James Keefe_CareerFoundry

Achievement 2

Exercise 2.1__Getting Started with Django

1. Write two to three sentences on why Django is so popular among web developers.

   Django simplifies many common web development tasks by containing a wide range of built-in tools and libraries. This allows for rapid deployment as well as a consistent structure for the web developer to work with.

2. 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 (social media) – Django helps handle user authentication, profile management and content display for the web platform interface.

   Pinterest (social media) – Django assists the web application version manage user accounts, allow content creation, and implement algorithms to enhance user engagement.

   Eventbrite (sales/services) – Django is used to handle event creation, ticket sales, payment processing, and overall event management features.

   Dropbox (cloud-storage) – The web interface uses Django for account management, sharing files, and team collaboration features.

   NASA (space exploration / Aeronautics) – Django assists NASA organize and display a wide range of scientific content on their platform, making it possible to share with fellow researchers and the public.

3. For each of the following scenarios, explain if you would use Django (and why or why not):

a.) You need to develop a web application with multiple users.

> **Yes, I would use Django in this scenario based on its ability in excelling at user authentication, access control, and user management features.**

b.) You need fast deployment and the ability to make changes as you proceed.

> **Yes, I would use Django here as well based on its scalability design. Django specializes in effectively handling data storage and user authentication efficiently even as the number of users increases.**

c.) You need to build a very basic application, which doesn't require any database access or file operations.

> **Django would not be practical here as this application would benefit more from a lighter framework such as Flask or Express.**

d.) You want to build an application from scratch and want a lot of control over how it works.

> **Yes, Django would make a lot of sense here. Django is highly customizable and contains a powerful ORM that allows for universal interaction with databases using Python.**

e.) You're about to start working on a big project and are afraid of getting stuck and needing additional support.

> **Getting stuck is part of any project and Django helps find a solution more effectively. Django has a large and active community of developers in addition to an extensive list of packages and extensions that can help work around some issues that come about during a project.**

Python installation

```
PS C:\Users\jvkee\Envs\web-dev> python --version
Python 3.8.7
PS C:\Users\jvkee\Envs\web-dev>
```

Virtual Environment

```
PS C:\Users\jvkee\Envs\web-dev> mkvirtualenv achievement2-practice
created virtual environment CPython3.8.7.final.0-64 in 1344ms
  creator CPython3Windows(dest=C:\Users\jvkee\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\jvkee\AppData\Local\pypa\virtualenv)
    added seed packages: pip==23.2.1, setuptools==68.2.2, wheel==0.41.2
  activators BashActivator,BatchActivator,FishActivator,NushellActivator,PowerShellActivator,PythonActivator
PS C:\Users\jvkee\Envs\web-dev>
```

Django installation

```
You should consider upgrading via the 'C:\Users\jvkee\App
PS C:\Users\jvkee\Envs\web-dev> django-admin --version
4.2.6
PS C:\Users\jvkee\Envs\web-dev>
```