1. Understanding the importance of a virtual environment in Python projects.

Ans.

* Isolate project dependencies: Different Django projects may require different versions of Django or other dependencies. Virtual environments allow each project to have its own set of dependencies
* Avoid permission issues: When you install packages globally, you may run into permission issues. Virtual environments let you install packages locally within the environment without requiring elevated privileges
* Cleaner project setup: Each project gets a clean, isolated environment, making it easier to replicate the environment for others, such as colleagues or when deploying to a production server.

1. Using venv or virtualenv to create isolated environments.

Ans. venv is included in Python 3.3+ by default, so you don’t need to install anything extra

virtualenv is an external package that provides additional features and is often faster than venv. It works with older versions of Python