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# Amazon EC2 Launch Templates



This lesson is an introduction to launch templates for Amazon Elastic Compute Cloud (Amazon EC2) instances.

# What you will learn

## At the core of the lesson

You will learn how to:

- Describe the purpose of a launch template for Amazon Elastic Compute Cloud (Amazon EC2) instances
- Create a launch template
- Explain launch template versions

**Key terms:**

- Launch template
- Launch template version



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In this lesson, you will learn how to:

- Describe the purpose of a launch template for Amazon Elastic Compute Cloud (Amazon EC2) instances
- Create a launch template
- Explain launch template versions

Create a launch template

## Launch templates

### Create templates for EC2 instance launch requests

- Contain configuration information to launch an EC2 instance.
- Store launch parameters:
  - Amazon Machine Image (AMI) ID
  - Instance type
  - Subnet
  - Key pair
- Specify the launch template to use when you launch instances.

| T2.micro | Ami-1a2b |
|---|---|
| Subnet-1111 | Key-pair-1 |

Example launch parameters that are stored in a template



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Users can launch instances using several methods of which a launch template is one. Other methods include the wizard, using an AMI, or a CloudFormation template. AMIs were discussed in the previous module.

*Launch templates* enable you to create templates for your launch requests. When you create a launch template, you can specify the following configurations:

- Instance type
- Subnet to launch the instance into
- Key pair
- Security group

You can store the launch parameters so that you do not have to specify them every time you launch an instance.

When you create the launch template, you decide which launch options to include in the template. In addition, launch templates provide the following features:

- Enable you to preselect EC2 launch options
- Support versioning

Launch templates provide the following benefits:

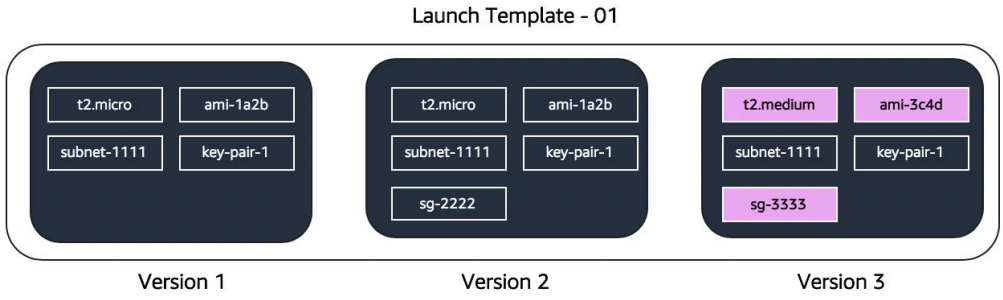
- Streamline and simplify the launch process for Amazon EC2 Auto Scaling, Spot Fleet, Spot Instances, and On-Demand Instances.

- Reduce the number of steps that are required to create an instance by capturing all launch parameters within one resource.
- Make it easier to implement standards and best practices. As a result, you realize the following additional benefits –
    - Help in managing costs
    - Improve security
    - Minimize the risk of deployment errors

# Versions of a launch template

## You can create launch template versions

- Each version can have different launch parameters.
- Use any version of the launch template.
- Set any version of the launch template as the default version.
- By default, the default template is the first version of the template.



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For each launch template, you can create one or more numbered *launch template versions*. Each version can have different launch parameters, as illustrated here.

- When you launch an instance from a launch template, you can use any version of the launch template. If you do not specify a version, the default version is used.

- You can set any version of the launch template as the default version. By default, it is the first version of the launch template.

The diagram shows a launch template with three versions.

- **Version 1** – Specifies the instance type, Amazon Machine Image (AMI) ID, subnet, and key pair to use when launching the instance.

- **Version 2** – This version is based on the first version, and it also specifies a security group for the instance.

- **Version 3** – Uses different values for some of the parameters. Version 2 is set as the default version. If you launched an instance from this launch template, the launch parameters from version 2 are used if no other version was specified.

# Demonstration: Create a launch template

You can access the Create a Launch Template video demonstration in Canvas.

## Key takeaways


- Launch templates contain configuration information to launch an EC2 instance.
- Specify the launch template to use when you launch instances.





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Key takeaways from this module include:

- Launch templates contain configuration information to launch an EC2 instance.
- Specify the launch template to use when you launch instances.