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Creating a VM Instance from an Instance Template

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This page explains how to use an [instance template](#) to create a VM instance. An instance template is an API resource that defines the properties of VM instances. You define properties like the machine type, OS image, persistent disk configurations, metadata, startup scripts, and so on, in an instance template and then can use the instance template to create individual VM instances or [groups of managed instances](#).

When you create a VM instance from an instance template, the default behavior is to create a VM instance that is identical to the properties specified in the template, with the exception of the VM instance name and the zone where the instance will live. Alternatively, you can also optionally override certain fields during instance creation if you want to change certain properties of the instance template for specific uses.

This document assumes that you have an instance template ready to use. If you do not have an instance template, follow the instructions to [create a new instance template](#).

Before you begin

- If you want to use the command-line examples in this guide:
 1. Install or update to the latest version of the [gcloud command-line tool](#).
 2. [Set a default region and zone](#).
- If you want to use the API examples in this guide, [set up API access](#).
- Read the [Instance Template](#) documentation.
- Create an [instance template](#).

Creating a VM instance from an instance template

To create an instance exactly as described in the instance template, follow these instructions.

[Console](#) [gcloud](#) [API](#)

1. Go to the VM instances page.

Go to the VM instances page
2. Click **Create instance**.
3. Click **New VM instance from template**.
4. Select your template and click **Continue**.
5. Specify a name for your instance and make further customizations as needed.
6. Click **Create**. Read [create an instance](#) for additional setup details.

Creating a VM instance from an instance template with overrides

When you use an instance template to start a VM instance, the default behavior is to create a VM instance exactly as described in the instance template with the exception of the instance name and zone.

If you want to create an instance primarily based on an instance template but with a few changes, you can use the override behavior. To use the override behavior, you pass in attributes to override for the existing instance template when creating the instance.

[gcloud](#) API

Using the `gcloud` tool, make a request to create an instance with the `--source-instance-template` flag and override any property you want with the appropriate `gcloud` flag. To see a list of applicable flags, review the [gcloud reference](#).

For example, to override the machine type, metadata, operating system, a boot persistent disk, and a secondary disk of an instance template, provide following flags:

```
gcloud compute instances create example-instance --source-instance-template example-instance \
  --machine-type n1-standard-2 --image-family debian-8 --image-project debian-cloud \
  --metadata bread=butter --disk=boot=no,name=my-override-disk
```

What's next

- Read the [Preemptible VM instances](#) documentation.
- Read about [Shutdown scripts](#).
- Refer to the [preemptible instance pricing](#).
- [Connect to your instance](#).

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