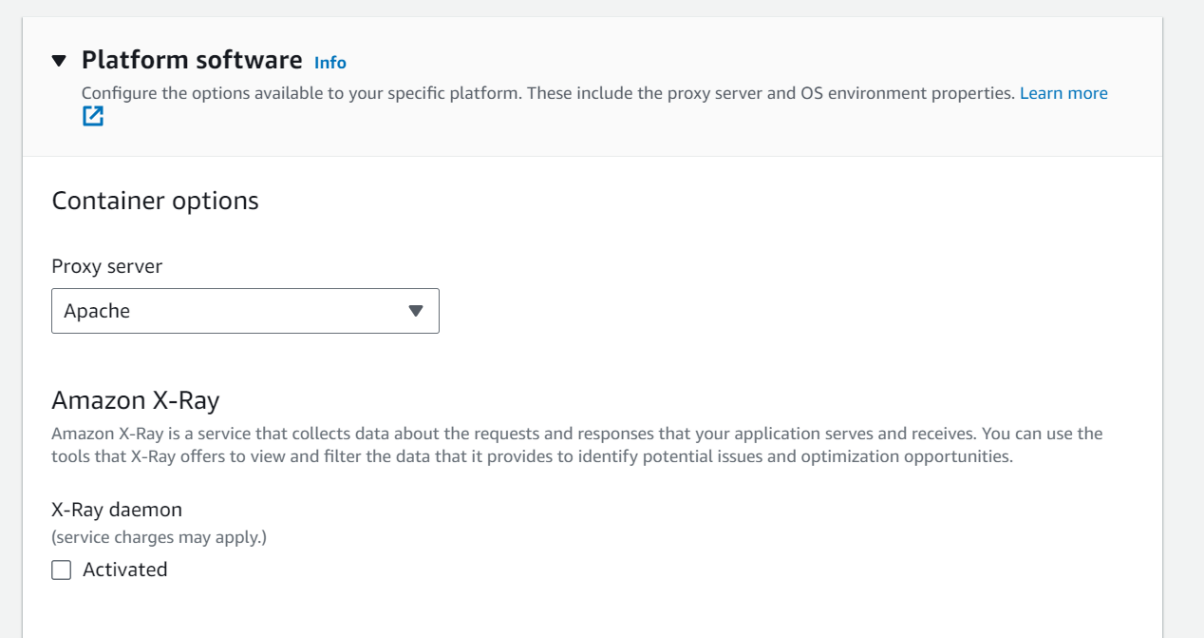


Provide your email as per your wish

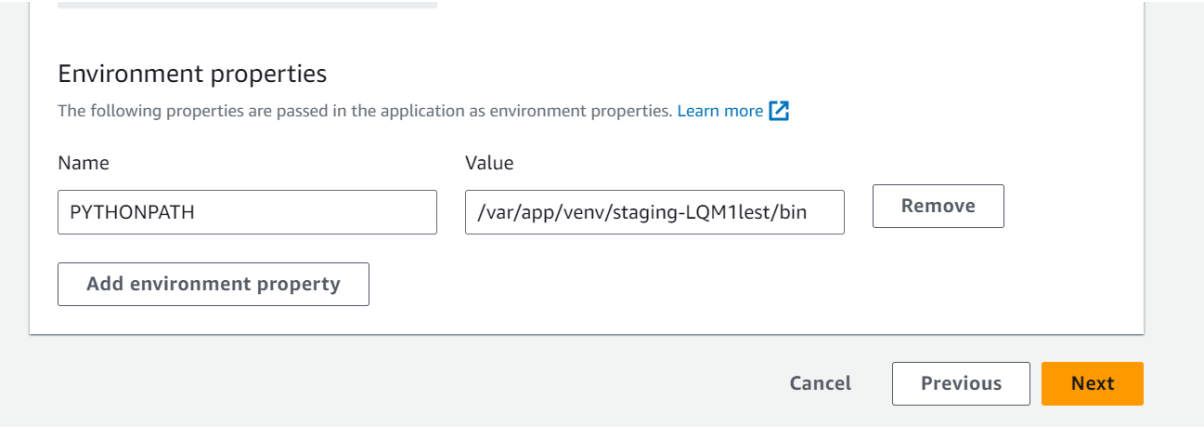



Rolling updates and deployments Info
Application deployments
Choose how Amazon Elastic Beanstalk propogates source code changes and software configuration updates. Learn more
Deployment policy
All at once
Batch size type
Percentage
Fixed
Deployment batch size
100
% instances at a time
Configuration updates
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



Our environment path is shown



Review

Step 1: Configure environment

Edit

Environment information

Environment tier Web server environment	Application name Test
Environment name Test-env	Application code 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 arn:aws:iam::501061908457:role/service-role/aws-elasticbeanstalk-service-role	EC2 key pair Keypair	EC2 instance profile 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

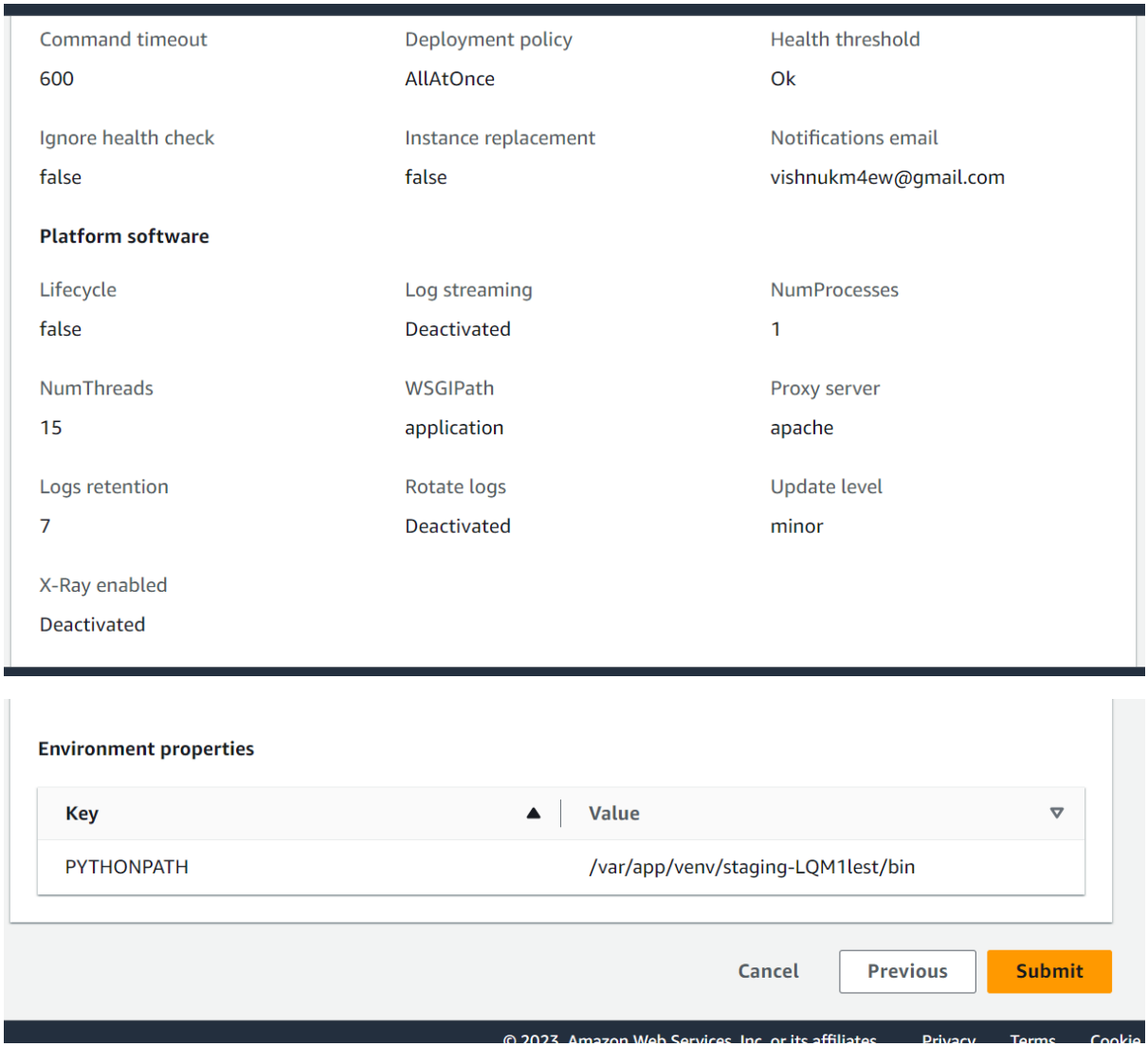
Define when and how Elastic Beanstalk deploys changes to your environment. Manage your application's monitoring and logging settings, instances, and other environment resources.

Monitoring

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

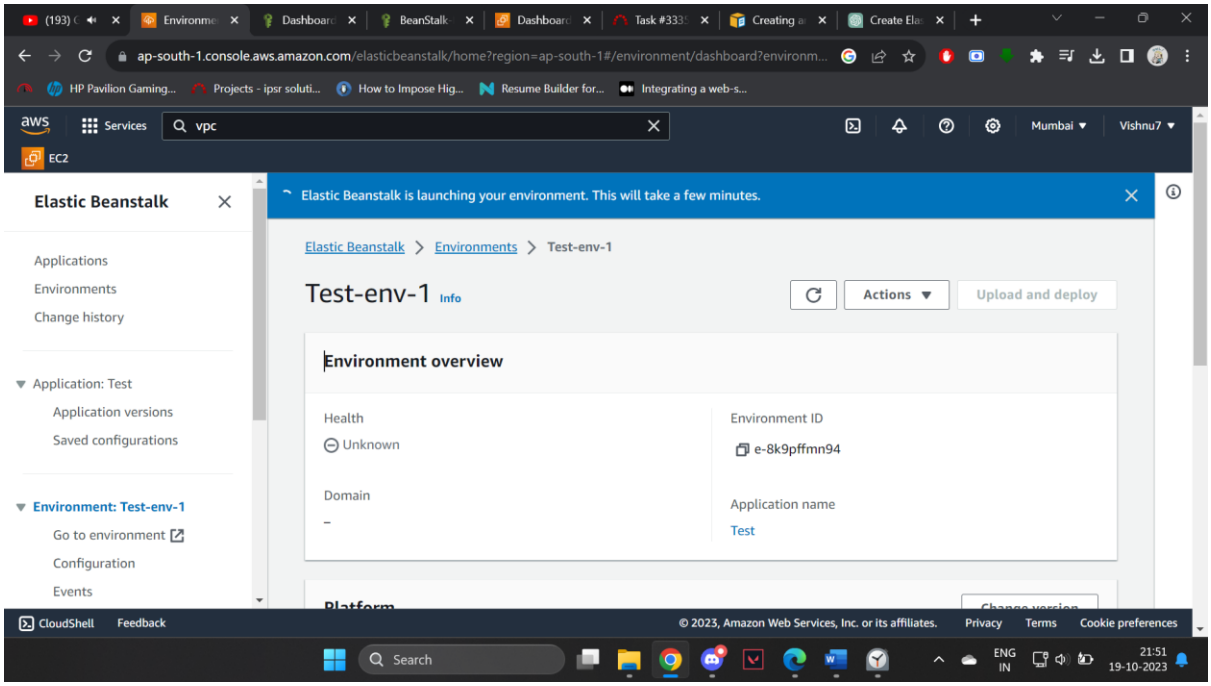
Updates

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

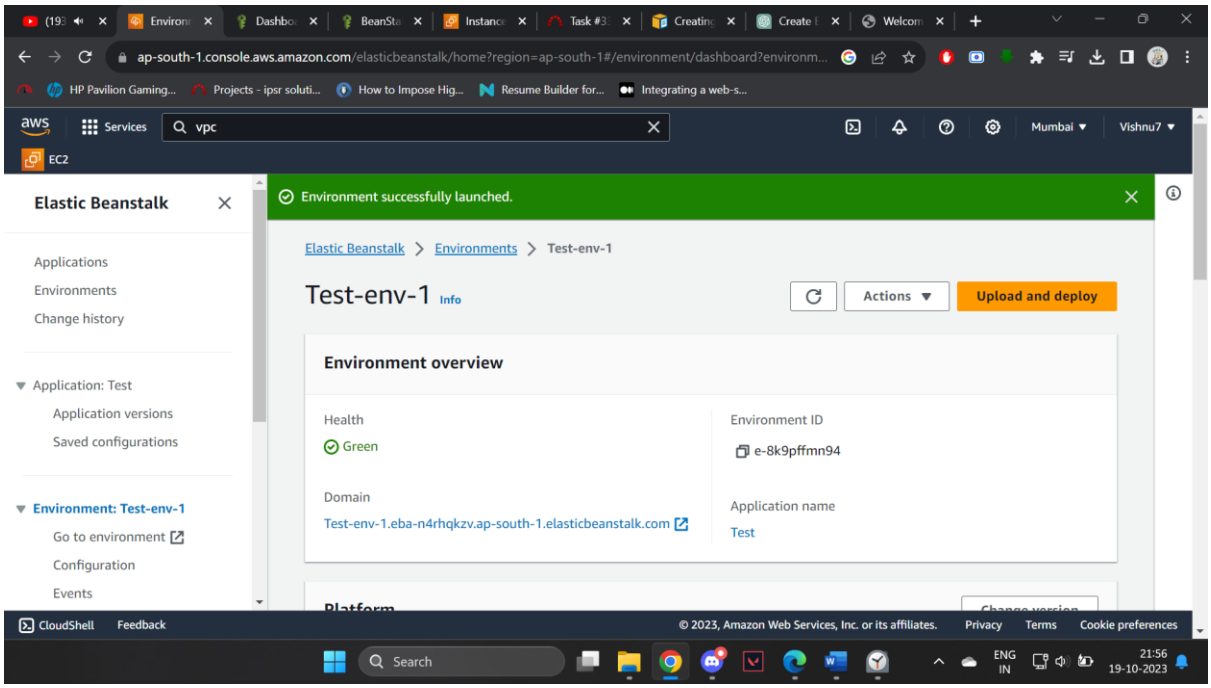


Click on submit to finish

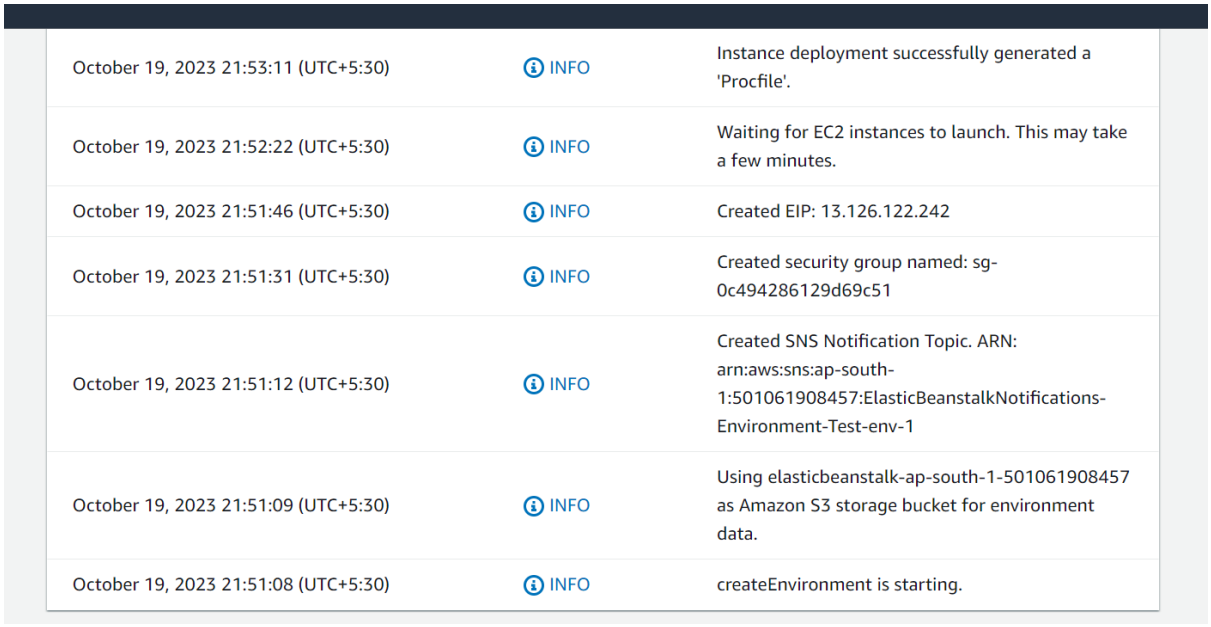
Our Test environment is being created



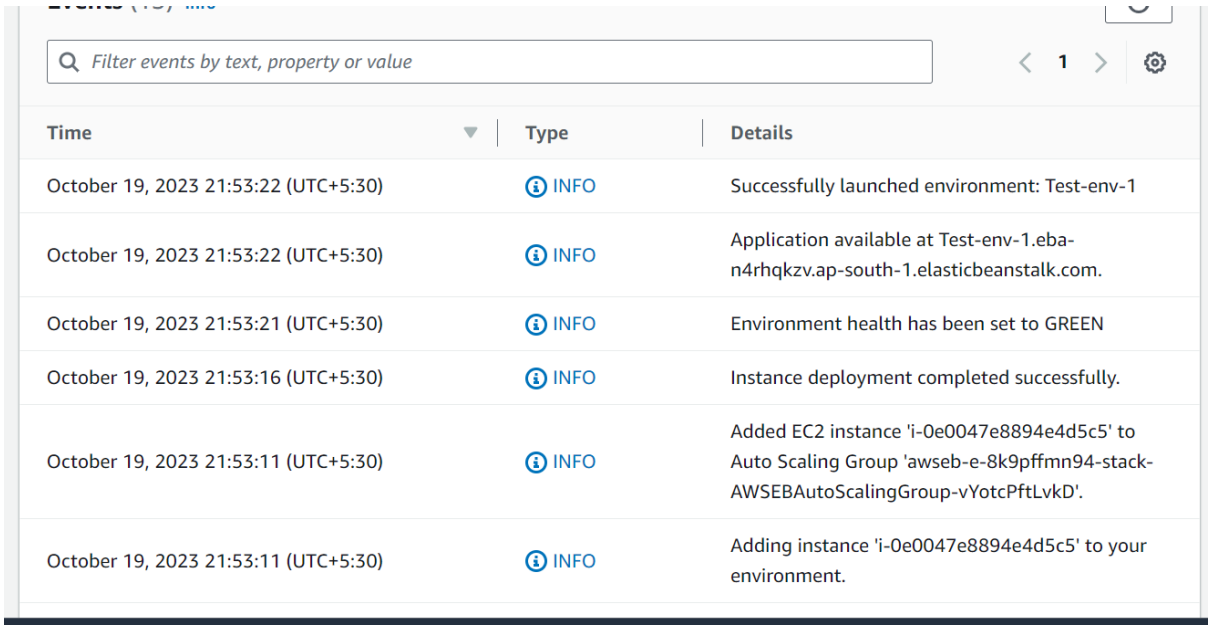
Wait till the health turns Green



We can see the processes building here



Time	Type	Details
October 19, 2023 21:53:11 (UTC+5:30)	INFO	Instance deployment successfully generated a 'Procfile'.
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.



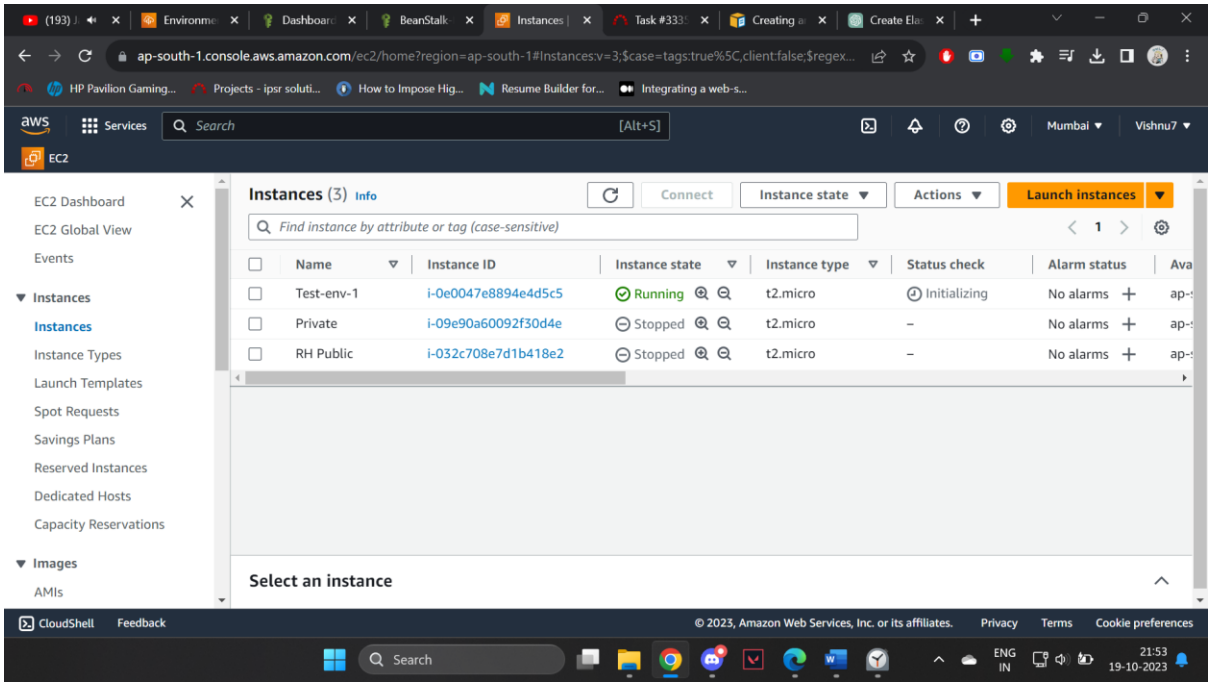
Filter events by text, property or value

1

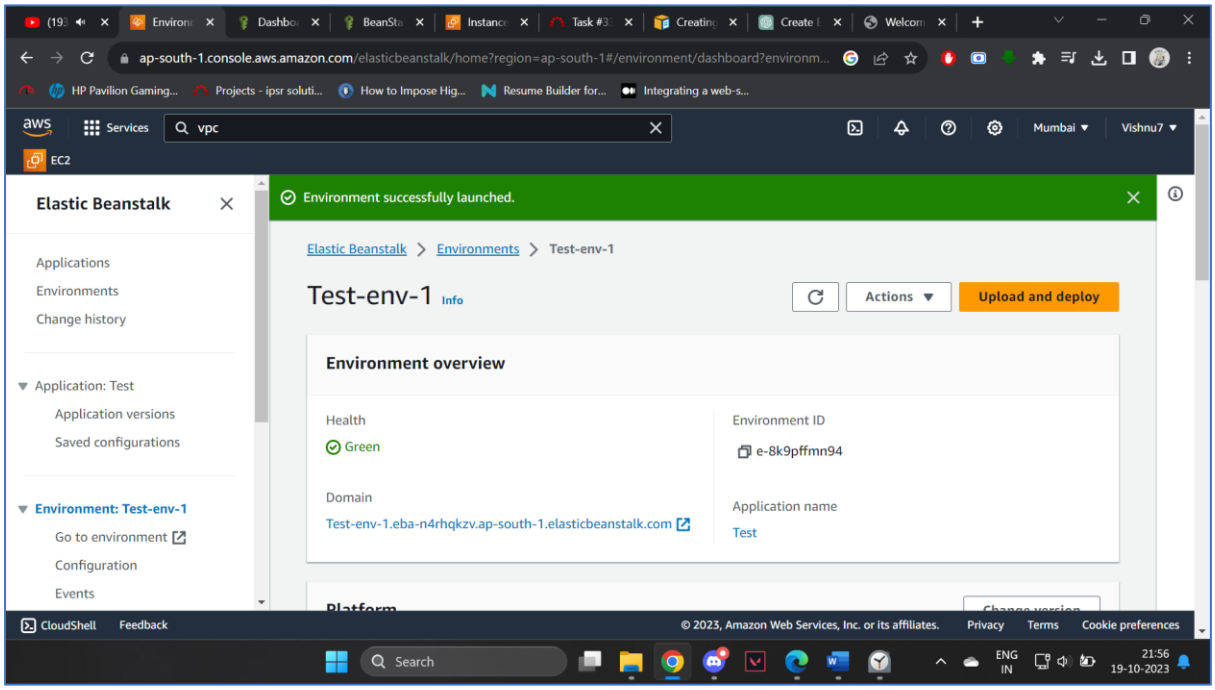
Time	Type	Details
October 19, 2023 21:53:22 (UTC+5:30)	INFO	Successfully launched environment: Test-env-1
October 19, 2023 21:53:22 (UTC+5:30)	INFO	Application available at Test-env-1.eba-n4rhqkzv.ap-south-1.elasticbeanstalk.com.
October 19, 2023 21:53:21 (UTC+5:30)	INFO	Environment health has been set 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

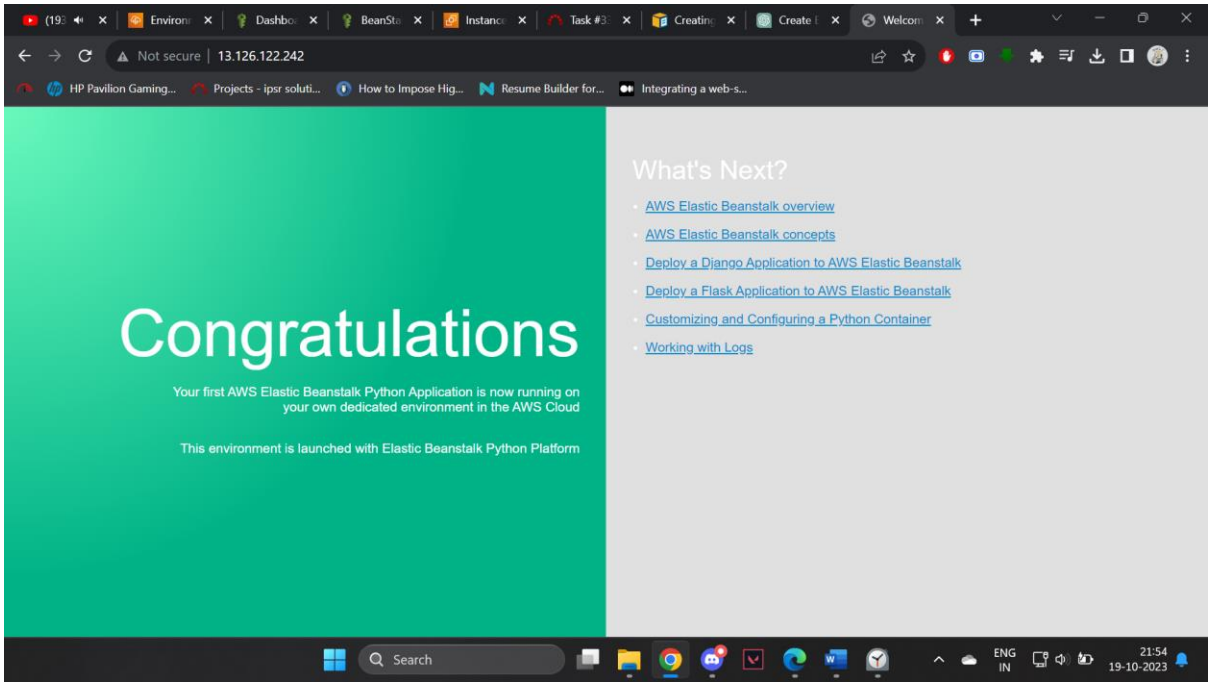
We can see our instance launched here



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.