

AWS Elastic Beanstalk

Elastic Beanstalk is a fully managed service provided by AWS that makes it easy to deploy and manage applications in the cloud without worrying about the underlying infrastructure. It is a **Platform as a Service (PaaS)** that simplifies deploying, managing, and scaling web applications and services.

How it works

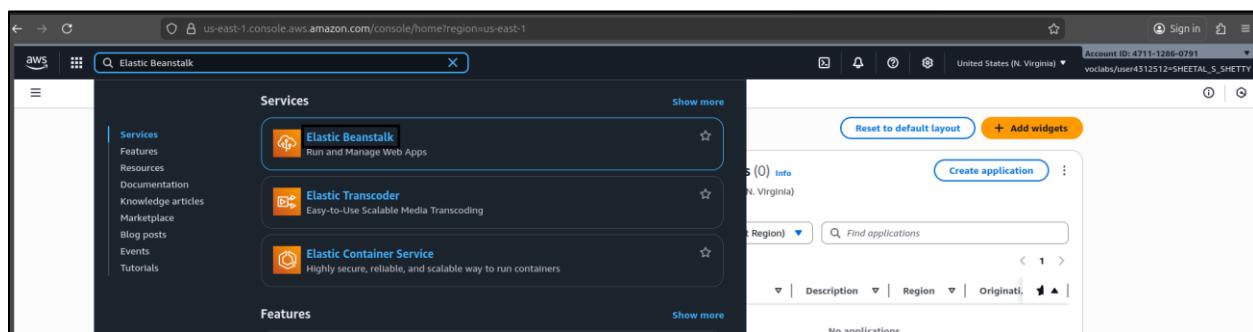
1. You upload your application code (Java, .NET, Node.js, Python, etc.).
2. Elastic Beanstalk automatically handles:
 - a. Provisioning and configuring servers (EC2 instances)
 - b. Setting up load balancers and Auto Scaling groups
 - c. Managing the application environment
 - d. Monitoring, logging, and health checks

Who is it for

- Developers who want to focus on writing code rather than managing infrastructure
- Small to medium-sized applications that need quick and easy deployment
- Teams that want a managed environment but still need some level of control when required

Lab:

Step1: In the console, in the search box, search and choose **Elastic Beanstalk**.



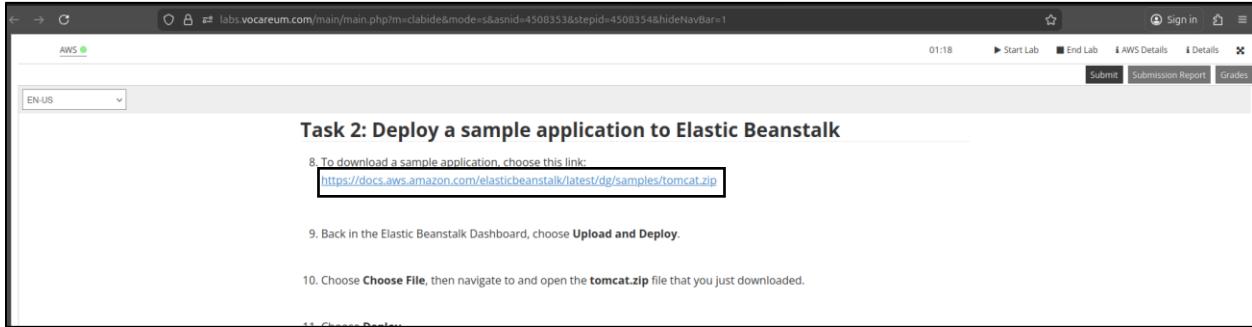
Under the **Environment**, click on the name of the environment. This opens the Dashboard page for the Elastic Beanstalk environment.

Go to EC2-> Click Load Balancer from the left navigation menu and access the Domain Name.

When you open the domain link in browser, AWS launches the EC2 instance with an application server. However, since no application code has been deployed to the Beanstalk environment yet, the page will not display any content. Instead, it will show an **HTTP Status 404 – Not Found** message. This is expected behavior until the application is deployed.

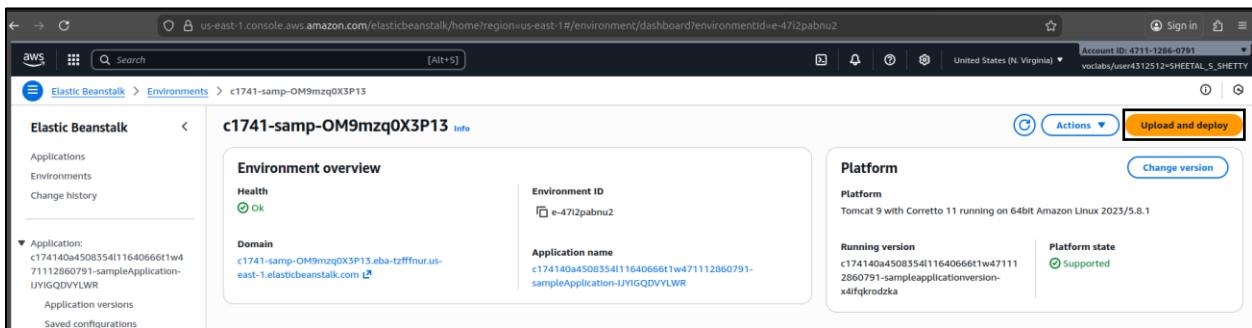
Step2: Deploying a sample application to Elastic Beanstalk.

Go to the AWS current lab instruction page. There, you will find a link to download the sample **tomcat.zip** file. Click on the link, and the **tomcat.zip** file will be downloaded to your system.

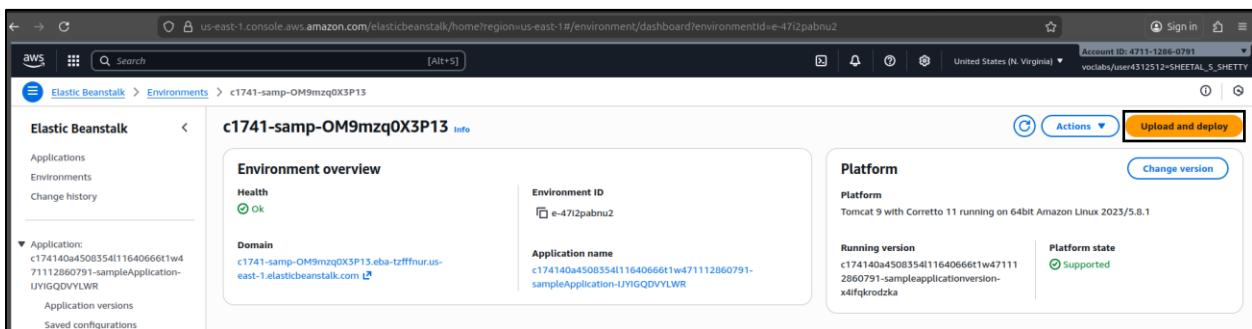


The screenshot shows a browser window with the URL labs.vocareum.com/main/main.php?m=clabide&mode=s&asnid=4508353&stepid=4508354&hideNavBar=1. The page title is "Task 2: Deploy a sample application to Elastic Beanstalk". Step 8 instructs to "To download a sample application, choose this link: <https://docs.aws.amazon.com/elasticbeanstalk/latest/dg/samples/tomcat.zip>". Step 9 says "Back in the Elastic Beanstalk Dashboard, choose **Upload and Deploy**". Step 10 says "Choose File, then navigate to and open the **tomcat.zip** file that you just downloaded." Step 11 says "Choose Deploy".

After downloading, return to the Elastic Beanstalk dashboard and continue with the **Upload and Deploy** steps.

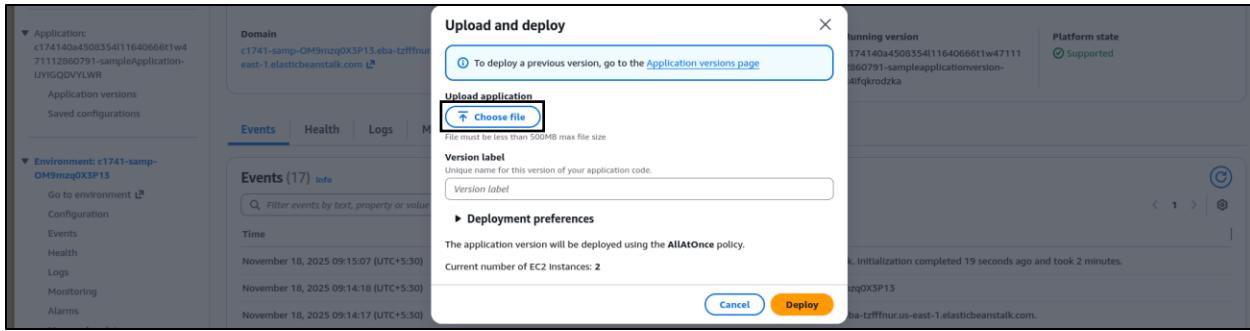


The screenshot shows the AWS Elastic Beanstalk console at us-east-1.console.aws.amazon.com/elasticbeanstalk/home?region=us-east-1#/environment/dashboard?environmentId=e-4712pabnu2. It displays the "Environment overview" for environment "c1741-samp-OM9mzq0X3P13". The "Actions" button is highlighted in yellow. Other visible details include the Environment ID "e-4712pabnu2", Application name "c174140a4508354l11640666t1w471112860791-sampleapplication-UYIGQDVYLWR", and Platform "Tomcat 9 with Corretto 11 running on 64bit Amazon Linux 2023/5.8.1".

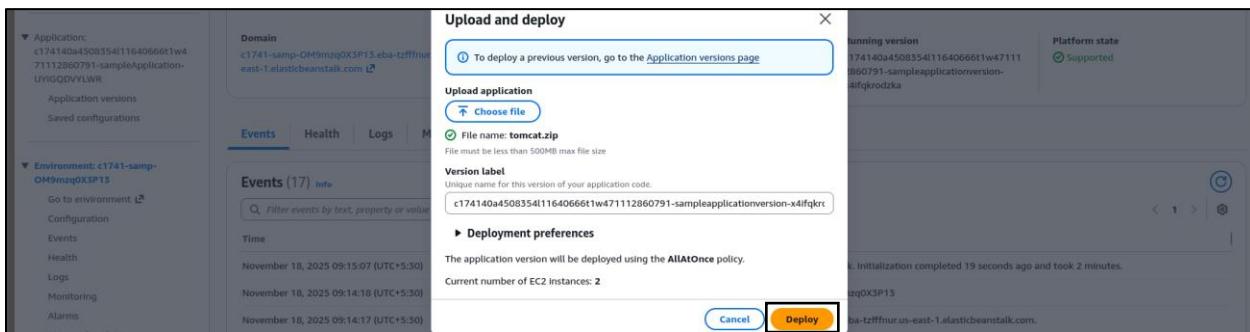


The screenshot shows the same AWS Elastic Beanstalk environment overview page as the previous one, but the "Upload and deploy" button is now highlighted in yellow. The rest of the interface remains the same, showing the environment details and the "Actions" button.

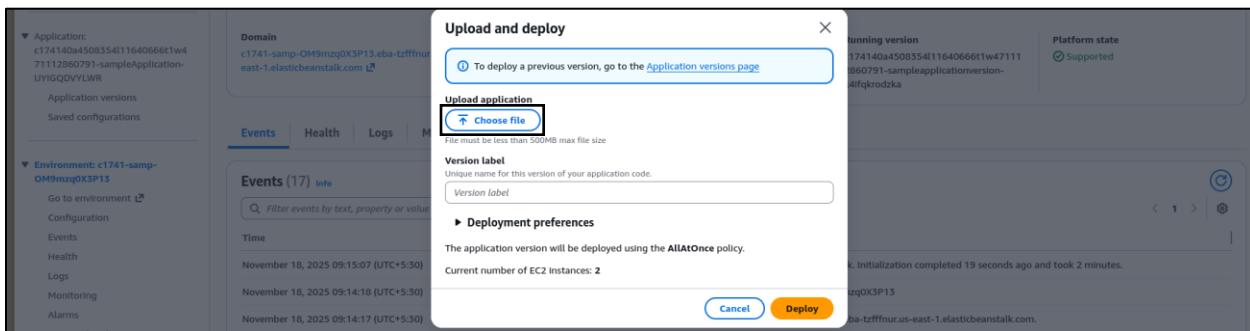
Select **Choose File**, then navigate to the **tomcat.zip** file you downloaded and open it.



Next, choose **Deploy**.



Elastic Beanstalk will take a minute or two to update your environment and deploy the application.



Step3: Once the deployment is complete, go to EC2-> Click **Load Balancer** from the left navigation menu and access the **Domain Name**.

Load balancers (1/1) What's new?

Elastic Load Balancing scales your load balancer capacity automatically in response to changes in incoming traffic.

Name	State	Type	Scheme	IP address type	VPC ID	Availability Zones	Security groups
awseb-e-4-AWSEBLoa-1...	-	classic	-	-	vpc-0cc3737f79056cdea	3 Availability Zones	sg-0f80544d2e50db4b...

Load balancer: awseb-e-4-AWSEBLoa-168FSLHRKYV7

DNS name info: awseb-e-4-AWSEBLoa-168FSLHRKYV7-1100723373.us-east-1.elb.amazonaws.com (A Record)

This Classic Load Balancer can be migrated to a next generation load balancer. Migration wizard uses your load balancer's current configurations to create a new load balancer. [Learn more](#) [Launch migration wizard](#)

Distribution of targets by Availability Zone (AZ)

For each enabled Availability Zone, you can view the number of registered instances and their current health states. Selecting any values here will apply the corresponding filter to the Target instances table.

The deployed **web application** will now be displayed.

Not Secure | http://awseb-e-4-awsebhoa-168fslhrkyv7-1100723373.us-east-1.elb.amazonaws.com

Congratulations

Your first AWS Elastic Beanstalk Application is now running on your own dedicated environment in the AWS Cloud

What's Next?

- [Learn how to build, deploy and manage your own applications using AWS Elastic Beanstalk](#)
- [AWS Elastic Beanstalk concepts](#)
- [Learn how to create new application versions](#)
- [Learn how to manage your application environments](#)

Download the AWS Reference Application

- [Explore a fully-featured reference application using the AWS SDK for Java](#)

AWS Toolkit for Eclipse

- [Developers may build and deploy AWS Elastic Beanstalk applications directly from Eclipse](#)
- [Get started with Eclipse and AWS Elastic Beanstalk by watching this video](#)
- [View all AWS Elastic Beanstalk documentation](#)