

# TNGS Learning Solutions AWS Solutions Architect Online Course Elastic Beanstalk



- Supported Platforms: Elastic Beanstalk supports
  multiple programming languages and web frameworks,
  including Java, .NET, PHP, Node.js, Python, Ruby, Go,
  Docker, and more. This makes it versatile and suitable for
  a wide range of application types.
- Managed Environment: Elastic Beanstalk provides a managed environment that includes web servers, application servers, and databases. You simply upload your code, and Elastic Beanstalk takes care of provisioning and configuring the underlying infrastructure.



- Ease of Deployment: Deployment to Elastic Beanstalk is straightforward. You can deploy your application using the AWS Management Console, AWS Command Line Interface (CLI), or AWS Elastic Beanstalk Command Line Interface (EB CLI). Elastic Beanstalk supports versioning, so you can easily roll back to a previous version if needed.
- Auto Scaling: Elastic Beanstalk can automatically scale your application based on traffic and resource utilization.
   You can configure scaling triggers and policies to ensure your application can handle varying workloads.



- Load Balancing: Elastic Beanstalk provides built-in load balancing capabilities. It can distribute incoming traffic across multiple instances to improve availability and fault tolerance.
- Environment Configuration: You can customize the environment for your application by specifying configuration settings using environment variables, including database connection strings, application settings, and more.



- Integration with Other AWS Services: Elastic
  Beanstalk can be easily integrated with other AWS
  services such as Amazon RDS (Relational Database
  Service), Amazon S3 (Simple Storage Service), AWS
  CloudWatch for monitoring, AWS CodePipeline for
  continuous delivery, and more.
- Logging and Monitoring: Elastic Beanstalk provides access to logs generated by your application and the underlying infrastructure. You can view logs through the AWS Management Console or configure log streaming to other AWS services like Amazon CloudWatch Logs.



- Security: Elastic Beanstalk environments can be configured to use Virtual Private Cloud (VPC) for network isolation and security. AWS Identity and Access Management (IAM) can be used to control access to Elastic Beanstalk resources.
- Multi-Container Environments: Elastic Beanstalk also supports multi-container environments using Docker. You can define multi-container environments using a Docker Compose file.



- Customization: While Elastic Beanstalk abstracts many operational details, you still have the flexibility to customize your environment by providing configuration files and scripts.
- **Deployment Hooks**: Elastic Beanstalk provides hooks that allow you to run scripts at various stages of the deployment process, enabling you to perform custom actions.
- Managed Updates: AWS Elastic Beanstalk automatically manages platform updates, which include operating system patches, web server updates, and other software updates.



- AWS Elastic Beanstalk is a powerful platform for developers who want to deploy and manage web applications without the need for deep expertise in infrastructure management.
- It simplifies the deployment process and provides the scalability and reliability needed to run productiongrade applications in the AWS cloud.