

Aim: case Study on Amazon EC2 to learn about Amazon EC2 is a central part of Amazon.com's cloud computing platform, Amazon web Services. How EC2 allows users to rent virtual computers on which to run their own computer application.

Objectives :-

1. To learn Amazon web Services
2. To ease study the Amazon EC2

SW Requirement :-

Ubuntu 18.04, PHP, MySQL

HW Requirement :-

Pentium IV system with latest configuration.

Theory :-

Amazon Elastic Compute cloud (EC2) :-

Elastic IP address allow you to allocate a static IP addresses and programmatically assigns it to an instance.

## your Application

Payment: Amazon FPS/Debit	Amazon SimpleDB Domains	Amazon SNS Topics	Amazon SQS Queues	Amazon RDS	Amazon Elastic MapReduce JobFlows	Amazon
				Auto Scaling	Elastic LB	Cloud Watch
				Amazon EC2 Instance		Amazon Cloud
				On-Demand, Reserved, Spot		Objects & Buckets
					EBS Volumes	Snapshots
				Amazon virtual private cloud		

## Amazon Global Physical Infrastructure (Geographical Regions, Availability Zones, Edge locations)

you can enable monitoring on an Amazon EC2 instance using Amazon CloudWatch in order to gain visibility into resource utilization, operational performance and overall demand pattern. you can create autoscaling feature 3 to automatically scale your capacity on certain condition based on metric that Amazon CloudWatch collect.

Amazon Elastic Block Storage (EBS) volumes provide network attached persistent storage to Amazon EC2 instance. Point in time consistent Snapshot to EBS volume can be created



and store on Amazon Simple Storage Service (Amazon S3). Amazon S3 is highly durable and distributed data store, with a simple web services interface, you can store and retrieve large amounts of data as objects in buckets at any time, from anywhere on the web using standard HTTP verbs. Amazon SimpleDB is a web services that provides the core functionality of a database real time lookup and simple querying of structured data - without the operational complexity - you can organize the data set into domain into & run queries across all of the data store in a particular domain. Domains are collections of items that are described by attribute-value pairs.

Amazon Relational Database Service (Amazon RDS) :- provides an easy way to setup, operate and scale a relational database in the cloud. You can launch a DB Instance and get access to a full-featured MySQL db and not worry about common db admin task like backups, patch management etc.

Amazon Simple Notification Service (Amazon SNS) provide a simple way to notify app or people

From the cloud by creating Topics and using a publish-subscribe protocol.

Amazon Elastic MapReduce provides a hosted Hadoop Framework running on the web Scale Infrastructure of Amazon Elastic compute cloud (Amazon EC2) & Amazon Simple Storage Services and allows you to create customized JobFlows.

Amazon Virtual Private Cloud (Amazon VPC) allows you to extend your corporate network into a private cloud contained within AWS.

Amazon Route53 is a highly Scalable DNS Services that allows you manage your DNS records by creating a Hosted Zone for every domain you would like to manage.

AWS Identity and access management (IAM) enable you to create multiple users with Unique Security credentials and manage the permission for each of these users within your AWS account. IAM is natively integrated into AWS Services. No Services APIs have changed to support IAM and existing



application and tools built on top of the AWS Services APIs will continue to work when using IAM. AWS also offers various payment and billing services that leverage Amazon's payment infrastructure.

You are free to use the programming model, language & OS of your choice. You are free to pick and choose the AWS product that best satisfies your requirements - you can use any of the services individually or in any combination. You are free to use the system management tools you've used in the past and extend your datacenter into cloud.

Conclusion :-

perform case study of Amazon web services : Amazon EC2.