

Django for Web Development & Artificial Intelligence

Lecture - 05

Instructor:

Md. Abu Noman Basar
Django Developer

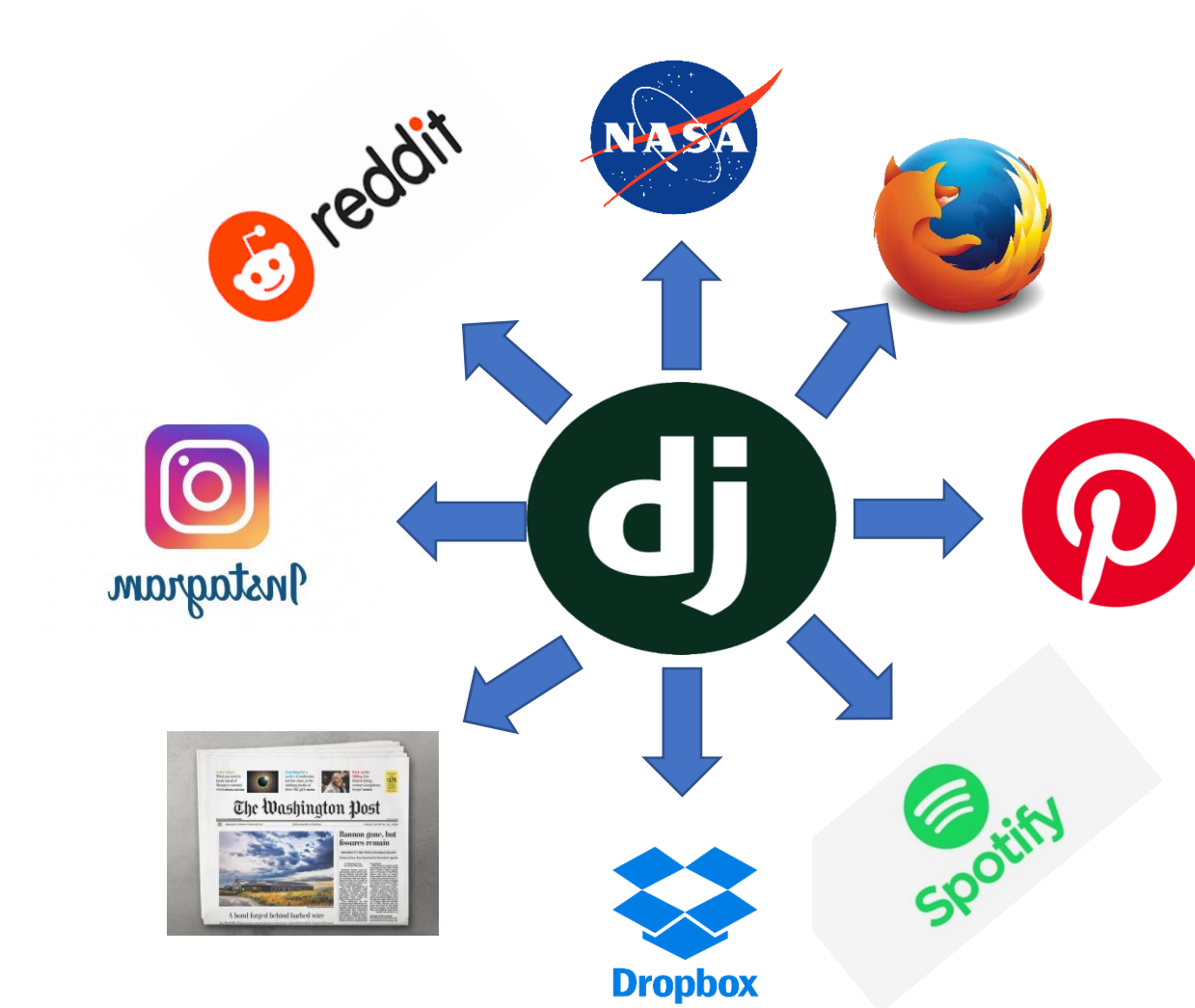
What is Django?

Django is a web application framework written in Python programming language. Django helps eliminate repetitive tasks making the development process an easy and time saving experience.

What is Framework?



Where Used Django



Why Django?

- ☐ Built With Python So Easy to Learn
- ☐ Cross-Platform
- ☐ Open Source and Huge Community Support
- ☐ Security
- ☐ Good Documentation

How to Django Works?

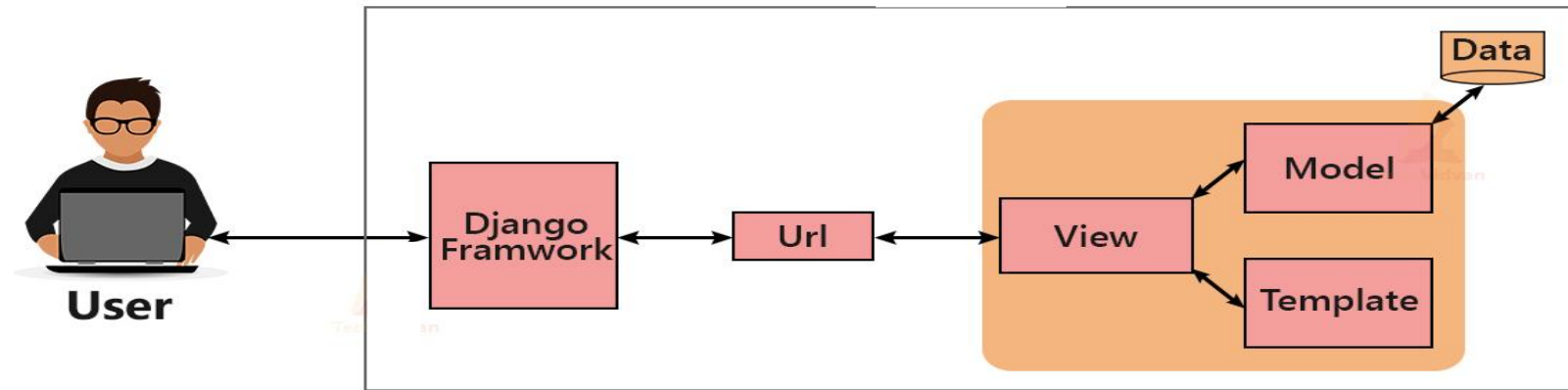
Django is based on **MVT** architecture. MVT is a software design pattern for developing a web application.



What is MVT?

- ❑ **Model:** This is an abstraction layer for structuring and manipulating the data of the Web Application. It acts as an interface for maintaining data. This is a logical data structure behind the entire application and helps to handle the database.
- ❑ **View:** This layer encapsulates the logic responsible for processing a user's request and returns a response. It is a user interface to execute the logic and interact with the models. It is responsible for displaying all or a portion of data to the user.
- ❑ **Template:** The template layer provides a designer-friendly syntax for rendering the information to be presented to the user. It contains the static parts of the desired HTML output along with some special syntax, also known as Django Template Language (DTL).

Control Flow Of MVT



MVT Vs MVC?

Model View Template (MVT)	Model View Controller (MVC)
MVT has Views for receiving HTTP request and returning HTTP response.	MVC has controller that drives both Model and View.
Templates tells how the user data will be presented.	View tells how the user data will be presented.
Controller part is managed by the framework itself.	We have to write all the control specific code.
Modifications are easy.	Modifications are difficult.
Suitable both small and large applications.	Suitable for development of large applications but not for small applications.
Django uses MVT pattern.	ASP.NET , Spring

Is it MVC or MTV??

- In Django it is called MTV rather than MVC.



Models	Describes your data
Views	Controls what users sees
Templates	How user sees it
Controller	URL dispatcher

- ☐ Visual Studio Code Install
- ☐ Extension Install inside Vs code.

Projects & Application



Django uses the concept of projects and apps to keep code clean and readable. A single Django project contains one or more apps within it that all work together to power a web application.

How to Create Project & App

- ❑ **Project:** `django-admin startproject project_name`
- ❑ **App:** `python manage.py startapp app_name`