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Why we use Django rather than Flask in Asset Management System

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Abstract: Python provide number of frameworks for web development and other applications by Django, Flask, Bottle, Web2py, CherryPy and many more. Frameworks are efficient and versatile to build, test and optimize software. A web framework is a collection of package or module which allows us to develop web applications or services. It provides a foundation on which software developers can built a functional program for a specific platform.

The main purpose of this study about python framework is to analyze which is better framework among Django or flask for web development. The study implement a practical approach on PyCharm. The result of this study is - "Django is better than flask".

I. INTRODUCTION

Asset management refers to the process of developing, operating, maintaining, and selling assets in a cost-effective manner. Most commonly used in finance, the term is used in reference to individuals or firms that manage assets on behalf of individuals or other entities. Asset Management System are used to manage all the assets of a company, we can use this software to manage assets in any field i.e. academics, medical, etc. Asset Management is also increasingly used in both the business world and public infrastructure sectors to ensure a coordinated approach to the optimization of costs, risks, service/performance and sustainability. SBI Fund Asset Management Company is the oldest asset management company which manages assets over two and half decades in investing and managing funds.

II. PYTHON FRAMEWORKS WHICH WE CAN USE FOR DEVELOPMENT

A. Django

Django is a high-level Python web framework that enables rapid development of secure and maintainable websites. It is based on MVT (Model View Template) design pattern. It is very demanding due to its rapid development feature.

B. Flask

Flask is a micro web framework written in Python. It is classified as a micro framework because it does not require particular tools or libraries. It is based on Werkzeug WSGI toolkit and Jinja2 template engine.

C. Web2py

Web2py is defined as a free, open-source web framework for agile development which involves database-driven web applications. Web2py framework follows the Model-View-Controller pattern of running web applications.

D. Bottle

Bottle is a fast, simple and lightweight WSGI micro web-framework for Python. It is distributed as a single file module and has no dependencies other than the Python Standard Library.

E. Pyramid

Pyramid is a general, open source, web application development framework built in python. It allows python developer to create web applications with ease.

F. CherryPy

CherryPy allows developers to build web applications in much the same way they would build any other object-oriented Python program. Using CherryPy, web applications can be built in a faster and more reliable way.

We can use all these frameworks when we work with python but most of the companies uses Django and flask because these are easy to learn & implement and documentation of these framework are very good and vast.



III.SOFTWARE DESIGN

A. Login

User cannot manage their assets before login in the website. This process contains of a username and a password used by user while registration.

B. Resgitration

Using registration user can register in the website once register user can then login in the website and can manage their assets.

C. Forget Password

If user forgot the password, user will receive a link on a registered E-mail id to set a new password and access that software.

D. Home Page

A home page has a sidebar in which we can add, edit or delete the information of supplier, buyer, category, product, order and delivery. It also contains information regarding previous orders, products, suppliers and buyers.

IV. SOFTWARE MODULES

A. Supplier Module

For adding supplier details in supplier module is full name, address, email address, username and password. These details will get stored in the database.

B. Buyer Module

For adding buyer details in buyer module is full name, address, email address, user name and password. These details will get stored in the database.

C. Product Module

To add a product in the product module, we have to give the details of product name and the number of quantity. These details will get stored in the database.

D. Order Module

Order module contain details of supplier, product and model of product, color of product, buyer and category of the product. These details will get stored in the database.

E. Delivery Module

Delivery module contains details of the product name and name of courier company. These details will get stored in the database.

V. CODING LANGUAGES

A. HTML

HTML stands for HyperText Markup Language. It is most widely used on web to develop web pages. HTML was created by Berners-Lee in late 1991 but "HTML 2.0" was the first standard HTML specification which was published in 1995. Its latest version is HTML 4 and it supports more scripting languages, multimedia options, better printing facilities, and style sheets.

B. CSS

Cascading Style Sheets (CSS) is a stylesheet language used to describe the presentation of a document written in HTML or XML. CSS describes how elements should be rendered on screen, on paper, in speech, or on other media. It is used to style and layout web pages to change the font, color, size, and spacing of your content, split it into multiple columns, or add animations. It saves time, helps to load pages faster, easy to maintain and up to global web standards.

C. JavaScript

JavaScript is a light-weight object-oriented programming language which is used by several websites for scripting the webpages. It is easy to use because it is integrated with java language and HTML. It contains various framework libraries like Angular, React, jQuery, etc. All major web browsers have a dedicated JavaScript engine to execute the code on the user's device.

D. Bootstrap

Bootstrap is a free and open-source framework for creating websites and web applications. It's the most popular HTML, CSS, and JS framework for developing responsive, mobile first projects on the web. Bootstrap is the most popular front-end framework. Bootstrap provides a clean and uniform solution for building an interface for developers. It contains beautiful and functional built-in components which are easy to customize. It also provides web based customization.



E. Python

Python is a general-purpose interpreted, interactive, object-oriented, and high-level programming language. Python is a high-level, interpreted, interactive and object-oriented scripting language. Python is designed to be highly readable. It can be used on a server to create web applications. It works on different platforms (Windows, Mac, Linux, Raspberry Pi, etc.). It can connect to database systems. It can also read and modify files.

F. Django

Django is a high-level Python web framework that encourages rapid development and clean, pragmatic design. It makes it easier to build better web apps quickly and with less code. It gives you ready-made components to use and that too for rapid development. It is free and open source, has a thriving and active community, great documentation, and many options for free and paid-for support. It is based on MVT (Model-View-Template) architecture. MVT is a software design pattern for developing a web application.

VI. ADVANTAGES

A. Reduced Risk of Overselling

Asset management helps track what's in stock and what's on backorder, so you don't oversell products.

B. Cost Savings

Stock costs money until it sells. Carrying costs include storage handling and transportation fees, insurance and employee salaries. Inventory is also at risk of theft, loss from natural disasters or obsolescence.

C. Avoiding Stockouts and Excess Stock

Better planning and management helps a business minimize the number of days, if any, that an item is out of stock and avoid carrying too much inventory. Learn more about solving for stockouts in our "Essential Guide to Inventory Control."

D. Better Terms with Vendors and Suppliers

Asset management also provides insights about which products sell and in what volume. Use that knowledge as leverage to negotiate better prices and terms with suppliers.

E. More Productivity

Good asset management solutions save time that could be spent on other activities.

F. Increased Profits

A better understanding of both availability and demand leads to higher asset turnover, which leads to greater profits.

FLASK	DJANGO
Created in 2010	Created in 2005
Python web framework built for rapid development.	Python web framework built for easy and simple projects.
Flask is WSGI framework.	Django is a Full Stack Web Framework.
Flask provides support for API.	Django doesn't have any support for API.
Flask allows you to use multiple types of databases.	Django doesn't offer multiple types of databases.
Flask has no default support for forms, but you can use WTForms to fill the gap.	Django comes Form with which can be integrate with the ORM and the admin site.
Flask does not offer dynamic HTML pages.	Django offers dynamic HTML pages.
The request based object is imported from the flask module, which is a global variable in Flask.	All views are set as an individual parameter in the Django.

VII. FLASK VS DJANGO



Flask offers a diversified working style.	Django offers a Monolithic working style.
It supports an extension which could be implemented in the framework.	Django has its own module library. So, it stores several prewritten codes.
Flask web framework uses a Ninja2 template design.	Django web framework helps you to utilize the View web templating system.
Flask does not offer a built-in bootstrapping tool.	Django-admin enables developers to start building web applications without any external input.
Flask framework is suitable for single application.	Django framework allows developers to divide a project into multiple page application.
Flask Web Framework doesn't offer support for third-party applications.	Django Web Framework supports a large number of third-party applications.

VIII. CONCLUSION

Asset management has to do with keeping accurate records of goods that are ready for shipment. This often means having enough stock of goods to the asset totals as well as subtracting the most recent shipments of finished goods to buyers. When the company has a return policy in place, there is usually a sub-category contained in the finished goods asset to account for any returned goods that are reclassified or second grade quality. Accurately maintaining figures on the finished goods inventory makes it possible to quickly convey information to sales personnel as to what is available and ready for shipment at any given time by buyer. Asset management is important for keeping costs down, while meeting regulation. Supply and demand is a delicate balance, and asset management hopes to ensure that the balance is undisturbed. Highly trained Asset management and high-quality software will help make Asset management a success. The ROI of Asset management will be seen in the forms of increased revenue and profits, positive employee atmosphere, and on overall increase of customer satisfaction.

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