



# COURSE UNIT



## Bachelor of Technical-Vocational Teacher Education MAJOR IN COMPUTER PROGRAMMING: WEB DEVELOPMENT 1

COURSE MODULE	COURSE UNIT	WEEK
1	11	14
Django (Advance Concepts)		

### CHECKLIST

- ✓ Read course and unit objectives
- ✓ Read study guide prior to class attendance
- ✓ Read required learning resources; refer to unit terminologies for jargons
- ✓ Proactively participate in classroom discussions
- ✓ Participate in weekly discussion
- ✓ Answer and submit course unit tasks



### UNIT EXPECTED OUTCOMES (UEOs)

At the end of this unit, the students are expected to:

#### *Cognitive:*

1. Discuss Django intermediate and advanced concepts.
2. Conclude Django intermediate and advanced concepts.
3. Prepare a Django model using Django intermediate and advanced concepts.

#### *Affective:*

1. Listen attentively during class discussions
2. Demonstrate tact and respect when challenging other people's opinions and ideas
3. Accept comments and reactions of classmates on one's opinions openly and graciously.

---

*Psychomotor:*

1. Participate actively during class discussions and group activities
2. Express opinion and thoughts in front of the class

## **REQUIRED READINGS**

*Django Tutorial.* (2022). <https://data-flair.training/blogs/django-tutorial/>

## **STUDY GUIDE**

### **Django**

- high-level Python web application framework
- backend framework used to resolve problems of connectivity with databases, other server problems, SEO solutions
- Django is a registered trademark of the Django Software Foundation, and is licensed under BSD License

### **Django Intermediate Level Topics**

#### ➤ **Django Admin Interface**

Django's admin interface is a built-in interface to manage the database objects. It comes with its own user model and provides the permission system.

#### ➤ **Django Database**

Django can work with multiple databases.

#### ➤ **Django Redirect**

URL redirection is yet another important feature of Django.

#### ➤ **Django Cookies Handling**

Almost all websites use cookies to store information on the client machine. Making and serving cookies can be complex. Django can easily handle this task. Cookies enable the server to store the state of the client.

#### ➤ **Django Form Handling and Validation**

Form validation is an important feature you may require in your app. Generating form and making it the same as models is also difficult.

#### ➤ **Django File Upload**

Django manages user-uploaded files by associating their names with model objects.

#### ➤ **Django Static File Handling**

Static files are one of the main requirements of any website.

#### ➤ **Django Bootstrap**

Bootstrap is a very popular front-end framework. It provides various UI elements to create attractive web pages.

#### ➤ **Django CRUD**

---

---

## Django Advanced Topics

- Django Sessions
- Django Request and Response
- Django Emails
- Django Migrations
- Django ORM
- Django Caching
- Django Admin Customization
- Django Exceptions & Error Handling
- AJAX in Django
- Django Web Hosting
- Django CMS
- Django REST Framework
- Django Logging

## TERMINOLOGIES

**BROWSER** - a computer program with a graphical user interface for displaying and navigating between web pages.

**CLIENT** - a program, person or things that are capable of obtaining services provided by another program.

**CODING** - sometimes called computer programming, is how we communicate with computers.

**DOMAIN NAME** - refers to your website address. This is what users type in a browser's search bar to directly access your website.

**FRAMEWORK** - a layered structure indicating what kind of programs can or should be built and how they would interrelate.

**FRONT-END** - refers to the user interface / client-side, everything with which the user interacts.

**HYPERTEXT** - a word, phrase or chunk of text that can be linked to another document or text.

**HYPERTEXT TRANSFER PROTOCOL (HTTP)** - The communications protocol used to connect to Web servers on the Internet or on a local network (intranet).

---

---

**INTERNET PROTOCOL** - a set of rules governing the format of data sent over the internet or other network.

**IP ADDRESS (INTERNET PROTOCOL ADDRESS)** - a series of numbers that identifies any device on a network.

**SEARCH ENGINE** - a program that searches for and identifies items in a database that correspond to keywords or characters specified by the user, used especially for finding particular sites on the World Wide Web.

**SERVER** - a computer or system that provides resources, data, services, or programs to other computers, known as clients, over a network.

**WEB PAGES** - a hypertext document on the World Wide Web.

**WEBSITE** - a set of related web pages located under a single domain name, typically produced by a single person or organization.

**WIREFRAME** - a simplified visual guide that represents the skeletal framework of a website.

**WORLD WIDE WEB** - an information system on the internet which allows documents to be connected to other documents by hypertext links, enabling the user to search for information by moving from one document to another.

## **FURTHER READINGS**

*Django Tutorial.* (2022). <https://data-flair.training/blogs/django-tutorial/>

## **UNIT TASK**

- Proactively participate in classroom discussions
- Answer and submit course unit tasks

## **REFERENCES**

*Django Tutorial.* (2022). <https://data-flair.training/blogs/django-tutorial/>

*Django Tutorial.* (2020). <https://www.geeksforgeeks.org/django-tutorial/>

---

---

*Django Tutorial.* (2022). <https://developer.mozilla.org/en-US/docs/Learn/Server-side/Django/Introduction>

*Django Tutorial.* (n.d.). <https://www.tutorialspoint.com/django/index.htm>

*Django Tutorial.* (n.d.). <https://www.w3schools.com/django/index.php>

*Getting started with Django.* (n.d.). <https://www.djangoproject.com/start/>

---