UDACITY

Fullstack javascript nanodegree

Session 7

Agenda

- 2nd Project Discussion
- Intro to Cloud
- AWS Services
- Live Activity
- Q&A

2nd Project Discussion

Intro to Cloud

Intro to Cloud

- What is cloud computing?
- Before cloud computing
- Why should you use the cloud?

Cloud Computing

- **Cloud Computing** is the delivery of shared pool of computing services/resources —including servers, storage, databases, networking, software, analytics and intelligence— over the Internet (The Cloud).

- It offers faster innovation, flexible resources, and economies of scale.

- You pay only for cloud services you use, helping you lower your operating costs, run your infrastructure more efficiently, and scale as your business needs change.

Before Cloud Computing

- Before cloud computing, companies had to store all their data and software on their own hard drives and servers.
- The bigger the company, the more storage they needed.
- They had to maintain the stability, failures and fixes of the resources their selves.
- At load times, they had to purchase more resources just for these events which is way expensive

Why Cloud Computing

- Flexibility

  Users can scale services to fit their needs, customize applications and access cloud services from anywhere with an internet connection.

- Efficiency

  Enterprise users can get applications to market quickly, without worrying about underlying infrastructure costs or maintenance.

- Strategic value

  Cloud services give enterprises a competitive advantage by providing the most innovative technology available.

AWS Services

Cloud Providers

- AWS is a shorthand of Amazon Web Services.

- AWS is not the only cloud provider. There are other giants in that field such as
  - Google Cloud Platform (**GPC**)
  - Microsoft **Azure**
  - Alibaba Cloud
  - Digital Ocean
  - Heroku
- But Udacity choose AWS as it’s the most popular one.

RDS

- Amazon Relational Database Service (Amazon RDS) makes it easy to set up, operate, and scale a relational database in the cloud.

- It helps with relational database management tasks, such as data migration, backup and recovery.

S3

- Amazon Simple Storage Service (Amazon S3) is a scalable, high-speed, web-based cloud storage service.
- S3 provides 99.999999999% durability for objects stored in the service and supports multiple security and compliance certifications.
- You only pay for the visits/requests of the items hosted in there.

S3

- You can create multiple **buckets**.
- A **bucket** is a container for **objects**.
- An **object** is a file and any **metadata** that describes that file.

- To store an object in Amazon S3, you create a bucket and then upload the object to the bucket. When the object is in the bucket, you can open it, download it, and move it.

EC2

- An EC2 instance is like a remote computer running Windows or Linux and on which you can install whatever software you want, including a Web server running Nodejs code or a database server.

- Amazon provides various types of instances with different configurations of CPU, memory, storage and networking resources to suit user needs.

- It allows businesses to run application in the AWS public cloud.

IAM

- AWS Identity and Access Management (IAM) provides fine-grained access control across all of AWS.

- It has policies, permissions & roles to ease the process of giving a certain access to a certain user for a certain resources.

EB

- AWS Elastic Beanstalk is an easy-to-use service for deploying and scaling web applications and services developed with Java, .NET, PHP, Node.js, Python, Ruby and Go.

- You can simply upload your code and Elastic Beanstalk automatically handles the deployment, from capacity provisioning, load balancing, auto-scaling to application health monitoring.

- There is no additional charge for Elastic Beanstalk - you pay only for the AWS resources needed to store and run your applications.

- It’s built to ease the deployment process for the developer, with non-operation background.

Live Activity

Q&A

Your Feedback is Appreciated

References

- Cloud Computing
- The Benefits of Cloud Computing
- What is EC2
- What is IAM
- AWS Commands

Remember that we are here to help you

All you have to do is **ASK!**

Thanks for attending