

## SMART INTERN 2-APSCHE

### AI/ML Training

#### Assessment - 3

- ① What is flask, and how does it differ from other web frameworks?

Ans. Flask is a python programming language micro web framework. Flask is classified as a micro framework as it does not rely on external libraries to perform framework function.

→ lightweight: It is a lightweight framework as it is independent of external libraries.

→ independent: Flask gives independent or full control to the developer for creating applications.

- ② Describe a basic structure of a flask application.

The main flask application will be in the app directory, which will have an `__init__.py` special file to make it a package for imports to make it work properly, and it will contain a function for creating the flask application instance.



3) How do you install flask and setup a flask project:

- ~~Ans~~ 1. Install virtual Environment, install virtualenv on linux
2. Create an Environment, create an Environment in linux and macos.
  3. Activate the Environment
  4. Install flask.
  5. Test the Development Environment.

Setup a flask project.

1. Prerequisites
2. project overview
3. Get started. create a virtual Environment add dependencies.
4. Initiate your flask project Run the flask development server.
5. leverage Blueprints
6. Introduce templates.
7. Improve the user experience
8. Conclusion.



④ Explain the concept of routing in Flask and how it maps URLs to python functions.

Ans. By using the `route()` decorator, we can define routes for different URLs and map them to the appropriate view functions that will generate the desired response.

5. What is a template in flask and how it is used to generate dynamic HTML content?

Ans. Templates are files that contain static data as well as placeholders for dynamic data. A template is rendered with specific data to produce a final document. Flask uses the Jinja2 template library to render templates.

In the application, you will use templates to render HTML which will display in the user's browser.

6. Describe how to pass variables from flask routes to templates for rendering?

Ans. You can pass variables as argument to `render_template()` to use those variables in a template file.



⑨ Explain the process of fetching values from templates in Flask and performing arithmetic calculations?

Ans. The `fetchone()` and `fetchall()` are the methods of python MySQL connector and they are used to display data.

⑩ Discuss some best practices for organizing and structuring a flask project to maintain Scalability and Readability?

Ans. 1. Installing flask and Flask SQLAlchemy  
2. Creating a Configuration file.  
3. Creating a flask application factory.  
4. Creating flask Blueprint  
5. Adding flask - SQLAlchemy models to your flask application.