PARSHVANATH CHARITABLE TRUST'S

A. P. Shah Institute of Technology

Thane, 400615

Academic Year: 2022-23

Department of Computer Engineering

CSL605 SKILL BASED LAB COURSE: CLOUD COMPUTING

Mini Project Report

- **Title of Project** : **News Summarizer and Analyzer using EC2**

- **Year and Semester** : **T.E. (Sem VI)**

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Abstract

A summary condenses a lengthy document by highlighting salient features. It helps the reader to understand completely just by reading a summary so that the reader can save time and also can decide whether to go through the entire document. Summaries should be shorter than the original article so make sure to select only pertinent information to include the article. The main goal of a newspaper article summary is, the readers to walk away with knowledge on what the newspaper article is all about without the need to read the entire article. This work proposes a news article summarization system which access information from various local online newspapers automatically and summarizes information using heterogeneous articles. The rapid progresses in digital data acquisition techniques have led to a huge volume of news data available in the news websites. Most of such digital news collections lack summaries. An achievable solution to this problem is condensing the digital news collections and taking out only the essence in the form of an automatically generated summary which allows readers to make effective decisions in less time. The graph based algorithms for text summarization have been proven to be very successful over other methods for producing multi document summaries. The summary generated from knowledge graphs is more in line with human reading habits and possesses the logic of human reasoning. Due to the fast growing need of retrieving information in abstract form, we are proposing a novel approach for abstractive news summarization using the knowledge graphs to fulfill the need of having more accurate automatic abstractive news summarization and analyzer.

Introduction

News is one of the foremost critical channels for obtaining data. In any case, it is more troublesome to extricate comparisons in news articles than in audits. The viewpoints are exceptionally different in the news. They can be the time of the occasions, the individual included, the states of mind of members, etc. A news website is a platform that delivers news stories and other forms of content to its readers on a regular basis. These websites typically cover a wide range of topics, including local, national, and international news, as well as sports, entertainment, business, politics, and technology.

The content on a news website is typically created and published by a team of journalists and editors who are responsible for gathering information, conducting interviews, and reporting on breaking news events as they happen. Some news websites may also allow for user-generated content, such as comments and opinion pieces from readers.News websites often use a variety of formats to deliver their content, including written articles, photos, videos, and podcasts. They may also offer interactive features such as polls, quizzes, and forums to engage readers and encourage participation.In addition to providing news coverage, many news websites also offer features such as weather reports, traffic updates, and financial information. Some may also provide editorial content, including opinion pieces, editorials, and analysis of current events.Overall, news websites play a critical role in informing the public and keeping people up-to-date on important issues and events happening around the world.

EC2 enables users to rent virtual servers, also known as instances, in the cloud. These instances can be launched quickly and easily, and users can choose from a variety of instance types that offer different combinations of CPU, memory, storage, and networking capacity. EC2 instances are charged based on usage, with users only paying for the compute capacity that they consume.EC2 is a flexible and scalable service that enables users to easily add or remove instances as needed to meet the demands of their applications. Additionally, EC2 integrates with other AWS services, such as Amazon Simple Storage Service (S3), Amazon Relational Database Service (RDS), and Amazon Elastic Load Balancing (ELB), to provide a complete and customizable cloud computing environment. Overall, EC2 provides a cost-effective and flexible way for businesses and organizations to deploy and manage computing resources in the cloud, without having to invest in their own physical servers or data centers.

Problem Statement :

In the current world situation when there is a rapid increase in technology, the data on the World Wide Web is increasing at a tremendous rate. However due to the hectic schedule of the people and an intense amount of news available on various different websites it becomes difficult for people to be daily updated with the knowledge of the surroundings. Also as the web is getting developed on a daily basis the news which might get surfaced on the web may not provide an overview of the news . We are not able to analyze what news should be read.

They want to leverage the benefits of AWS EC2 to achieve this goal. Our website will be hosted on Amazon Web Services (AWS) Elastic Compute Cloud (EC2) platform, which ensures fast and reliable performance and enables us to scale our resources to meet the needs of our growing audience.

Overall, EC2 provides a reliable, scalable, and cost-effective platform for running a news website. With its high availability, scalability, and security features, EC2 helps to ensure that readers can access the latest news at all times, while keeping costs low for website operators.

Objectives :

The main objectives of Amazon Elastic Compute Cloud (EC2) are:

1. Scalability: EC2 allows users to quickly and easily scale computing resources up or down to meet changes in demand. This means that users can add or remove instances as needed to handle sudden spikes in traffic or changes in workload.
2. Cost-effectiveness: EC2 offers a pay-as-you-go model, which means that users only pay for the computing resources they use. This eliminates the need for expensive upfront hardware investments or ongoing maintenance costs, making it a cost-effective way to run applications and workloads.
3. Reliability: EC2 provides high availability and redundancy options to ensure that applications and workloads are always available and running smoothly. This minimizes downtime and ensures that users can access their resources at all times.
4. Security: EC2 provides a secure infrastructure for hosting applications and workloads, with options for encrypting data, controlling access, and protecting against DDoS attacks. This ensures that data is secure and protected from unauthorized access.
5. Integration with other AWS services: EC2 integrates with other AWS services, such as Amazon S3 for storing data, Amazon RDS for databases, and Amazon CloudFront for content delivery. This makes it easy to build a complete and scalable infrastructure for running applications and workloads.

Description

Cloud services used in the project:

Amazon Elastic Compute Cloud (EC2) is a web service that provides resizable computing capacity in the cloud. It is part of Amazon Web Services (AWS), which is a collection of cloud computing services that make up the on-demand computing platform offered by Amazon.

Amazon Elastic Compute Cloud (EC2) can be used for a variety of purposes, including:

1. Hosting websites and web applications: EC2 instances can be used to host websites and web applications, providing a cost-effective way to serve traffic to users.
2. Running batch processing jobs: EC2 can be used to run batch processing jobs, such as video encoding or data analysis, on a large scale. Users can launch and manage instances as needed, and only pay for the compute capacity that they use.
3. Running backend services: EC2 instances can be used to run backend services for applications, such as databases, caching servers, or messaging systems.
4. Running big data and analytics workloads: EC2 can be used to run big data and analytics workloads, using services like Apache Hadoop, Spark, or Presto.

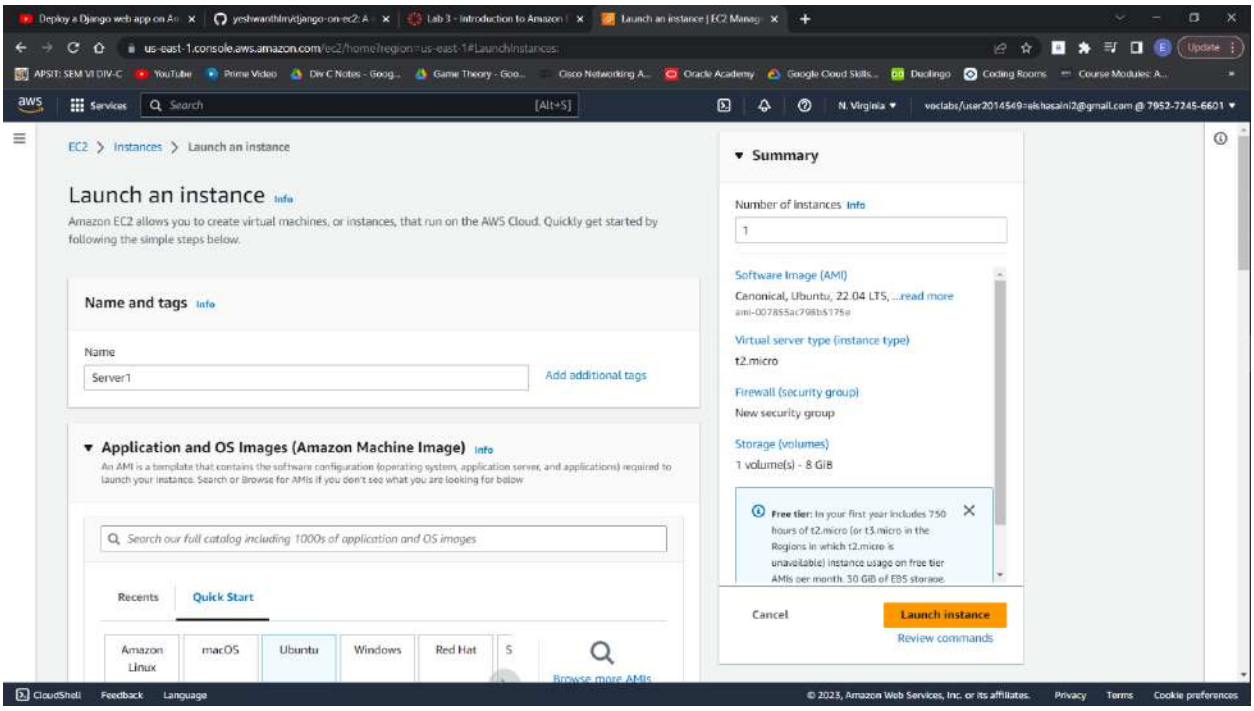
Amazon S3 (Simple Storage Service) is a cloud-based object storage service offered by Amazon Web Services (AWS). It allows users to store and retrieve large amounts of data from anywhere on the web, at any time, with virtually unlimited capacity.

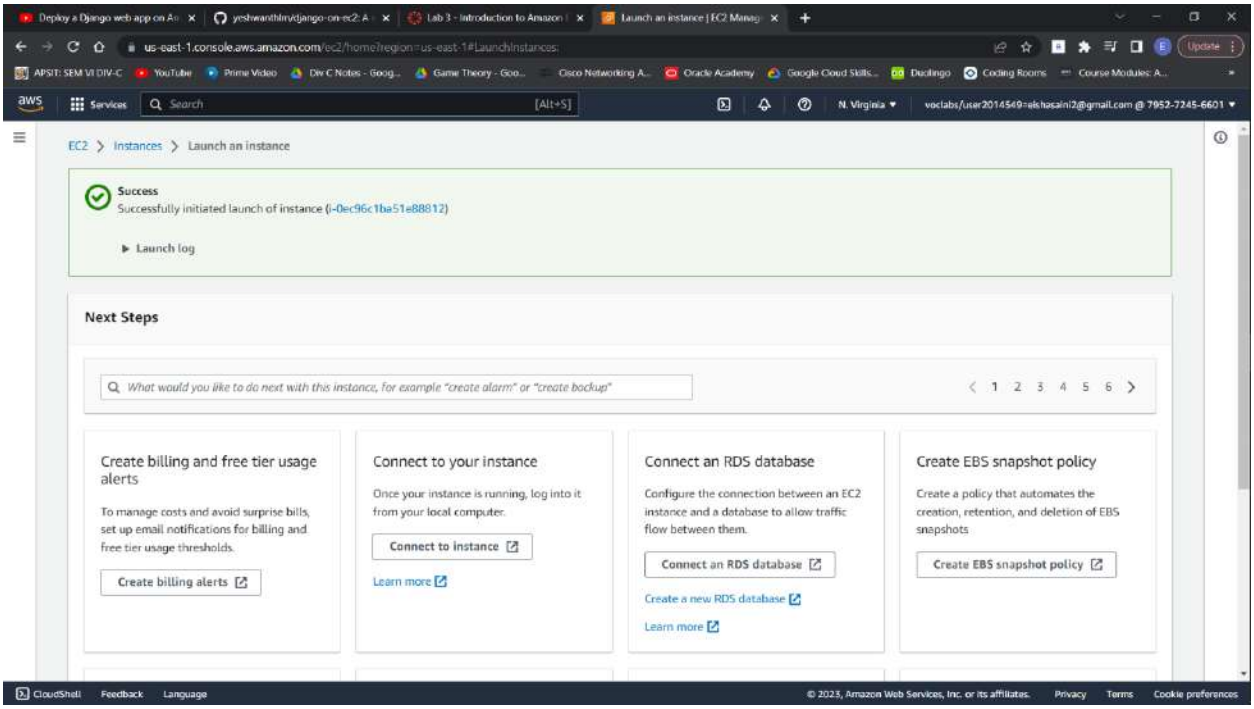
The primary objectives of Amazon S3 are:

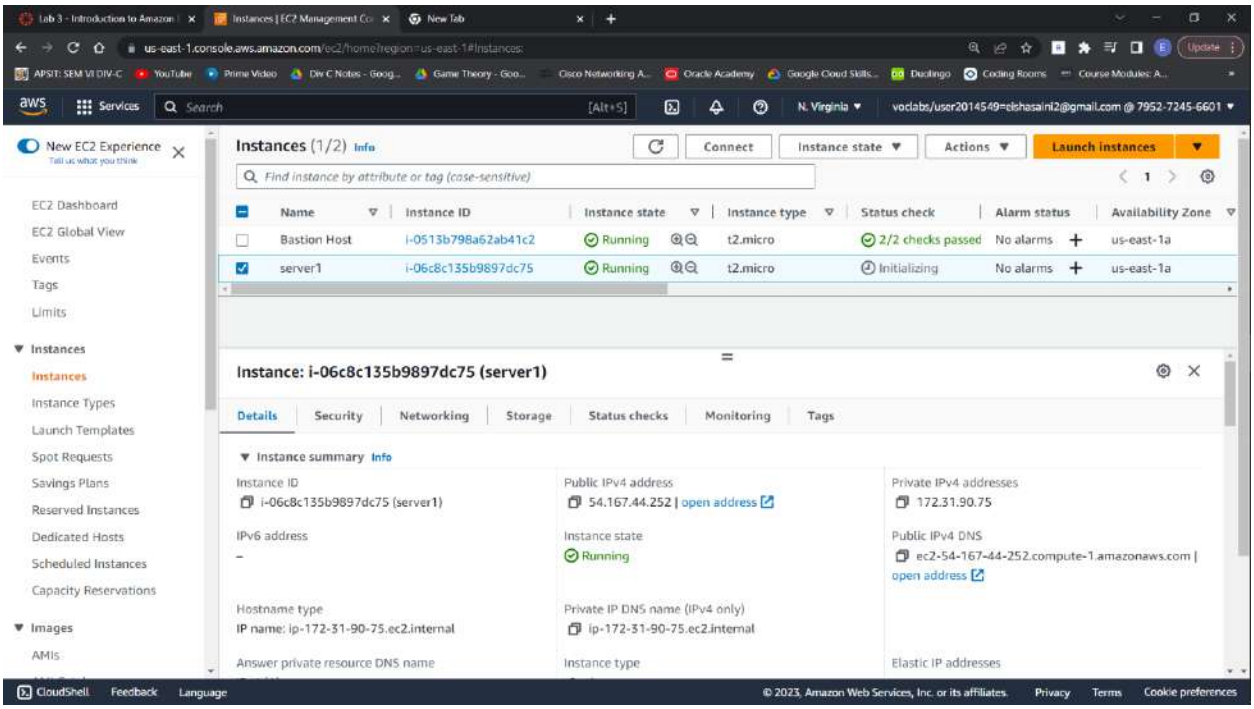
1. Scalability: S3 is designed to scale up or down automatically based on the storage needs of the user. This means that users can start with a small amount of storage and increase it as they need more, without having to worry about the underlying infrastructure.
2. Security: S3 provides various security features to help protect data from unauthorized access. These include access control lists (ACLs), bucket policies, and server-side encryption. Additionally, S3 supports compliance with various industry standards, such as HIPAA, PCI, and GDPR.
3. Ease of use: S3 provides a simple web interface and APIs for managing data, making it easy for users to upload, download, and manage their data. S3 also integrates with other AWS services, such as EC2 and Lambda, to provide a seamless experience for building and deploying applications in the cloud.

Implementation

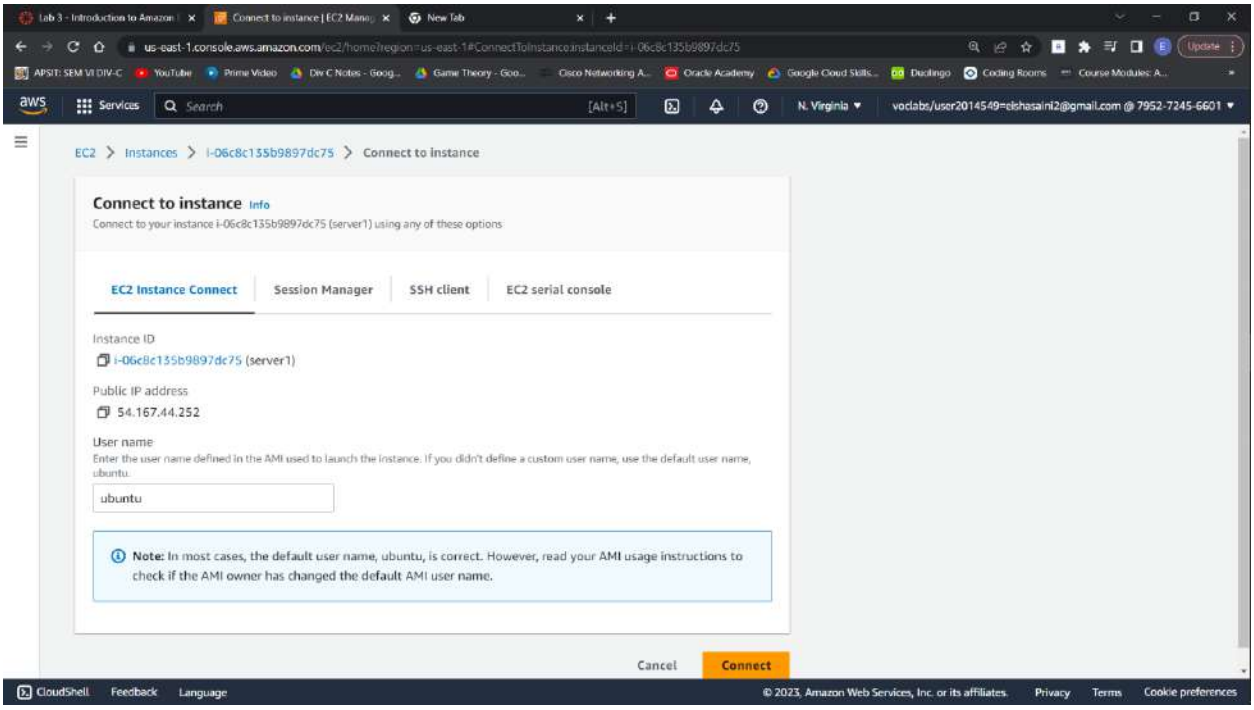
Create a Instance named Server1







Connect to Instance using EC2 Instance Connect



 # Installation Commands

sudo su

sudo apt-get update

sudo apt-get install git

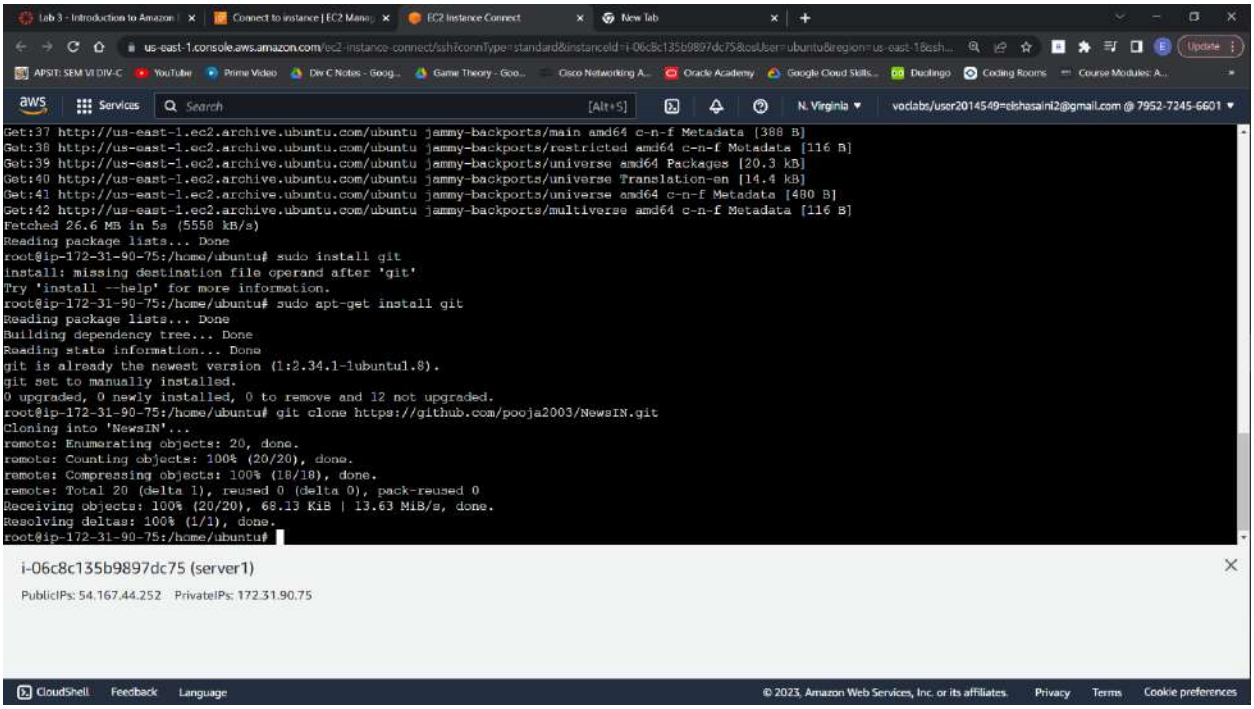
git clone [YOUR Repository]

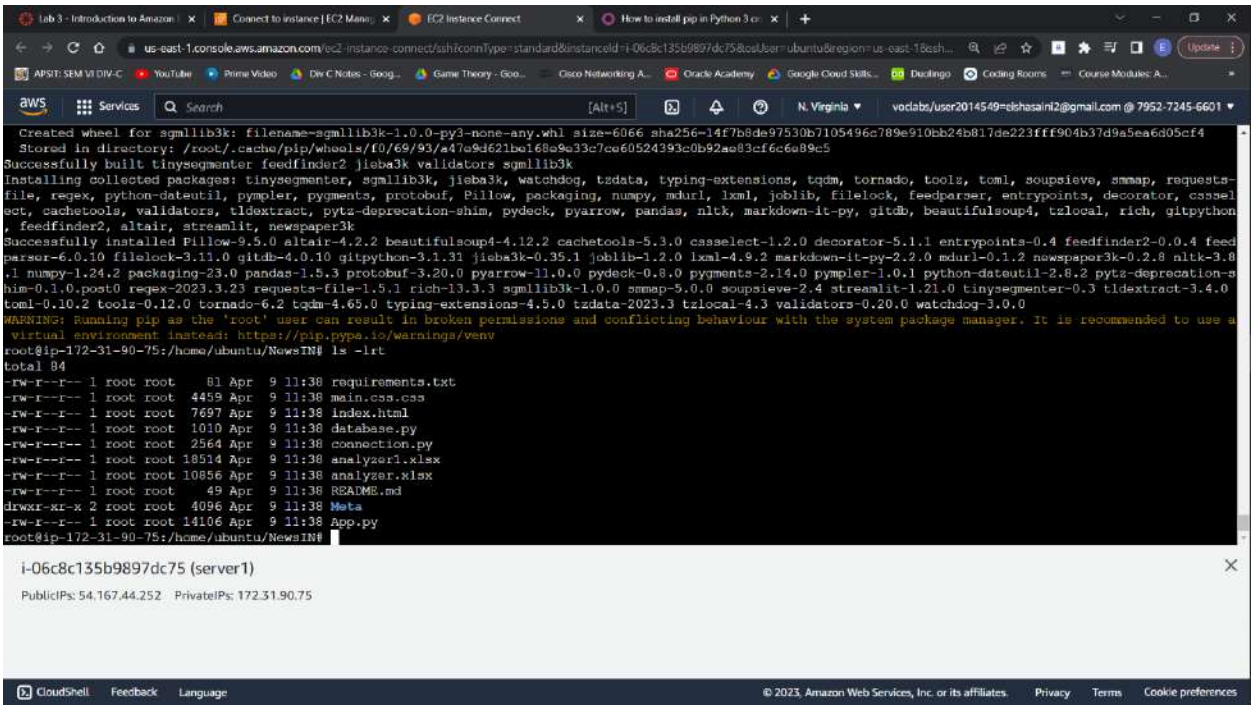
cd [YOUR Repository]

python3 -m pip install -r requirements.txt

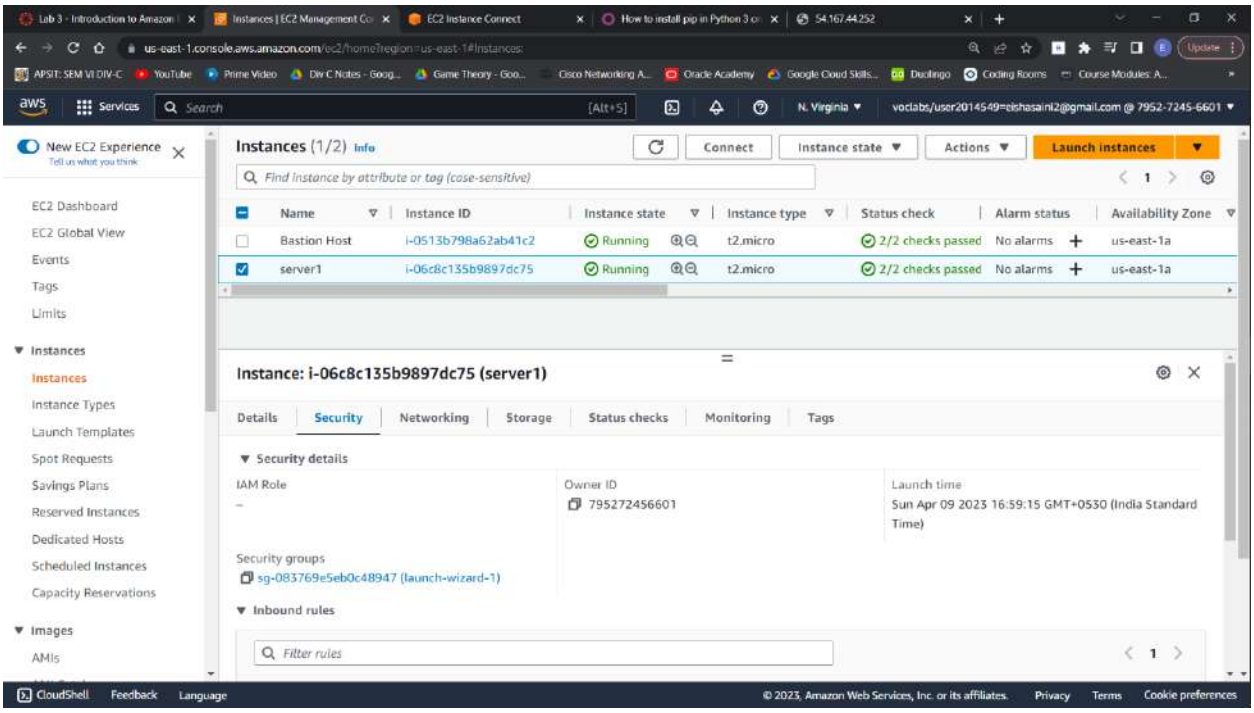
 # Run commands

python3 -m streamlit run filename.py

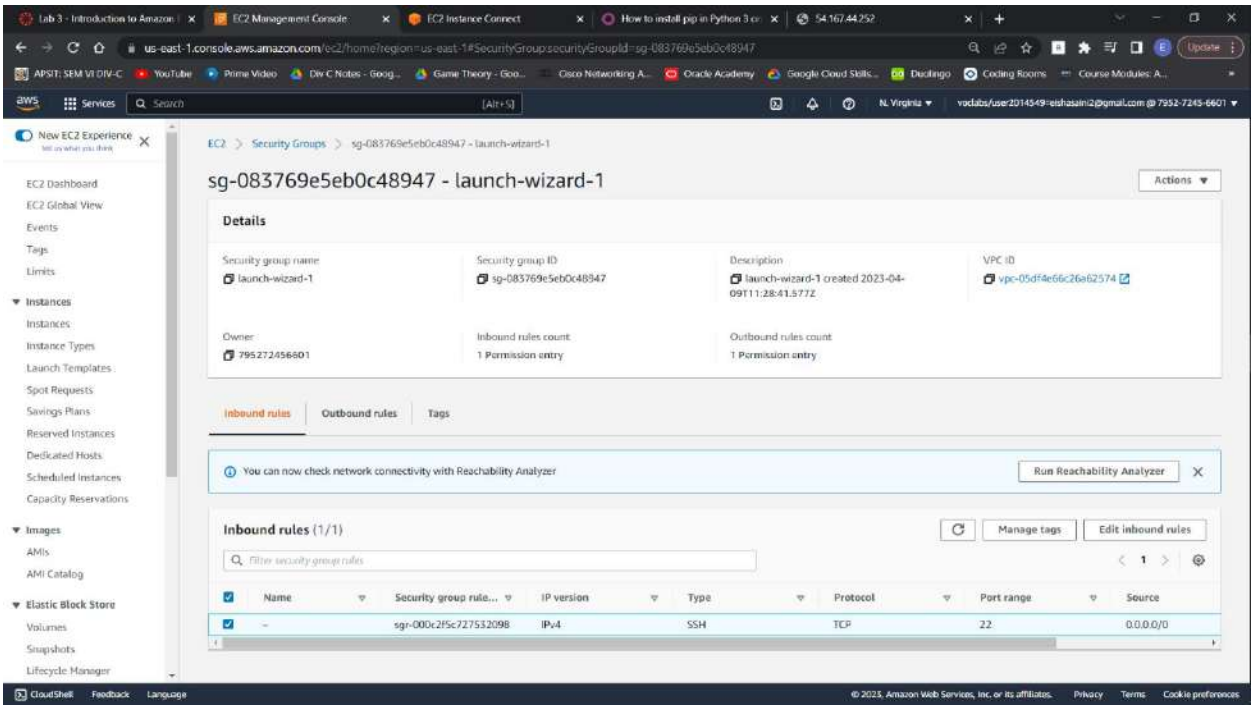




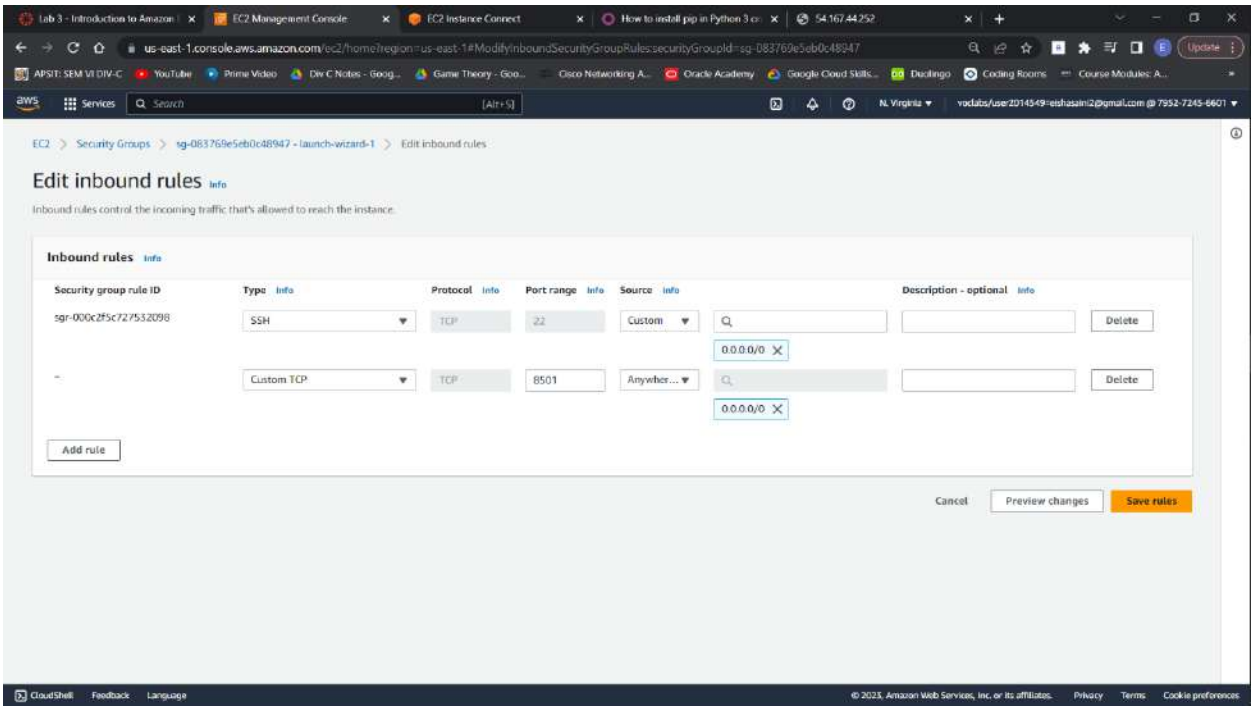
Select Security Groups

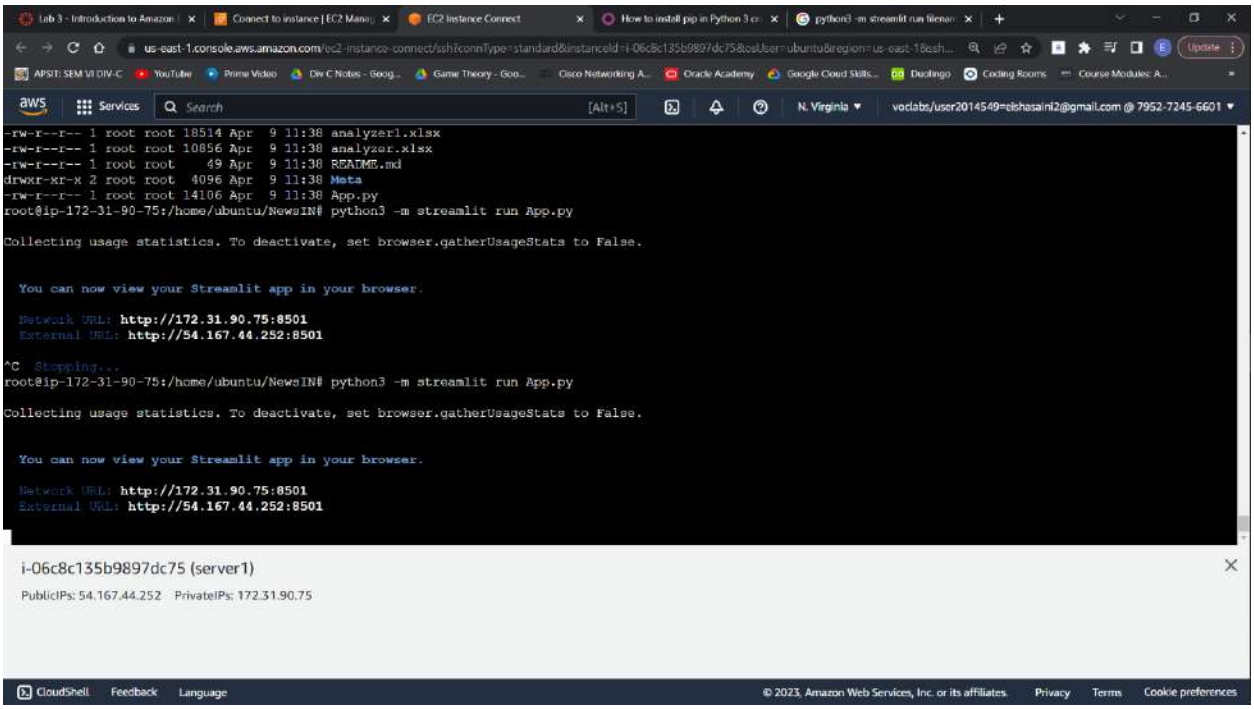


Edit Inbound Rules



Add rule : Type – Custom TCP , Port range – 8501





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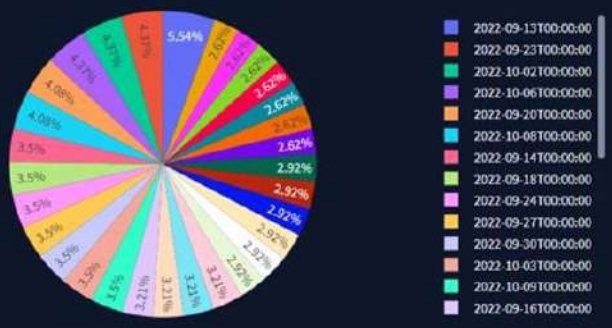
World



World

(1) Russia Says Its Goals In Ukraine May Be Achieved Through Talks: Report

Russia Says Its Goals In Ukraine May Be Achieved Through Talks: Report

The direction has not changed, the special military operation continues, Russia said. (File)The Kremlin was quoted as saying on Thursday that the goals of its "special military operation" in Ukraine are unchanged, but that they may be achieved through negotiations. "The direction has not changed, the special military operation continues, it continues in order for us to achieve our goals," Peskov was quoted as saying. While Russia has said before that it is prepared to negotiate, the repeated references this week to the possibility of dialogue are striking. Foreign Minister Sergei Lavrov said on Tuesday that Moscow was open to talks with the West, but the United States dismissed the statement as "posturing"."

Read more at Reuters...

Published Date: Thu, 13 Oct 2022 20:08:22 +0530

(2) Pair Of Levi's Jeans From 1880s Sells For $76,000 At An Auction In US

https://www.ndtv.com/world-news/russia-ukraine-war-russia-says-its-goals-in-ukraine-may-be-achieved-through-talks-report-3429095

NDTV LIVE TV LATEST INDIA COVID OPINION VIDEO CITIES WORLD OFFBEAT TRENDS

Russia Says Its Goals In Ukraine May Be Achieved Through Talks: Report

The comments by Kremlin spokesman Dmitry Peskov to Russian newspaper Izvestia were the latest in a series of statements this week stressing Moscow is open to talks - a change of tone that follows a series of humiliating defeats.

World | Reuters | Updated: October 13, 2022 8:16 pm IST

TRENDING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The direction has not changed, the special military operation continues, Russia said. (File)

Conclusion

In this project, we were able to accurately summarize the news and show the data on the User Interface. News was shown on the application according to the particular domain that was chosen, and many additional features were also available to assist the user acquire accurate information. The data has been shown in diagrammatic fashion using a variety of graphics.The user will be able to analyze the global condition with the aid of these graphs. Deploying a news website on Amazon Elastic Compute Cloud (EC2) provides a reliable, scalable, and cost-effective way to offer high-quality news coverage to readers. With its high availability, scalability, and security features, EC2 helps ensure that readers can access the latest news at all times while keeping costs low for website operators. EC2's integration with other AWS services, such as Amazon S3 for storing content, Amazon CloudFront for content delivery, and Amazon RDS for databases, makes it easy to build a complete and scalable infrastructure for a news website. Overall, deploying a news website on EC2 offers a flexible, scalable, and cost-effective way to provide reliable and high-quality news coverage to readers.

Before deploying a news website on Amazon Elastic Compute Cloud (EC2), there are several things to keep in mind:

1. Choose the right instance type: EC2 offers a range of instance types with different combinations of compute, memory, storage, and networking resources. It's important to choose the instance type that best meets the requirements of the news website.
2. Optimize the operating system: It's important to optimize the operating system to ensure that it's configured for maximum performance and security.
3. Configure security groups: EC2 security groups control traffic to and from the instance, so it's important to configure them correctly to ensure that the news website is secure.
4. Back up data: It's important to back up the website's data regularly to prevent data loss in case of a failure or disaster.
5. Choose the right region: EC2 has multiple regions, each with different availability zones. It's important to choose the region that best meets the needs of the website's readers and operators.

By keeping these things in mind, website operators can ensure that their news website is optimized for performance, security, and scalability before deploying it on Amazon EC2.