

ASSIGNMENT-3

1. What is Flask, and how does it differ from other web frameworks?

ANS flask is a lightweight, micro web framework for Python that emphasizes simplicity and flexibility. Unlike larger frameworks, Flask provides only essential tools, allowing developers to build web applications with minimal hassle. Its modular design allows for easy extension with additional functionality as needed. Flask's minimalistic approach results in a low learning curve, making it accessible to developers of all skill levels. Despite its simplicity, Flask boasts a thriving community and ecosystem of extensions and libraries, making it a popular choice for developers seeking a customizable and lightweight framework for their web projects.

2. Describe the basic structure of a Flask application.?

Ans: A Flask application typically consists of several key components:

Application Object: Represents the Flask instance and is used to configure the application and define routes.

Routes: URL patterns associated with functions (views) that handle HTTP requests.

Views/Handlers: Functions that process requests, execute logic, and return responses.

Templates: HTML files dynamically rendered using a template engine like Jinja2.

Static Files: CSS, JavaScript, and images served directly to clients.

Configuration: Parameters like database connections and debug mode settings.

Extensions: Optional add-ons providing extra features like database integration or authentication.

These components work together to create web applications in Flask, offering flexibility and scalability for a variety of project sizes and requirements.