Course Module 1: Course Unit 14: Django (Class-Based Views)

Week 17

Django (Class-Based Views)

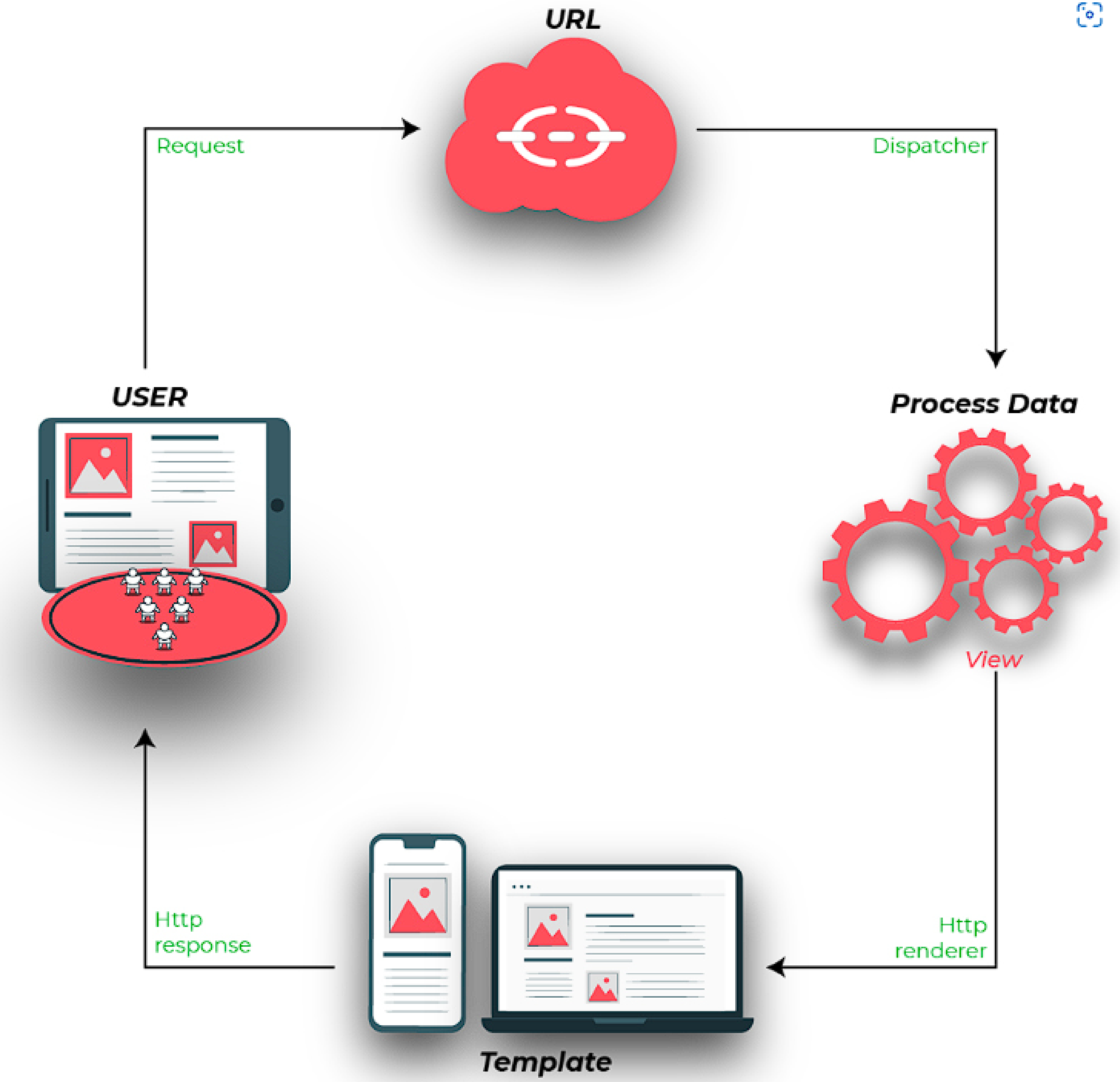
Objectives:

1. Discuss Django Class-Based Views.
2. Practice Django Class-Based Views.
3. Develop a website that will utilize HTML, CSS, JavaScript, Bootstrap and Django.

Django Views

Django Views

- Django Views are one of the vital participants of MVT Structure of Django.
- A view function is a Python function that takes a Web request and returns a Web response. This response can be the HTML contents of a Web page, or a redirect, or a 404 error, or an XML document, or an image, anything that a web browser can display.
- Django views are part of the user interface — they usually render the HTML/CSS/Javascript in your Template files into what you see in your browser when you render a web page.


URL
Request
Dispatcher
USER
Process Data
View
Http
response
Http
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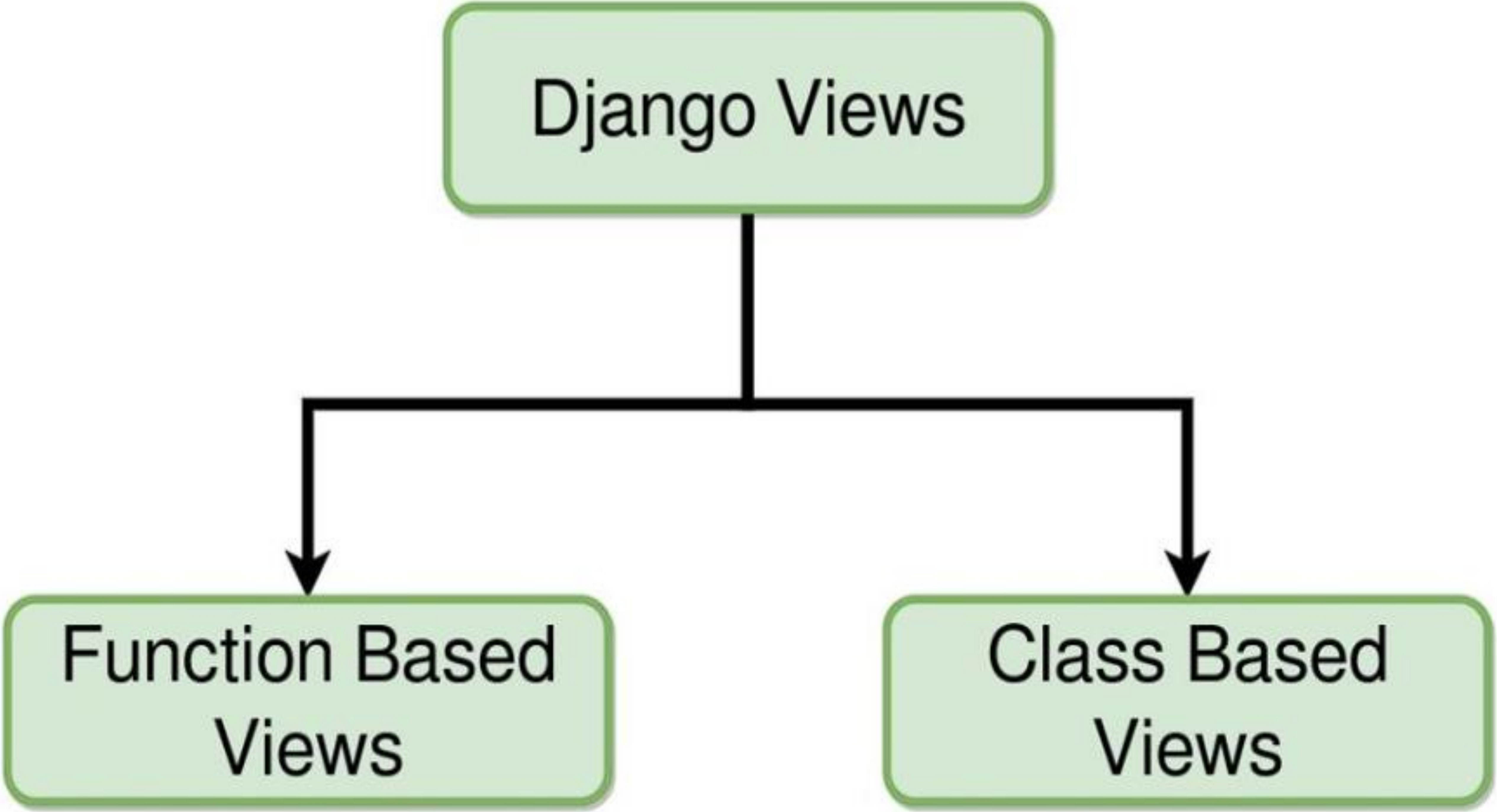
Template


Django Views
Function Based Views
Class Based Views

Django Views

Function Based Views

- Function based views are writer using a function in python which receives as an argument HttpRequest object and returns an HttpResponse Object.
- Function based views are generally divided into 4 basic strategies, i.e., CRUD (Create, Retrieve, Update, Delete). CRUD is the base of any framework one is using for development.

Django Views

Class Based Views

- ➢ Class-based views provide an alternative way to implement views as Python objects instead of functions.
- ➢ They do not replace function-based views, but have certain differences and advantages when compared to function-based views:

- Organization of code related to specific HTTP methods (GET, POST, etc.) can be addressed by separate methods instead of conditional branching.
- Object oriented techniques such as mixins (multiple inheritance) can be used to factor code into reusable components.

Django Views

Class-based views are simpler and efficient to manage than function-based views.

A function-based view with tons of lines of code can be converted into class-based views with few lines only.

This is where Object-Oriented Programming comes into impact.

Django is a Python-based web framework that allows you to quickly create web applications. It has built-in admin interface which makes easy to work with it. It is often called Batteries included framework because it provides built-in facilities for every functionality.

Class Based Generic Views are advanced set of Built-in views which are used for implementation of selective view strategies such as Create, Retrieve, Update, Delete.

Class based views simplify the use by separating GET, POST requests for a view.

CRUD

CreateView – create or add new entries in a table in the database.

Retrieve Views – read, retrieve, search, or view existing entries as a list(ListView) or retrieve a particular entry in detail (DetailView)

UpdateView – update or edit existing entries in a table in the database

DeleteView – delete, deactivate, or remove existing entries in a table in the database

FormView – render a form to template and handle data entered by user

Class Based Generic Views Django (Create, Retrieve, Update, Delete) - GeeksforGeeks

Applications???

Any questions???

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