

# Reproducible builds and deployments.

## Nix

Powerful package manager for Linux and other Unix systems that makes package management reliable and reproducible. Share your development and build environments across different machines.

## NixOS

Linux distribution with a unique approach to package and configuration management. Built on top of the Nix package manager, it is completely declarative, makes upgrading systems reliable, and has many other advantages.

[Get started](#)
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```
$ bat default.nix
File: default.nix
1 { pkgs ? import <nixpkgs> {} # here we import the nixpkgs package s
et
2 };
3 pkgs.mkShell { # mkShell is a helper function
4   name="dev-environment" # this requires a name
5   buildInputs = [ # and a list of packages
6     pkgs.nodejs
7   ];
8   shellHook = '' # bash to run when you enter the shell
9     echo "Start developing..."
10    '';
11 }

$ # Pause the video to understand the default.nix
$ # To enter dev-environment simply run:
$ nix-shell
Start developing...
[nix-shell]$ node -e "console.log(1+1)"
2
[nix-shell]$ # Now go ahead commit default.
```

### Current versions

[Nix 2.3.7](#)
[NixOS 20.03](#)

## Why choose Nix or NixOS?

### It's Reproducible...

Nix builds packages in isolation from each other. This ensures that they are reproducible and don't have undeclared dependencies, so if a package works on one machine, it will also work on another.

### It's Declarative...

Nix makes it trivial to share development and build environments for your projects, regardless of what programming languages and tools you're using.

### It's Reliable...

Nix ensures that installing or upgrading one package cannot break other packages. It allows you to roll back to previous versions, and ensures that no package is in an inconsistent state during an upgrade.

## Choose from Thousands of Packages

The Nix Packages collection (**nixpkgs**) is a set of **over 60.000 packages** for the Nix package manager.



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## Examples

```
$ python --version
python: command not found
$ nix-shell -p python3
[nix-shell]$ python --version
Python 3.7.7
```

### Try new tools without fear

Don't clutter your system with tools that you use only now and then.

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- NixOS**  
Linux Distribution...

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