

Amazon EC2 Basics 

42% COMPLETE

AND SCENARIO

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Lesson 5 - Selecting the Correct Instance Type

Lesson 6 of 12

Amazon EC2 Instance Pricing

Sofia brings John to the Finance department and introduces him to Arnav, the liaison for the AWS Cloud migration project. Sofia is looking for Arnav to provide a different perspective around the function and benefits of an economy of scale.

To read about the discussion between Sofia, John and, Arnav, choose the play button. For screen reader users, the text conversation is listed in the Transcript section below the video. To slow the speed of the video, select the play button and then change the speed (.75x to slow the speed or 1.25x to increase the speed) by changing the number to the right of the play bar.

Transcript

Sofia: Hello, Arnav. This is our new employee, John.

Arnav: Hi, Sofia! Nice to meet you John. What brings you to my office today?

Sofia: I was just telling John about economies of scale. I thought that you'd be a great person to explain it to him.

Arnav: Economies of scale? That's one of my favorite topics. Pull up a chair and let me tell you about economies of scale. Do you know what the biggest advantages of using a cloud provider are?

Sofia: I do, but John's only just heard about economies of scale today. I started telling him about it on the way here but decided that I'd save the best parts for you.

Arnav: Economies of scale is one of the biggest advantages of using a cloud provider. Let me tell you more about it.

Advantages of cloud computing

To learn about advantages of cloud computing, expand each of the following six categories.

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.

Stop guessing capacity

Eliminate guessing on your infrastructure capacity needs. When you make a capacity decision before deploying an application, you often end up either sitting on expensive idle resources or dealing with limited capacity. With cloud computing resources, such as Amazon EC2, these problems can go away. You can access as much or as little capacity as you need, and you can configure your environment to automatically scale up and down as needed.

Increase speed and agility

In a cloud computing environment, new IT resources are only a click away, which means that you can 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, because the cost and time it takes to experiment and develop is significantly lower.

Stop spending money running and maintaining data centers

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

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.

Go global in minutes

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

Pricing for Amazon EC2

John was fascinated to learn of the multitude of advantages offered by cloud computing. He had no idea about how an economy of scale worked. He never realized how cost savings are passed to the customer by using the size advantages of AWS and its global infrastructure. He wanted to know more about how these costs would affect his workloads and how AWS prices its EC2 instances.

Arnav shifted the discussion to focus on Amazon EC2 pricing. Arnav wanted to highlight how Amazon EC2 provides various purchasing options and Savings Plans to help John manage instance costs.

To learn more about instance pricing options, expand each of the following six categories.

On Demand



Spot



Savings Plans



Reserved Instances



Savings Plans compared with Reserved Instances



Dedicated Hosts



John is impressed by the many ways that AWS helps save people money. He was really surprised when Arnav told him that AWS has lowered prices 107 times since it launched its services in 2006. He took some comprehensive notes as Arnav was speaking and summarized the instance pricing options to help him remember.

- **On-Demand Instances** – You pay full price, by the second when you launch.
- **Spot Instances** – This refers to unused instance resources that you can bid on. Your price is determined by market availability.
- **Reserved Instances** – You agree to a specific instance configuration for a period of 1–3 years.

- **Dedicated Hosts** – You get a full physical server.
- **Savings Plans** – You commit to a certain amount of usage over a 1–3-year period.

For addition pricing information, see [Amazon EC2 pricing](#).

Knowledge check:

Arnav wants to make sure that John understands which instance would fit which workload. He pretends to be a game show host and grabs his megaphone to ask John a few questions.



Keyboard navigation for knowledge check questions +

Question 1: You have an application that can handle being interrupted or stopped and can recover easily.

Which instance type would you choose?

- Reserved Instance
- Dedicated Host
- Spot Instance
- On-Demand Instance

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Question 2: You have a large open-source internal database, which is used to hold all sales invoices and purchase histories. This database will be in production for at least the next 2 calendar years and will not require a change of instance type.

Which instance type would you choose?

- Convertible Reserved Instance
- Spot Instance
- On-Demand Instance
- Dedicated Host
- Standard Reserved Instance

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Question 3: You work with a healthcare company with regulatory requirements that

specify that none of your workloads can share hardware with any external
company.

Which instance type would you choose?

- Convertible Reserved Instance
- Spot Instance
- On-Demand Instance
- Dedicated Host
- Standard Reserved Instance

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Arnav is pleased with how quickly John is learning the pricing models. As a former information
technologist himself, Arnav wants to dive deeper into this topic and talk about the value of
performance.

Let's see what Arnav has to say.