COURSE UNIT

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

COURSE MODULE	COURSE UNIT	WEEK
1	12	15
Django (Authentications)		

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. Explain Django authentications.
2. Complete the program to manipulate Django authentications.
3. Devise adding authentications on the previous programs.

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

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

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

There are two types of websites: static and dynamic. Django is a framework for developing dynamic websites. While a static website is one that solely presents information, there is no interaction (beyond simple page requests) that gets registered to a server. In a static website, the server sends HTML, CSS, and JavaScript to a client and that's it. More capabilities require a dynamic website, where the server stores information and responds to user interaction beyond just serving pages. One major reason to develop a dynamic site is to authenticate users and restrict content.

Django Authentications

Django comes with a user authentication system. It handles user accounts, groups, permissions and cookie-based user sessions.

Django authentication system handles both authentication and authorization. Briefly, authentication verifies a user is who they claim to be, and authorization determines what an authenticated user is allowed to do. Here the term authentication is used to refer to both tasks.

The auth system consists of:

- Users
- Permissions: Binary (yes/no) flags designating whether a user may perform a certain task.
- Groups: A generic way of applying labels and permissions to more than one user.
- A configurable password hashing system
- Forms and view tools for logging in users, or restricting content
- A pluggable backend system

The authentication system in Django aims to be very generic and doesn't provide some features commonly found in web authentication systems. Solutions for some of these common problems have been implemented in third-party packages:

- Password strength checking
- Throttling of login attempts
- Authentication against third-parties (OAuth, for example)
- Object-level permissions

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

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

UNIT TASK

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

REFERENCES

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