Experiment – 5

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ROLL NO: 64
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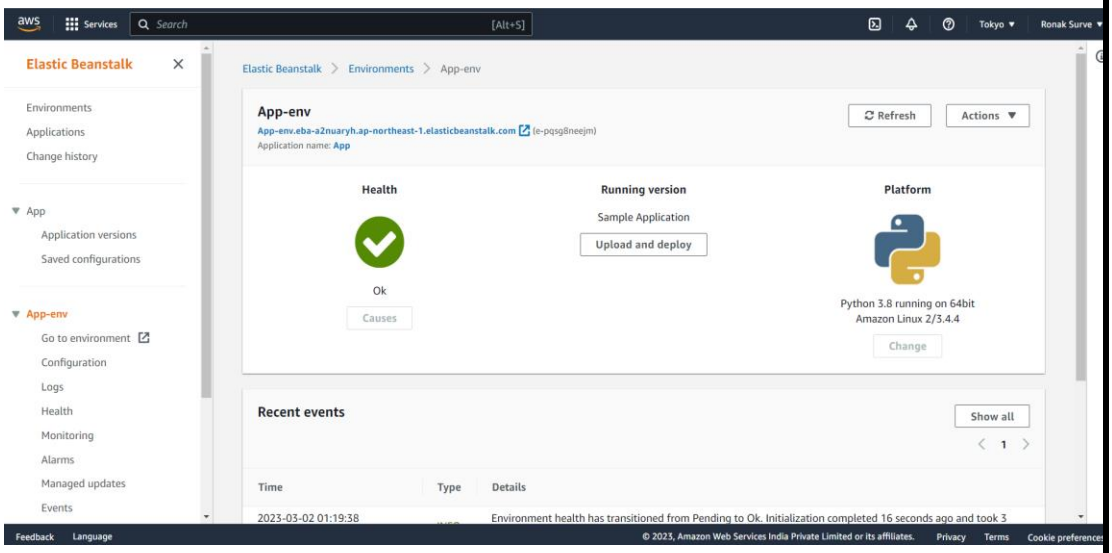
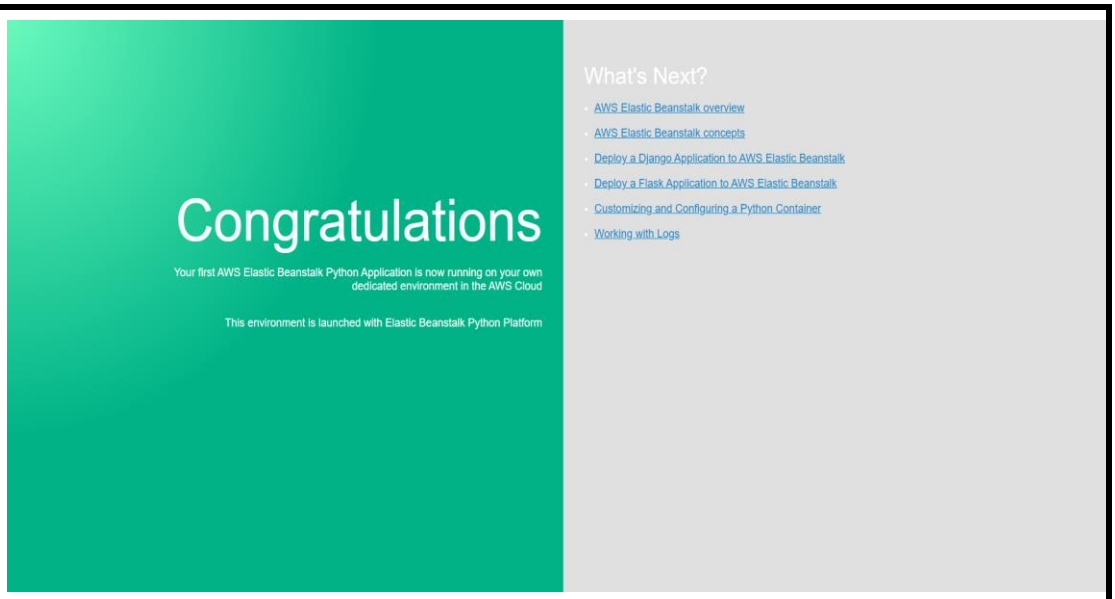
SUBJECT NAME AND CODE: CSL605 Cloud Computing

To study and Implement Platform as a Service using AWS Elastic Beanstalk/ Microsoft Azure App Service.	
Learning Objective:	Students will be demonstrating on Platform as a Service using AWS Elastic Beanstalk/ Microsoft Azure App Service.
Learning Outcome:	Students will be able to demonstrate the steps to deploy Web applications or Web services written in different languages on AWS Elastic Beanstalk/ Microsoft Azure App Service.
Course Outcome:	**CSL605.3**
Program Outcome:	3.**Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations. 5.**Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
Bloom's Taxonomy Level:	Analysis,Apply.
Theory:	Explain Elastic Beanstalk. Elastic Beanstalk is a fully managed service provided by Amazon Web Services (AWS) for deploying, running and scaling web applications. It takes care of provisioning the infrastructure resources, deploying the application and its components, and monitoring the application. This allows developers to focus on writing code for their applications without having to worry about the underlying infrastructure. With Elastic Beanstalk, you can simply upload your application code and the service automatically handles the deployment, from capacity provisioning, load balancing, and auto-scaling to application health monitoring. Elastic Beanstalk supports a variety of platforms and programming languages including Java, .NET, PHP, Node.js, Python, Ruby, and Go. One of the key benefits of Elastic Beanstalk is that it provides a highly scalable and resilient infrastructure for your applications, allowing you to quickly and easily accommodate changes in demand. Additionally, it integrates with other AWS services such as S3, RDS, and SNS to provide a complete solution for building and deploying your applications.

	In summary, Elastic Beanstalk is a fast, simple and cost-effective way to deploy and run web applications on AWS, providing a fully managed platform for deploying, running, and scaling your applications in the cloud
Procedure	Implement Platform as a Service using AWS Elastic Beanstalk/ Microsoft Azure App Service.
Steps	1. Choose a platform: Decide whether to use AWS Elastic Beanstalk or Microsoft Azure App Service. Both platforms offer similar features, but you may prefer one over the other based on your specific needs and the resources you already have in place. 2. Set up an account: If you don't already have an account, create one for the chosen platform. For AWS, this requires signing up for an AWS account, and for Azure, this requires signing up for a Microsoft account. 3. Prepare your application: Make sure your application is ready for deployment, including any necessary code changes, updates to dependencies, and ensuring that the code is packaged in a way that is compatible with the chosen platform. 4. Create an application environment: In the chosen platform's management console, create a new application environment and specify the application's configuration details such as the platform, the region, the environment type, and any custom settings. Upload your application: 5. Upload the packaged code for your application to the newly created environment. This can be done through the management console or using a deployment tool such as AWS CLI or Azure CLI. 6. Configure the environment: Configure any additional settings or resources needed for your application, such as database connections, environment variables, and security settings. 7. Launch your application: Once your application is uploaded and configured, you can launch it and start serving traffic. The platform will automatically manage the resources required to run your application, such as load balancing, auto-scaling, and monitoring. 8. Monitor and maintain: Regularly monitor your application to ensure that it is running smoothly and make any necessary updates or changes. The platform will provide tools and services to help with this, such as log analysis, performance monitoring, and auto-scaling.
Outcome :	

	
Conclusion :	Understanding and implementing platform as a Service using AWS Elastic Beanstalk/ Microsoft Azure App Service.
References:	Give References: https://www.youtube.com/watch?v=51YwXvJ9LOE