

Exercise 2.1: Getting Started with Django

Task Questions :

- *Write two to three sentences on why Django is so popular among web developers.*
 - **A:** Django comes equipped with many plugins, features, admin tools, and more. While Django requires the developer to do this in a structured way determined by the framework, it creates a development environment of consistency and efficiency. With so much of the tedium removed from the development process, time and energy can be focused on the creativity and accuracy of the programmatic logic.
- *After some research, list five large companies that use Django. Specify what the company's product or service is and what they use Django for.*
 - Instagram is a widely used photo-sharing platform. The simplicity and the ability to build applications quickly compelled Instagram to adopt it in their infrastructure.
 - Pinterest is a visual discovery and bookmarking platform. The high-level abstractions and built-in features allowed Pinterest to focus on developing features and scaling their platform.
 - Spotify is a popular music streaming service. Spotify benefits from Django's rapid development capabilities support for building scalable web applications.
 - Dropbox is a cloud-based file hosting service. They use Django for its built-in admin interface and its emphasis on maintainability.
 - Eventbrite is an online event management and ticketing platform. They use Django because its clean design and focus on writing reusable code align well with their principles for building a scalable and maintainable web application.
- *For each of the following scenarios, explain if you would use Django (and why or why not):*
 - *You need to develop a web application with multiple users.*
 - **A:** Yes. Django comes equipped with an authentication system and other security features, as well as being scalable as the user base potentially increases.
 - *You need fast deployment and the ability to make changes as you proceed.*
 - **A:** Yes. Django employs the DRY (Don't Repeat Yourself) principle and emphasizes rapid development. The built-on features, such as admin interface, form handling, and templating, facilitate rapid development.

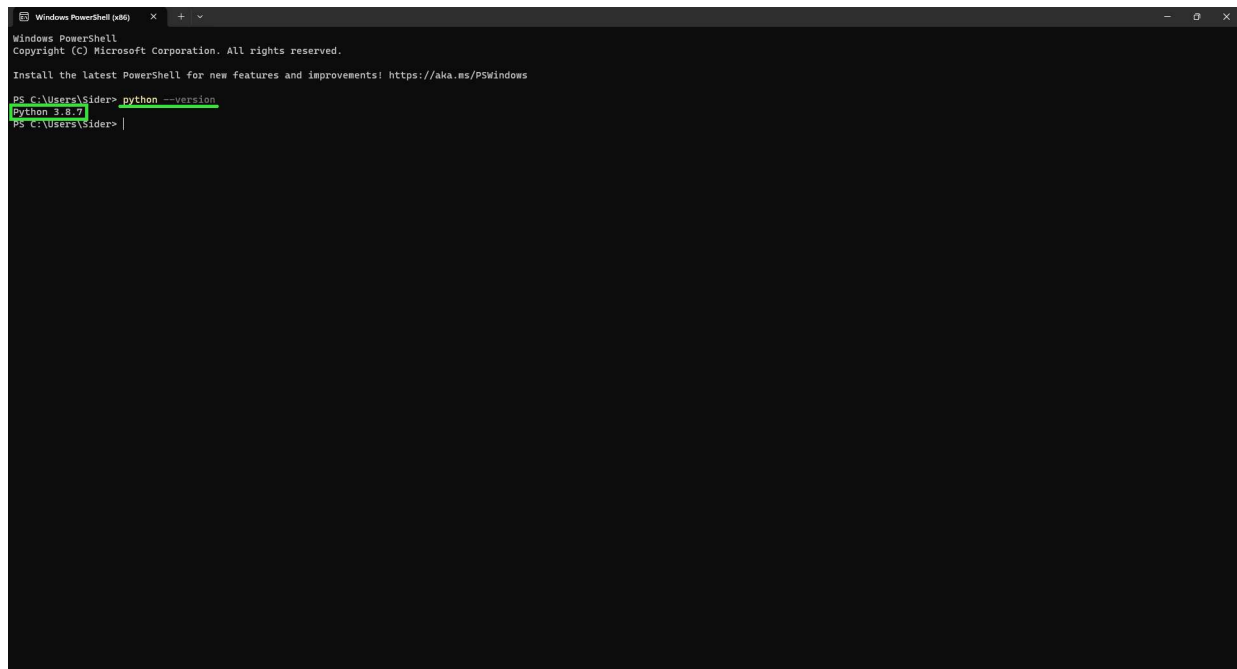
- *You need to build a very basic application, which doesn't require any database access or file operations.*
 - **A:** No. The multitude of tailored features for database operations make it excessive for a simple application that doesn't need them. A developer would only be exposing themselves to pre-specified procedures that may inhibit development, while not providing any benefit.

- *You want to build an application from scratch and want a lot of control over how it works.*
 - **A:** No. While Django offers a lot of built-in functionality that could be beneficial in building an application from scratch, it comes with the burden of guidance, in that it dictates how some things are done. With this hypothetical scenario specifying "a lot of control", and not having any other additional specifics on the project planning, it is safe to assume that these developers would want the benefit of the maximized control over every detail that comes with using vanilla Python or another framework more suited to that desire.

- *You're about to start working on a big project and are afraid of getting stuck and needing additional support.*
 - **A:** Yes. Django's large and active community, extensive documentation, and many third-party packages, along with its great track record with large and highly-successful companies, make it a great candidate for a dev team that has worry of stoppages in progress. With Django's minimal need for external dependencies, due to its mostly all-inclusive "batteries included" philosophy, it is less likely to run into major problems that are inherent to dependencies (e.g. any of those dependencies changing over time).

Task Screenshots :

- Step 5 :

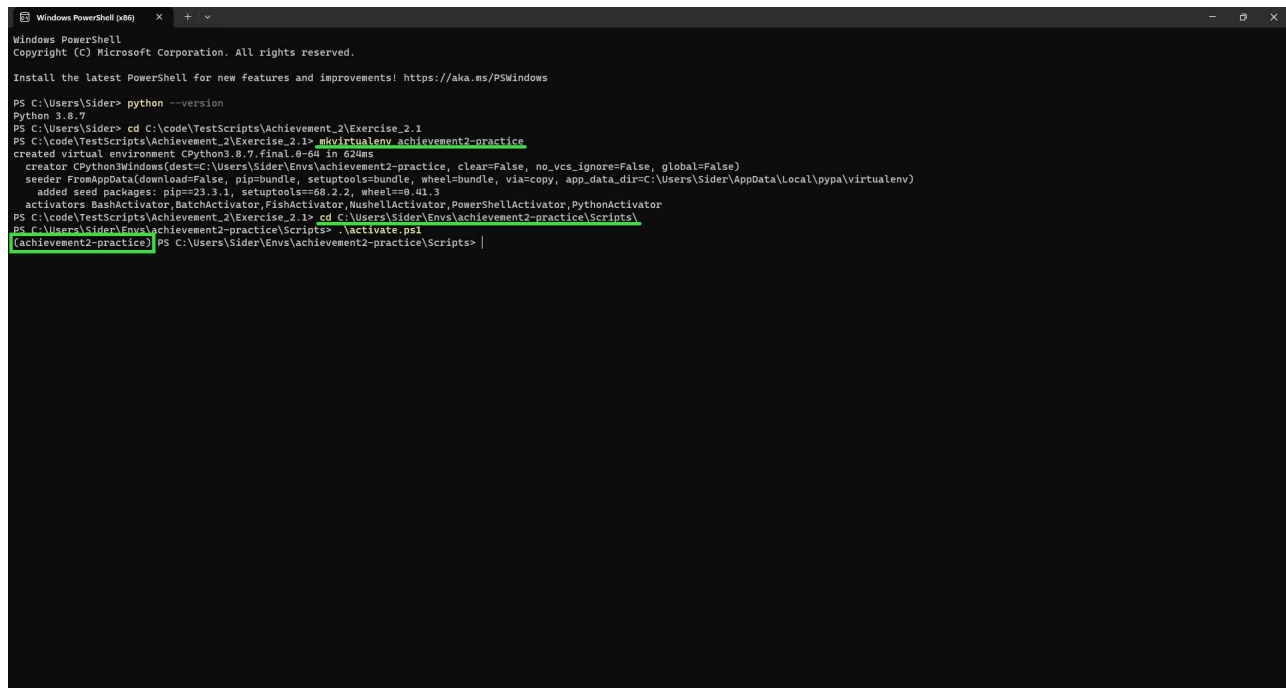


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Windows PowerShell (x64)
Windows PowerShell
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PS C:\Users\Sider> python --version
Python 3.8.7
PS C:\Users\Sider> |
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- Step 7 :



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PS C:\Users\Sider> python --version
Python 3.8.7
PS C:\Users\Sider> cd C:\code\TestScripts\Achievement_2\Exercise_2.1
PS C:\code\TestScripts\Achievement_2\Exercise_2.1> mkvirtualenv achievement2-practice
created virtual environment CPython3.8.7.final.0-64 in 62ms
creator CPython3Windows(dest=C:\Users\Sider\Env\achievement2-practice, clear=False, no_vcs_ignore=False, global=False)
seeder FromAppData(download=False, pip=bundle, setuptools=bundle, wheel=bundle, via=copy, app_data_dir=C:\Users\Sider\AppData\Local\pypa\virtualenv)
added seed packages: pip==23.3.1, setuptools==68.2.2, wheel==0.41.3
activators BashActivator,BatchActivator,FishActivator,PowerShellActivator,PythonActivator
PS C:\code\TestScripts\Achievement_2\Exercise_2.1> cd C:\Users\Sider\Env\achievement2-practice\Scripts
PS C:\Users\Sider\Env\achievement2-practice\Scripts> .\activate.ps1
(achievement2-practice) PS C:\Users\Sider\Env\achievement2-practice\Scripts> |
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• Step 8 :

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Windows PowerShell
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PS C:\Users\Sider> python --version
Python 3.8.7
PS C:\Users\Sider> cd C:\code\TestScripts\Achievement_2\Exercise_2.1
PS C:\code\TestScripts\Achievement_2\Exercise_2.1> mkvirtualenv achievement2-practice
created virtual environment CPython3.8.7.final.0-64 in 624ms
creator CPython3Windows(dest=C:\Users\Sider\Envs\achievement2-practice, clear=False, no_vcs_ignore=False, global=False)
seeder FromAppData(download=False, pip=bundle, setuptools=bundle, wheel=bundle, via=copy, app_data_dir=C:\Users\Sider\AppData\Local\pypa\virtualenv)
added seed packages: pip==23.3.1, setuptools==68.2.2, wheel==0.41.3
activators BashActivator, BatchActivator, FishActivator, NushellActivator, PowerShellActivator, PythonActivator
PS C:\code\TestScripts\Achievement_2\Exercise_2.1> cd C:\Users\Sider\Envs\achievement2-practice\Scripts\
PS C:\Users\Sider\Envs\achievement2-practice\Scripts> .\activate.ps1
(achievement2-practice) PS C:\Users\Sider\Envs\achievement2-practice\Scripts> py -m pip install Django
Collecting Django
  Using cached Django-4.2.8-py3-none-any.whl.metadata (4.2 kB)
Collecting asgiref<4,>=3.6.0 (from Django)
  Using cached asgiref-3.7.2-py3-none-any.whl.metadata (9.2 kB)
Collecting sqlparse>=0.3.1 (from Django)
  Using cached sqlparse-0.4.4-py3-none-any.whl (41 kB)
Collecting backports.zoneinfo (from Django)
  Using cached backports.zoneinfo-0.2.1-cp38-cp38-win_amd64.whl (38 kB)
Collecting tzdata (from Django)
  Using cached tzdata-2023.3-py2.py3-none-any.whl (301 kB)
Collecting typing-extensions>=4 (from asgiref==3.7.2->Django)
  Using cached typing_extensions-4.8.0-py3-none-any.whl.metadata (3.0 kB)
Using cached Django-4.2.8-py3-none-any.whl (6.9 MB)
Using cached asgiref-3.7.2-py3-none-any.whl (24 kB)
Using cached typing_extensions-4.8.0-py3-none-any.whl (31 kB)
Installing collected packages: tzdata, typing-extensions, sqlparse, backports.zoneinfo, asgiref, Django
Successfully installed Django-4.2.8 asgiref-3.7.2 backports.zoneinfo-0.2.1 sqlparse-0.4.4 typing-extensions-4.8.0 tzdata-2023.3
(achievement2-practice) PS C:\Users\Sider\Envs\achievement2-practice\Scripts> django-admin --version
4.2.8
(achievement2-practice) PS C:\Users\Sider\Envs\achievement2-practice\Scripts> |
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