

# **Vampire Unicorns - Week 7**

## **Theoretical**

Explain some of the practical benefits of using the cloud

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### **Introduction**

Cloud computing has transformed how organizations use, store, and access data. Cloud computing delivers on-demand computing services from applications, storage and processing power, over the internet and on a pay-as-you-go basis.

### **Benefits of using the Cloud**

#### **1. Mobility**

Cloud computing allows access to data from any device, anywhere and at any time using the internet.

#### **2. Disaster Recovery**

Most cloud providers are well-equipped to withstand unforeseen disruptive events such as natural disasters, hardware or software failure, and power outages.

#### **3. Security**

Most cloud providers offer advanced security features to ensure sensitive data is securely handled and stored.

#### **4. Cost-savings**

This is a significant advantage of Cloud Computing since organizations no longer need to build their own IT infrastructure, thus, reducing expenses.

#### **5. Scalability**

Cloud providers make it easy to scale bandwidth, storage space, and computing power depending on needs and budget.

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### **What is the cloud**

The cloud refers to servers that are accessed over the Internet, and the software and databases that run on those servers. Cloud servers are located in data centers all over the world. By using cloud computing, users and companies do not have to manage physical servers themselves or run software applications on their own machines.

### **Benefits of using the cloud**

#### **1. Trade fixed expense for variable expense**

Instead of having to invest heavily in data centers and servers before you know how you're going to use them, you can pay only when you consume computing resources, and pay only for how much you consume.

#### **2. Benefit from massive economies of scale**

By using cloud computing, you can achieve a lower variable cost than you can get on your own. Because usage from hundreds of thousands of customers is aggregated in the cloud, providers such as AWS can achieve higher economies of scale, which translates into lower pay-as-you-go prices.

#### **3. Stop guessing capacity**

Eliminate guessing about your infrastructure capacity needs. When you make a capacity decision prior to deploying an application, you often end up either sitting on expensive idle resources or dealing with limited capacity. With cloud computing, these problems go away. You can access as much or as little capacity as you need, and scale up and down as required with only a few minutes' notice.

#### **4. Increase speed and agility**

In a cloud computing environment, new IT resources are only a click away, which means that you reduce the time to make those resources available to your developers from weeks to just minutes. This results in a dramatic increase in agility for the organization since the cost and time it takes to experiment and develop are significantly lower.

## **5. Stop spending money running and maintaining data centers**

Focus on projects that differentiate your business, not the infrastructure. Cloud computing lets you focus on your own customers, rather than on the heavy lifting of racking, stacking, and powering servers.

## **6. Go global in minutes**

Easily deploy your application in multiple regions around the world with just a few clicks. This means you can provide lower latency and a better experience for your customers at a minimal cost.

## **Practical**

Connect your project to an Amazon RDS database

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