Hello, Cloud Gurus and welcome to this lecture,

which is going to cover EC2 Image Builder.

So first of all, we'll take a look

at what is EC2 Image Builder?

Why is it so cool?

How does it work?

We'll also take a look at the terminology and exam tips.

So what is EC2 Image Builder?

Well, it allows you to create virtual machine images

and in AWS they're known

as Amazon machine images and container images as well.

It's really simple to use with a graphical interface.

And once you have created your image,

you can use EC2 Image Builder to test

and validate the image, for example,

for security compliance and functionality.

And you can use AWS-provided tests

or you can develop your own custom tests.

So why is it so cool?

Well, the great thing about EC2 Image Builder

is that it automates the process

of creating and maintaining your images.

And when software updates become available,

Image Builder can automatically create a new image,

run validation tests on the new image, and make it available

to the AWS regions of your choice.

And it also allows you to share your AMI

with other AWS accounts that you own.

So how does it work?

Well, the first step

is to provide a base operating system image.

For example, the Amazon Linux 2 AMI.

The next step is to define the software

that we want to install.

For example, you might want to install .NET, Node.js

or Python, the latest security updates, the latest kernel

or security settings.

And then in the third step,

this is where Image Builder runs tests on the new image,

for example, testing

whether the image will boot correctly.

And to do this, it will spin up a new EC2 instance

using the new image and it will run tests

on this EC2 instance.

And then the fourth step is to distribute.

So Image Builder is going to distribute the image

to the regions of your choice, and by default,

it will distribute the image to the region

that you are operating in.

So let's take a look at some

of the EC2 Image Builder terminology,

beginning with image pipeline.

And the image pipeline defines the configuration

and end-to-end process of building images,

including an image recipe, distribution,

so which regions you would like to distribute your image to

and test settings as well.

So what is the image recipe?

Well, Image Builder creates a recipe for each image,

which can then be shared, version controlled and reused.

And this will include a source image, for example,

the Amazon Linux 2 AMI and build components.

So the software that we want to install

on our image, for example, Apache Tomcat.

And build components simply means the software components

that we are including in our image.

So onto my exam tips.

And just remember, EC2 Image Builder automates the process

of creating and maintaining AMI and container images.

It's a four-step process.

So we begin with selecting a base operating system image,

like the Amazon Linux 2 AMI.

We customize it

by adding software, for example, Apache Tomcat.

We run tests, for example,

testing that we can boot an EC2 instance using the image.

And then finally, Image Builder will distribute your image

to your chosen regions.

And then in terms of the terminology,

image pipeline is used

to describe the Image Builder settings and process.

The image recipe defines the source image

and the build components are the software

that you want to include in the image.

But the best way to understand EC2 Image Builder

is to actually use it.

So if you're ready to get your hands dirty

with EC2 Image Builder,

I will see you in the next lecture.

Thank you.