1]What is Elasticbeanstalk? Explain.

Elastic Beanstalk is a cloud deployment service provided by Amazon Web Services (AWS) that simplifies the process of deploying, managing, and scaling web applications and services. It allows developers to focus on writing code without worrying about the underlying infrastructure.

1]Application Upload: Developers package their web application code (e.g., in Java, Python, Ruby, Node.js, PHP, .NET, etc.) along with configuration files and dependencies into an archive (e.g., a ZIP file

2]Environment Creation: Developers then upload this application bundle to Elastic Beanstalk and define an "environment," which is a collection of AWS resources (such as EC2 instances, load balancers, databases, etc.) needed to run the application. Elastic Beanstalk automatically provisions and configures these resources based on the specified requirements.

3]Auto Scaling and Load Balancing: Elastic Beanstalk automatically handles the scaling of resources based on traffic demands. It can scale up or down the number of EC2 instances running the application based on metrics like CPU utilization, network traffic, etc. It also includes a built-in load balancer that distributes incoming traffic across multiple instances for better performance and fault tolerance.

4]Monitoring and Logging: Elastic Beanstalk provides built-in monitoring and logging capabilities, allowing developers to view metrics such as CPU utilization, memory usage, and request latency. It integrates with AWS CloudWatch for monitoring and AWS CloudTrail for auditing.

5]Easy Updates and Rollbacks: Deploying updates to applications is simplified with Elastic Beanstalk. Developers can upload new application versions, and Elastic Beanstalk handles the deployment process, including rolling out updates across instances without downtime. In case of any issues, it supports quick rollbacks to previous versions.

6]Integrated with AWS Services: Elastic Beanstalk seamlessly integrates with other AWS services like Amazon RDS for databases, Amazon S3 for storing static files, Amazon SNS for notifications, and more, providing a comprehensive platform for building and deploying applications.