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SEMESTER: ODD SEMESTER 5

COURSE: Advance DevOPs (ITL504)

DATE: 25-08-2022

EXPERIMENT 11

1. What is AWS Elastic Beanstalk?

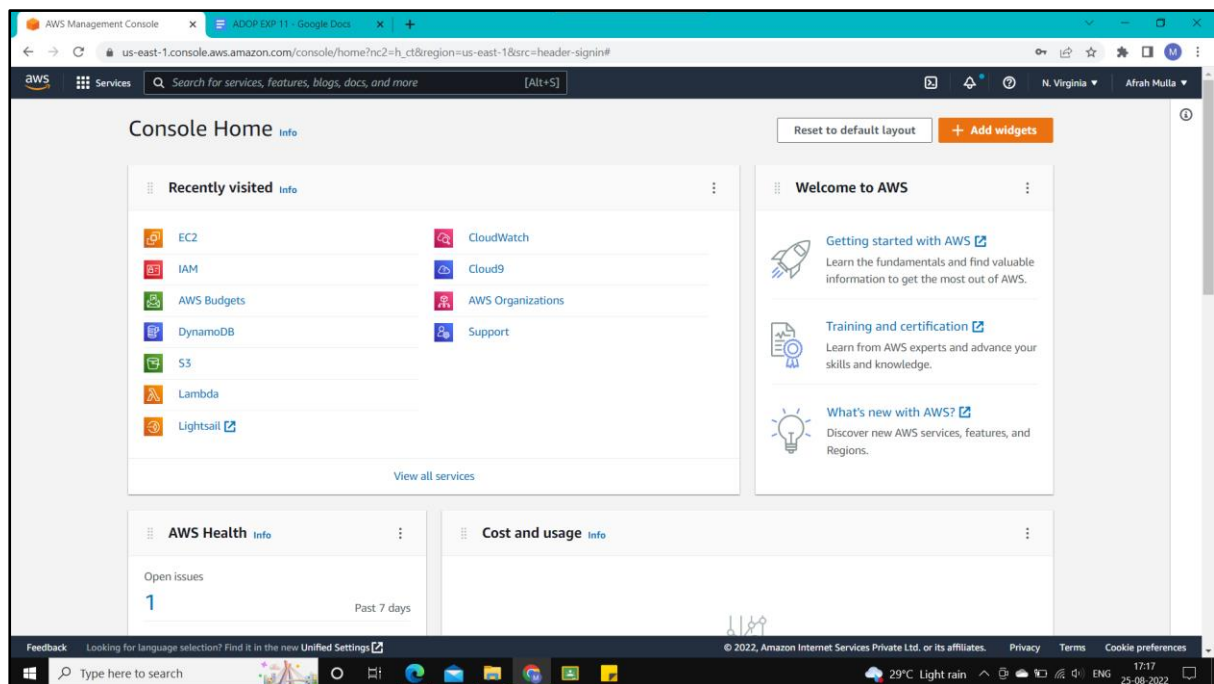
AWS Elastic Beanstalk is an easy-to-use service for deploying and scaling web applications and services developed with Java, .NET, PHP, Node.js, Python, Ruby, Go, and Docker on familiar servers such as Apache, Nginx, Passenger, and IIS. You can simply upload your code and Elastic Beanstalk automatically handles the deployment, from capacity provisioning, load balancing, auto-scaling to application health monitoring. At the same time, you retain full control over the AWS resources powering your application and can access the underlying resources at any time.

2. Who should use AWS Elastic Beanstalk?

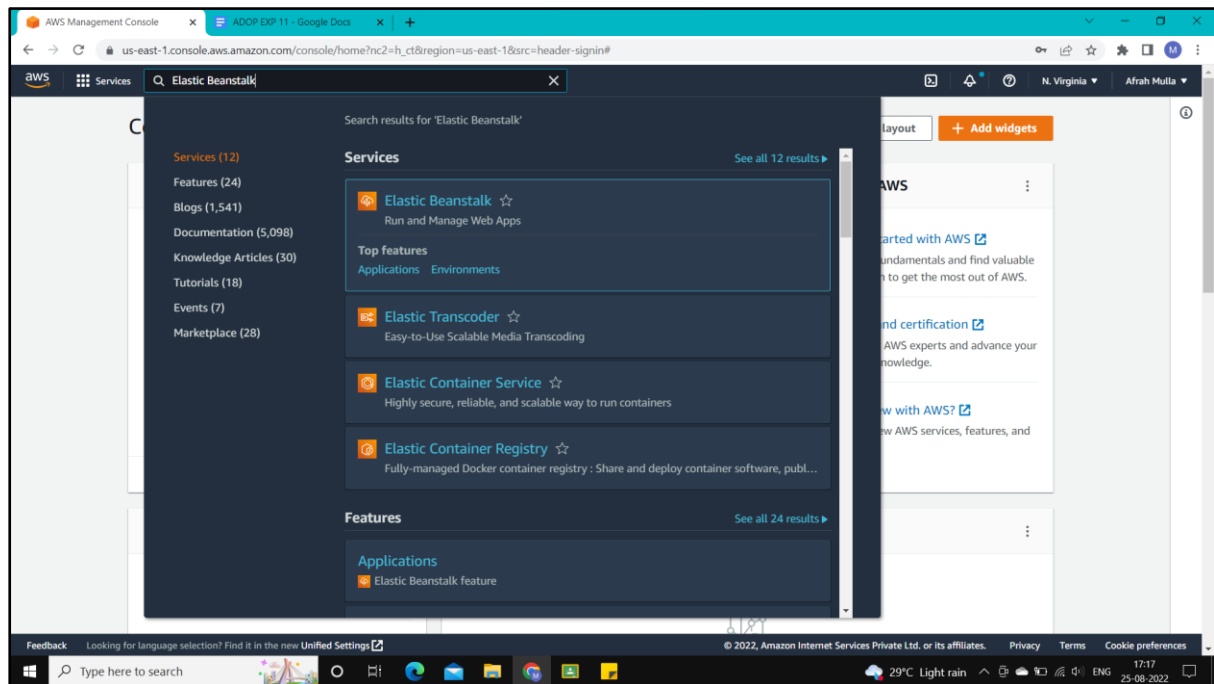
Those who want to deploy and manage their applications within minutes in the AWS Cloud. You don't need experience with cloud computing to get started. AWS Elastic Beanstalk supports Java, .NET, PHP, Node.js, Python, Ruby, Go, and Docker web applications.

3. Deploy a web Application [any language] using AWS Elastic Beanstalk.

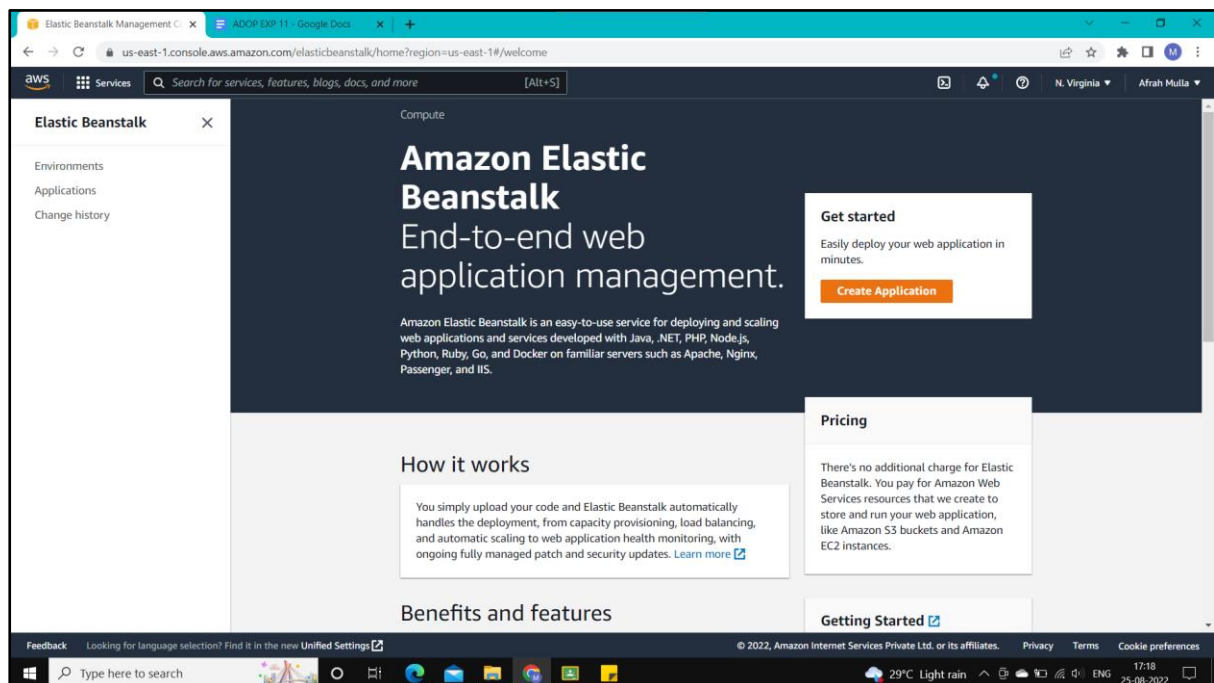
Step 1: AWS Management Console Dashboard



Step 2: Search for Elastic Beanstalk and select it



Step 3: Create Application

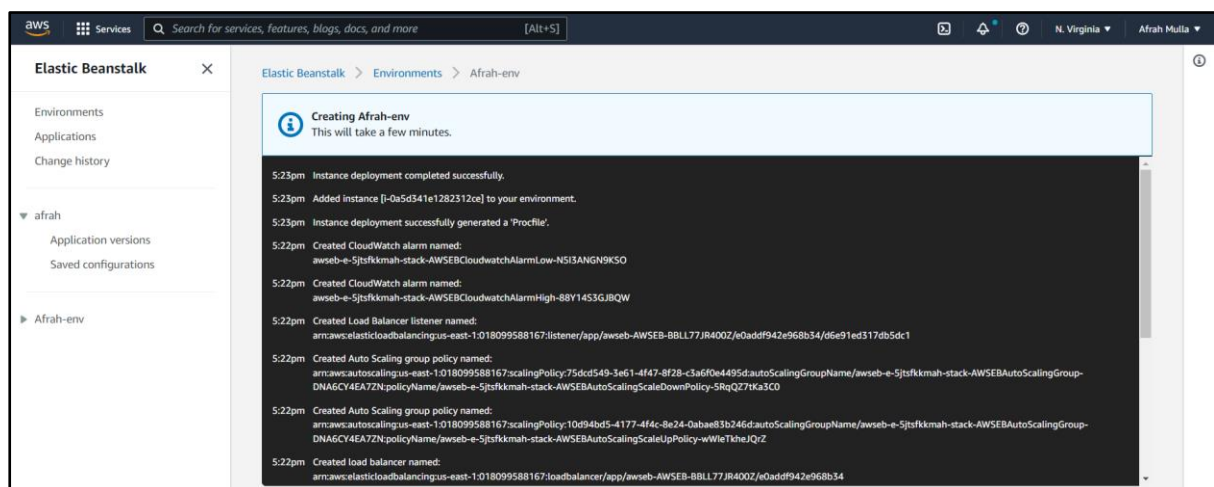
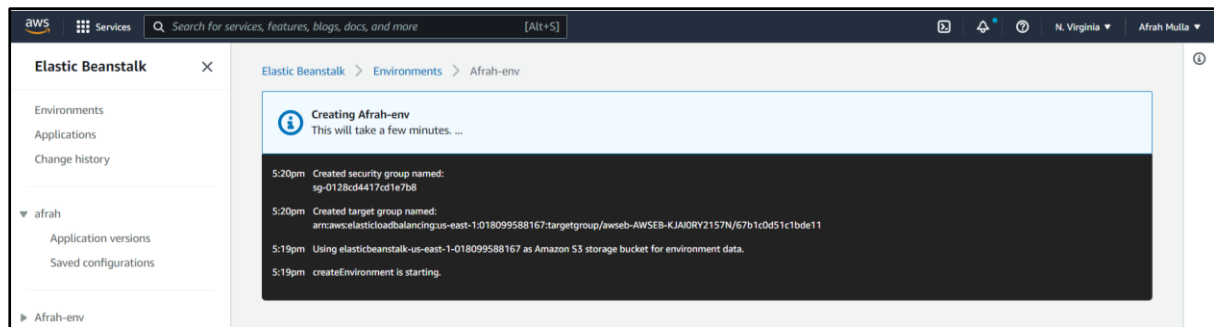


Step 4: Assign a name to your application -> Select Platform (Here, Python)
-> Application code: Sample code -> Create Application

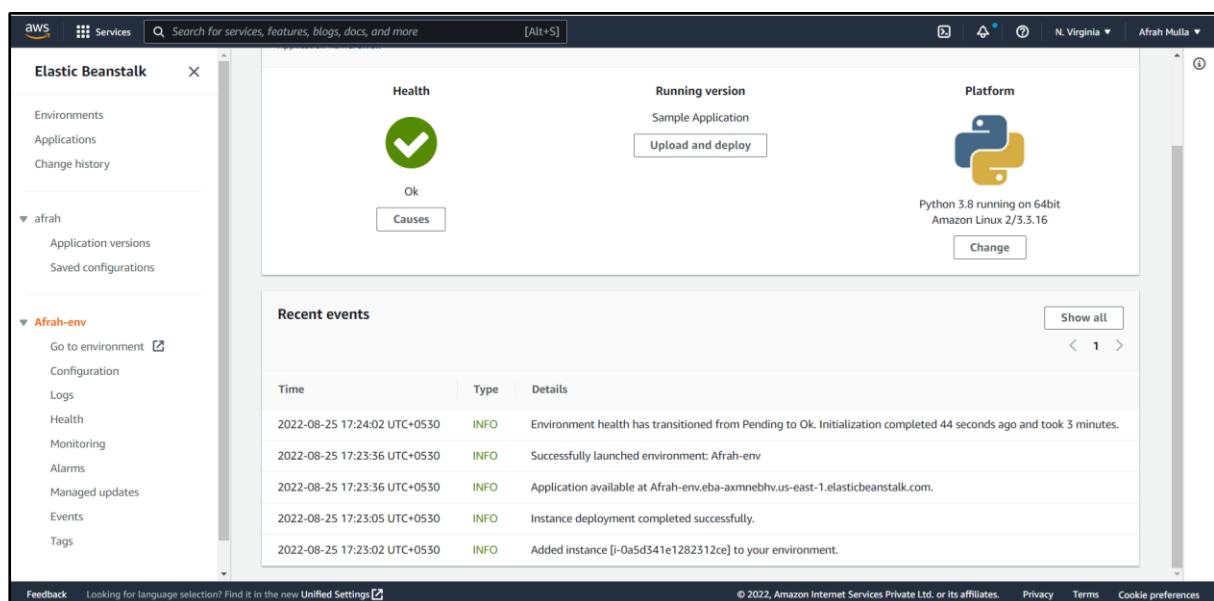
The screenshot shows the AWS Elastic Beanstalk console. The left sidebar has 'Environments', 'Applications', and 'Change history'. The main content area is titled 'Create a web app' and includes a sub-header 'Create a new application and environment with a sample application or your own code. By creating an environment, you allow Amazon Elastic Beanstalk to manage Amazon Web Services resources and permissions on your behalf. [Learn more](#)'. Below this is the 'Application information' section with a text input for 'Application name' containing 'afrah' and a note 'Up to 100 Unicode characters, not including forward slash (/)'. The 'Application tags' section follows, with a note 'Apply up to 50 tags. You can use tags to group and filter your resources. A tag is a key-value pair. The key must be unique within the resource and is case-sensitive. [Learn more](#)'. It contains a table with 'Key' and 'Value' columns and a 'Remove tag' button. At the bottom of the tags section is an 'Add tag' button and a note '50 remaining'. The footer shows '© 2022, Amazon Internet Services Private Ltd. or its affiliates.' and 'Privacy Terms Cookie preferences'.

The screenshot shows the AWS Elastic Beanstalk console. The left sidebar has 'Environments', 'Applications', and 'Change history'. The main content area is titled 'Platform' and includes a sub-header 'Platform'. Below this are three dropdown menus: 'Platform' (selected 'Python'), 'Platform branch' (selected 'Python 3.8 running on 64bit Amazon Linux 2'), and 'Platform version' (selected '3.3.16 (Recommended)'). The 'Application code' section follows, with two radio buttons: 'Sample application' (selected) and 'Upload your code'. Below the radio buttons are the instructions: 'Get started right away with sample code.' and 'Upload a source bundle from your computer or copy one from Amazon S3.' At the bottom of the 'Application code' section are three buttons: 'Cancel', 'Configure more options', and 'Create application'. The footer shows '© 2022, Amazon Internet Services Private Ltd. or its affiliates.' and 'Privacy Terms Cookie preferences'.

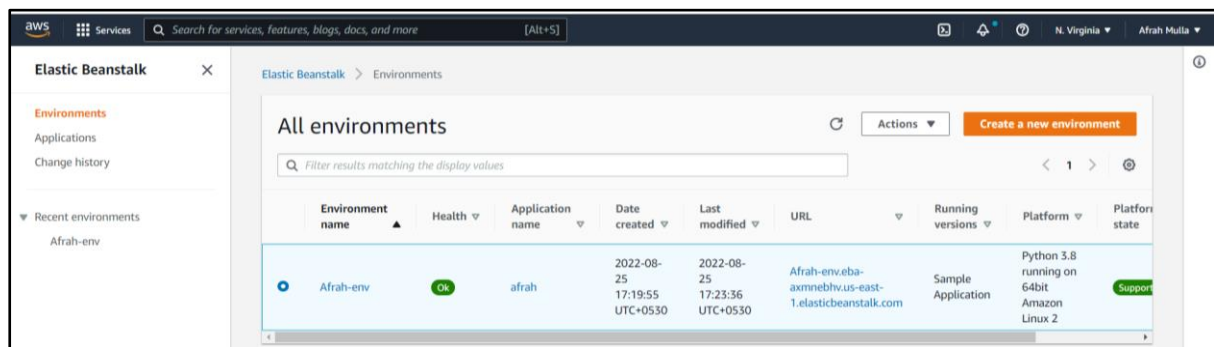
Step 5: The application will be in the process of creation and it might take a few minutes



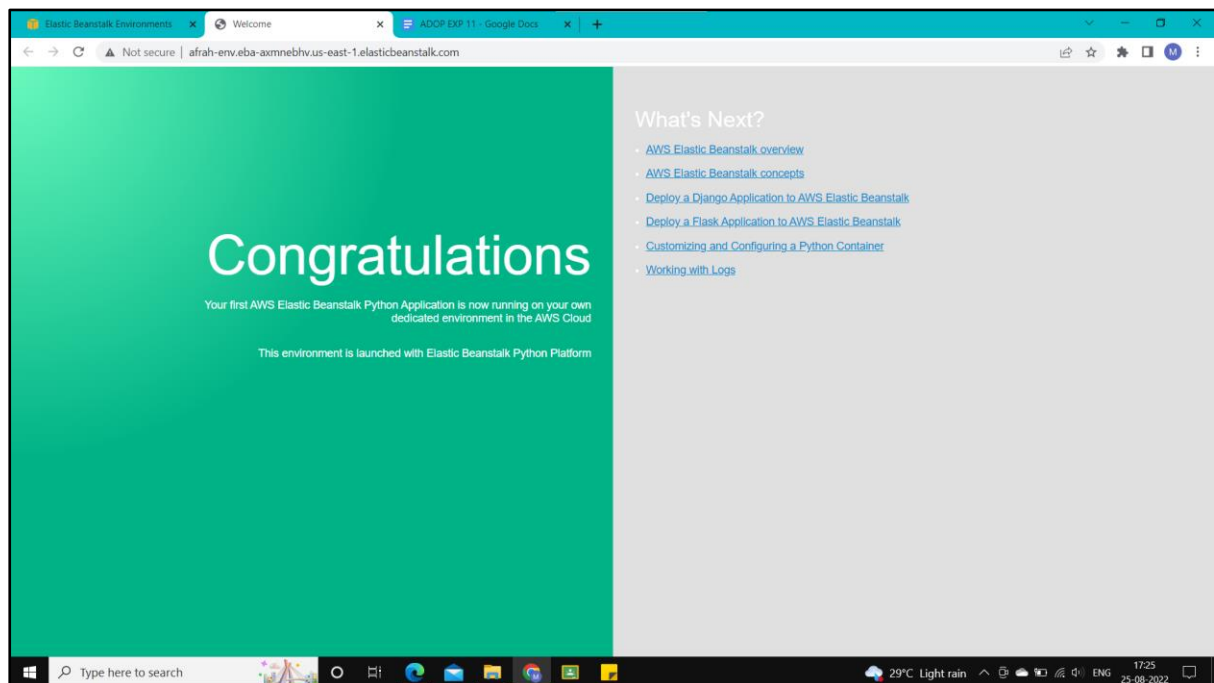
Step 6: The application (Python) has been created. The Events will be listed below



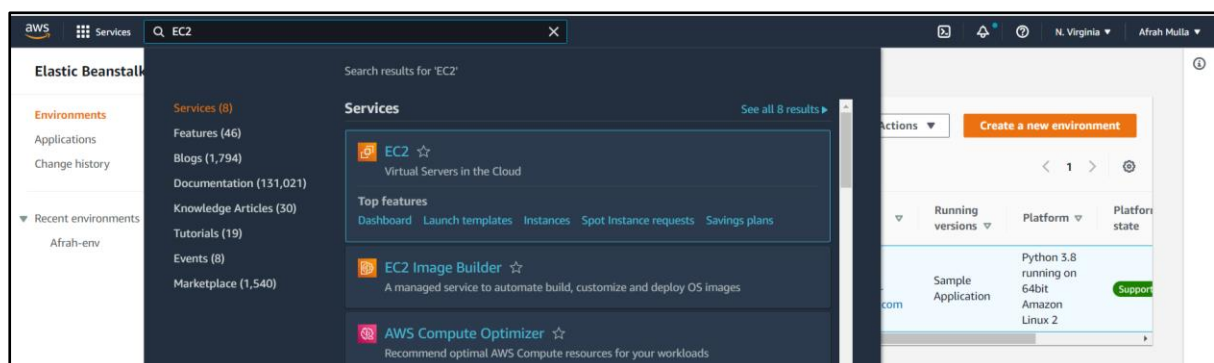
Step 7: In Environments, click on the URL of the environment created

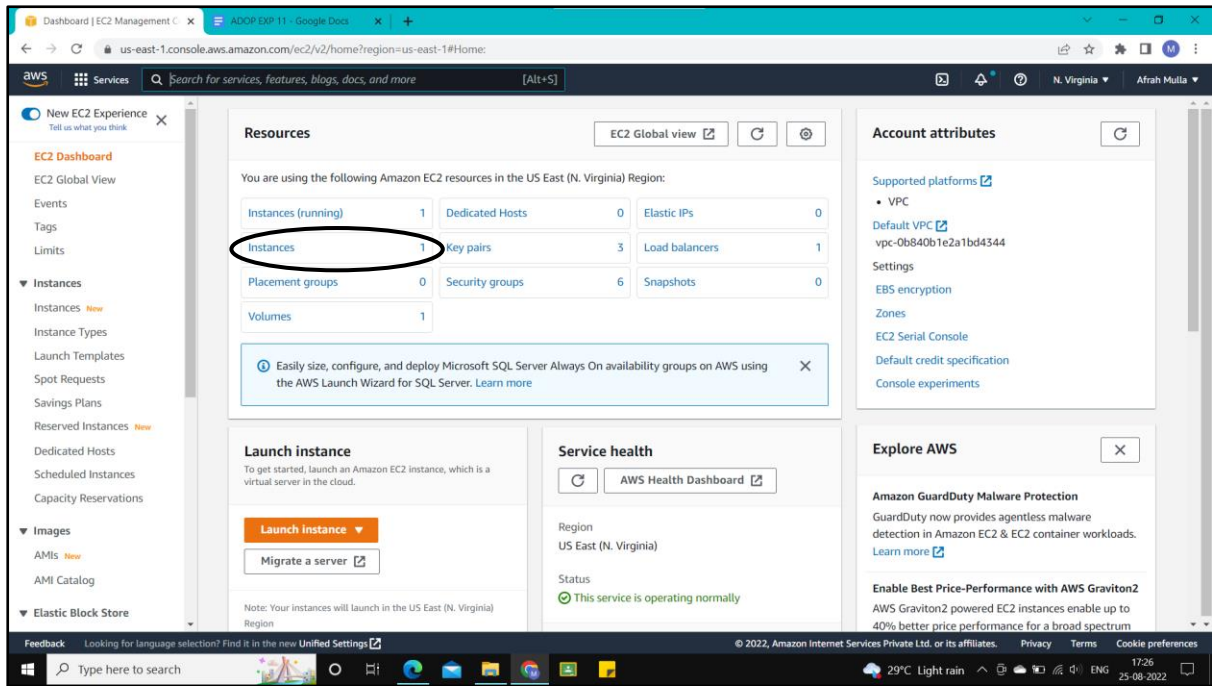


Step 8: It will redirect you to another page. Congratulations your Python application has been created

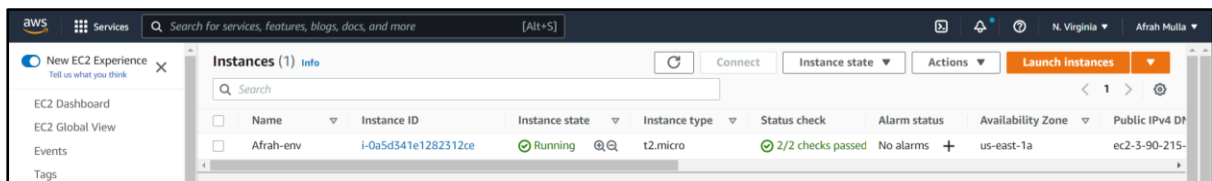


Step 9: Search for EC2 -> Select it -> Click on Instances

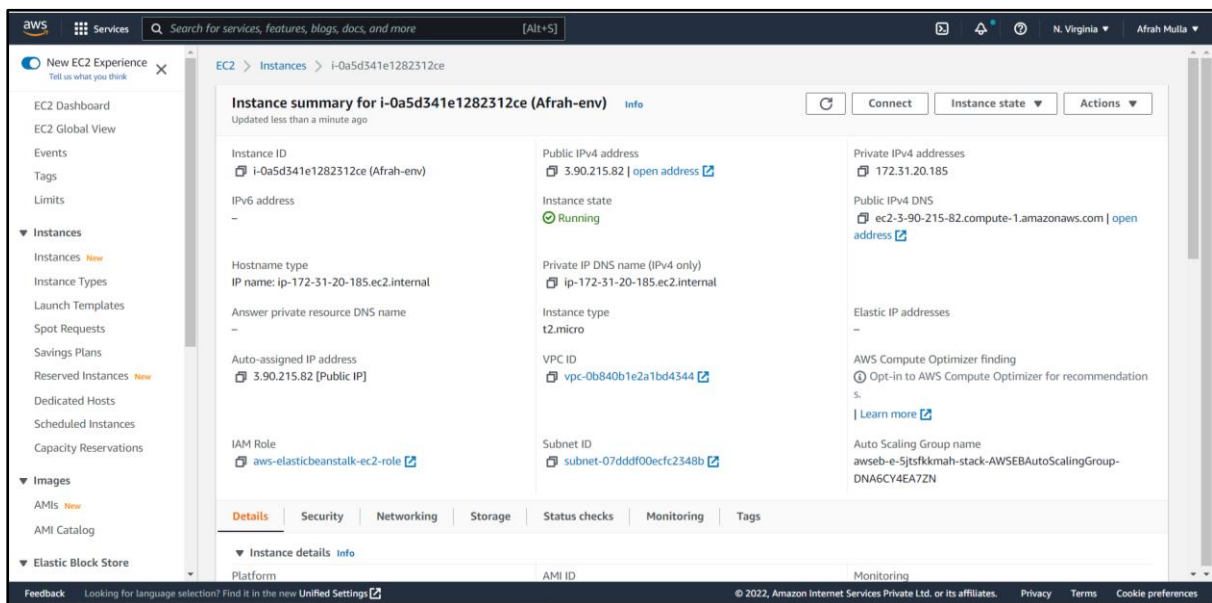


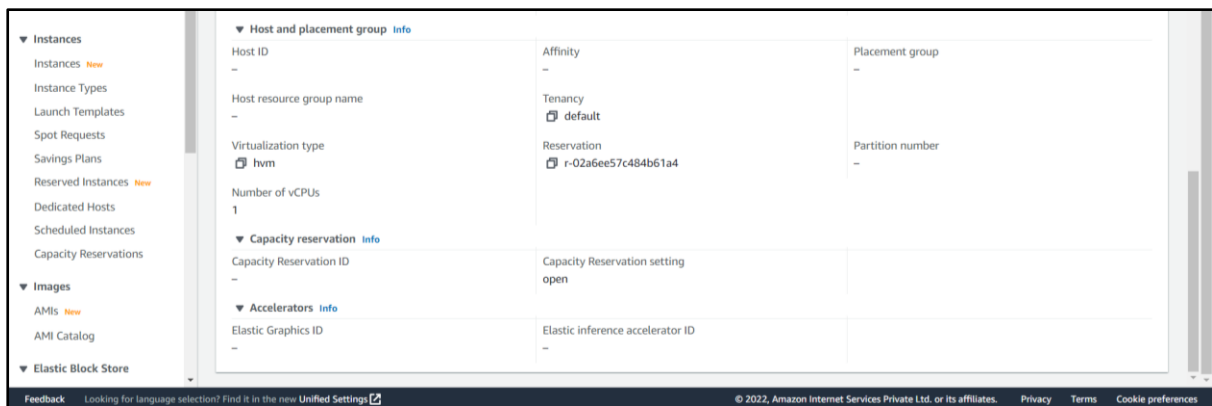
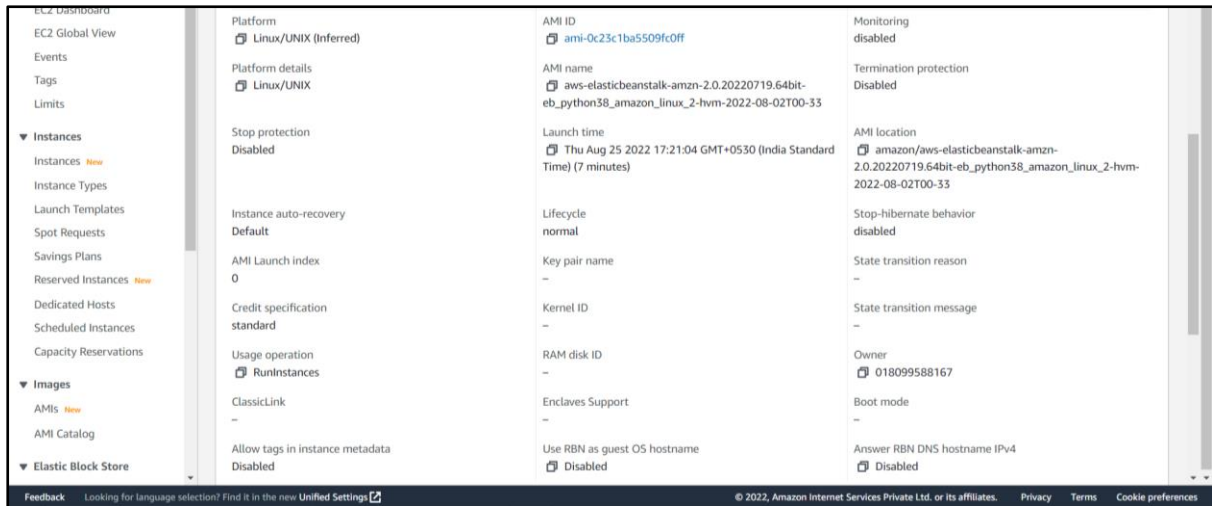


Step 10: An instance of Elastic Beanstalk will be running

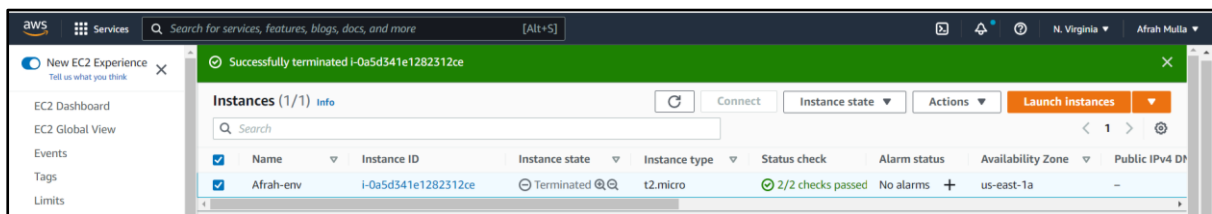
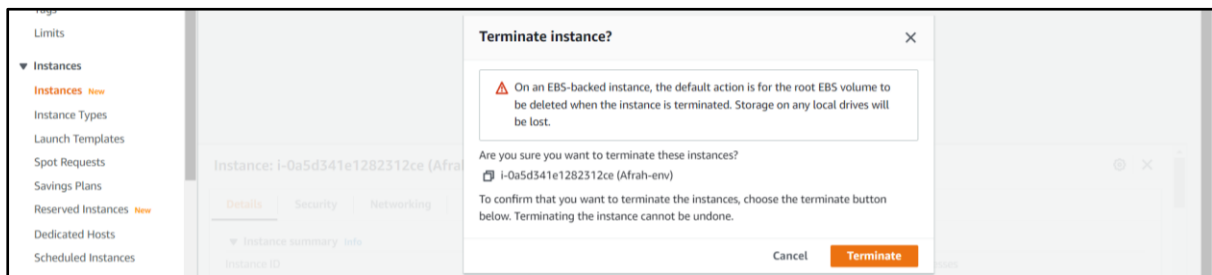
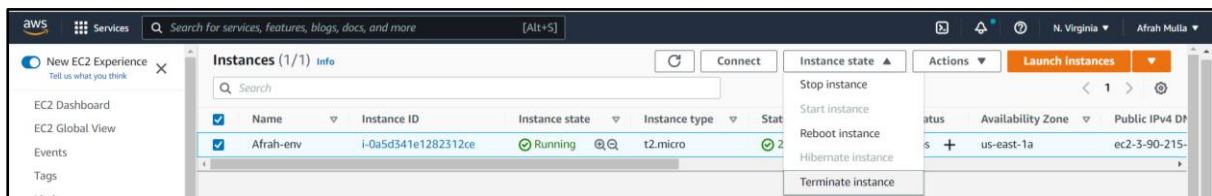


Step 11: All the details of the instance will be listed below

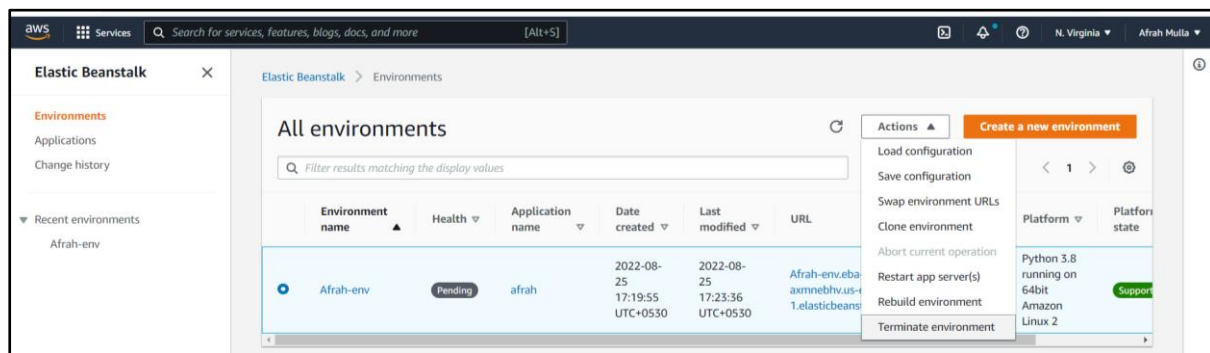




Step 12: Terminate the instance

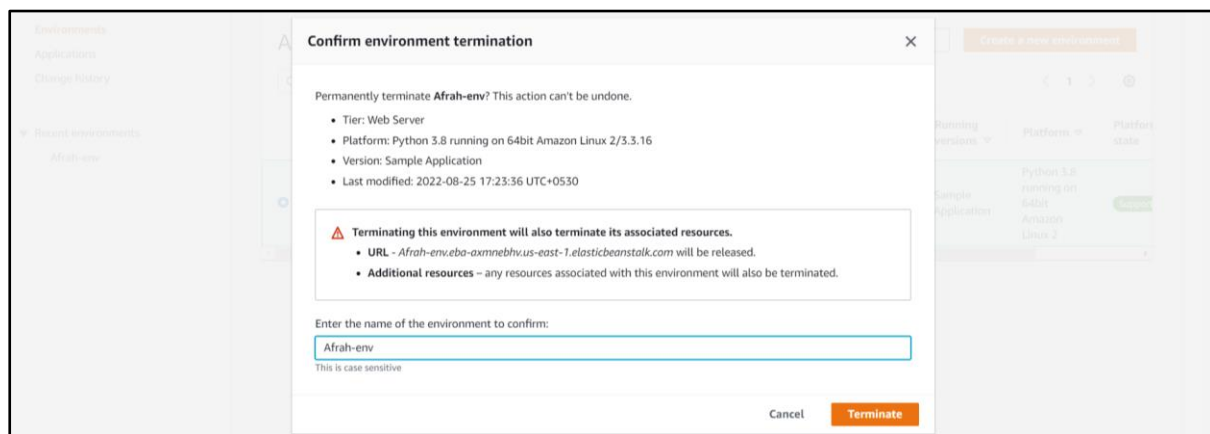


Step 13: Terminate the environment



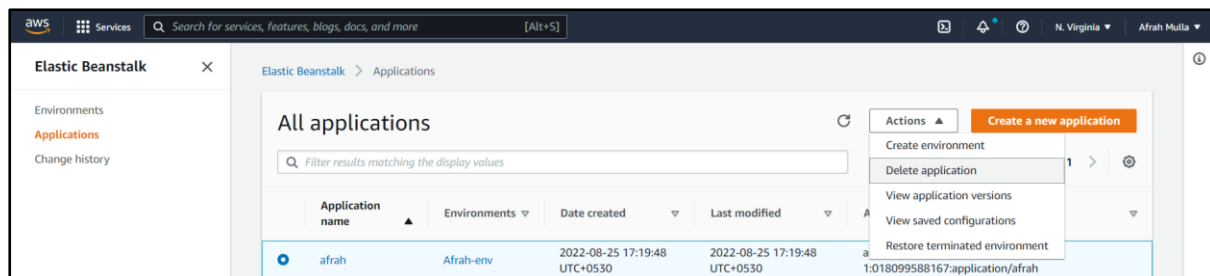
The screenshot shows the AWS Elastic Beanstalk console. The left sidebar has 'Elastic Beanstalk' selected. The main content area is titled 'All environments'. A table lists environments, with 'Afrah-env' highlighted. The 'Actions' menu is open, showing options like 'Load configuration', 'Save configuration', 'Swap environment URLs', 'Clone environment', 'Abort current operation', 'Restart app server(s)', 'Rebuild environment', and 'Terminate environment'.

Environment name	Health	Application name	Date created	Last modified	URL
Afrah-env	Pending	afrah	2022-08-25 17:19:55 UTC+0530	2022-08-25 17:23:36 UTC+0530	Afrah-env.eba-axmnebhv.us-east-1.elasticbeanstalk.com



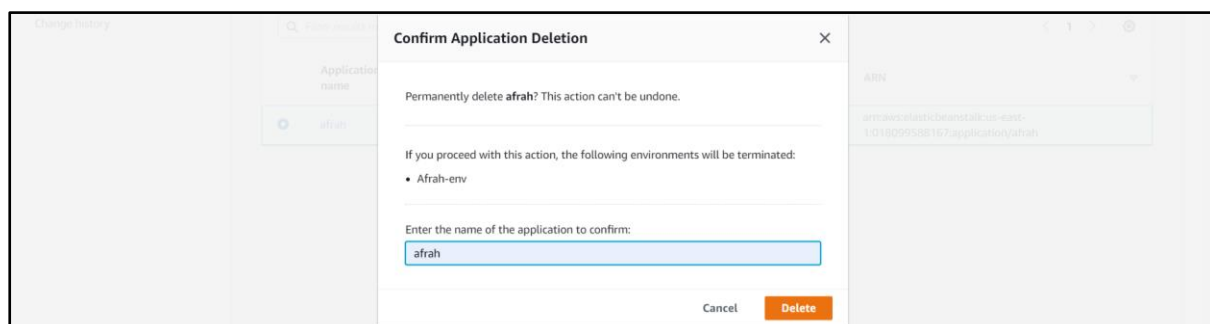
The screenshot shows the 'Confirm environment termination' dialog box. It asks for confirmation to permanently terminate 'Afrah-env'. It lists details: Tier: Web Server, Platform: Python 3.8 running on 64bit Amazon Linux 2/3.3.16, Version: Sample Application, and Last modified: 2022-08-25 17:23:36 UTC+0530. It also states that terminating the environment will also terminate its associated resources, including the URL and any associated resources. A text field contains 'Afrah-env' for confirmation.

Step 14: Delete the application



The screenshot shows the AWS Elastic Beanstalk console. The left sidebar has 'Elastic Beanstalk' selected. The main content area is titled 'All applications'. A table lists applications, with 'afrah' highlighted. The 'Actions' menu is open, showing options like 'Create environment', 'Delete application', 'View application versions', 'View saved configurations', and 'Restore terminated environment'.

Application name	Environments	Date created	Last modified	ARN
afrah	Afrah-env	2022-08-25 17:19:48 UTC+0530	2022-08-25 17:19:48 UTC+0530	arn:aws:elasticbeanstalk:us-east-1:10180995208167:application/afrah



The screenshot shows the 'Confirm Application Deletion' dialog box. It asks for confirmation to permanently delete 'afrah'. It states that if the action is proceeded with, the following environments will be terminated: Afrah-env. A text field contains 'afrah' for confirmation.