

# How to Create an Executable from a Python Script

Creating an executable (.exe) file from a Python script means turning your script into a standalone application that can run on Windows computers without needing Python installed. Here's a step-by-step guide to do this using a tool called PyInstaller.

## Step 1: Download and Install PyInstaller

- **Download Python:** First, ensure you have Python installed on your computer. You can download it from the official Python website: <https://www.python.org/downloads/>
- **Install PyInstaller:** PyInstaller is a program that converts Python scripts into executables. You can install it by opening your command prompt (search for 'cmd' in the Windows start menu) and typing the following command:
  1. `pip install pyinstaller`
  2. This command downloads and installs PyInstaller.

## Step 2: Prepare Your Python Script

- Make sure your Python script (the .py file) is ready and tested. It should be the script you want to convert into an executable.

## Step 3: Convert the Script to an Executable

- **Open Command Prompt in Script Directory:** Find your Python script file in File Explorer. Hold 'Shift', right-click on the folder containing your script, and select 'Open PowerShell window here' or 'Open command window here'.
- **Run PyInstaller:** In the command prompt that opens, type the following command:
  - `pyinstaller --onefile your_script_name.py`
  - Replace `your_script_name.py` with the actual name of your Python script. This command tells PyInstaller to create a single executable file from your script.

## Step 4: Locate the Executable File

- **Find the 'dist' Folder:** After PyInstaller finishes, it creates a new folder named 'dist' in the same directory as your Python script.
- **Executable File:** Inside the 'dist' folder, you'll find the .exe file with the same name as your script. This is your standalone application.

## Step 5: Run the Executable

- You can now run your application by double-clicking the .exe file. It will work on any Windows computer, even if Python is not installed.