Architecture Style Assignment

Name: Wai Zhi Yan

Matric Number: 207258

Lecture Group: 1

Identify any three software frameworks from the web and identify the architecture style on it.

1. Django

Architecture style: Model-View-Controller

Justification:

Python is a programming language that is used in the Model-View-Template framework called Django. This framework is used by well-known companies including Google, Youtube, and Instagram. Django brags about having several functionalities, including messaging and authentication, in its batteries-included feature. It adheres to both the DRY pattern and the Convention Over Configuration design. In Django, security is crucial. Django either implements security protections in the framework itself, including restricting code execution in the template layer, or it gives developers the methods and resources they need to create safe websites.

**Model** (data layer):

The model layer is stored all the data and information in objects, classes and other data models. Any update of data will be occurred in the Model.

**View** (Presentation layer):

This layer is a collection of HTML pages or template system such as JSP, ASP or even PHP that interact with the browser. Interface that interacts with the users also consider in View. In this case, the presentation layer sends requests to the Controller according to the users’ requirement and retrieve information from the Model.

**Controller** (Business Logic Layer):

In this layer, it assists to manage the interaction between View and Model. Any changes made in either Model or View layer is manipulated by the Controller in term of maintaining the consistency and synchronization.

Reference: <https://hackr.io/blog/web-development-frameworks>

1. Laravel

Architecture style: Model-View-Controller

Justification:

A web application framework with expressive and beautiful syntax is called Laravel. To be genuinely meaningful, development must be a fun and creative process, in our opinion. Laravel aims to make development less painful by making routine processes used in most web projects easier, like:

* Simple, fast routing engine.
* Powerful dependency injection container.
* Multiple back-ends for session and cache storage.
* Database agnostic schema migrations.
* Robust background job processing.
* Real-time event broadcasting.

Last but not least, Laravel also offers the features required for big, sophisticated applications while yet being easily accessible and powerful. You have the full toolkit needed to construct whatever application you are charged with using a wonderful blend of innovation, simplicity, and elegance.

Reference: <https://github.com/laravel/framework>

1. Rails

Architecture style: Model-View-Controller

Justification:

Ruby-based Model-View-Controller framework known as Rails is a well-liked framework among programmers. Major Rails users include GitHub, Hulu, Shopify, Airbnb, and Shopify. Rails is regarded as a beginner-friendly framework, and the fact that its advantages and disadvantages are debatable makes it easier for newcomers to start developing websites rapidly. The library-like dependencies known as gems, which help you create applications even more quickly and effectively, come in a variety of useful forms for rails. You may quickly become an expert in rails because to the helpful and dependable Rails community as well as the abundance of tutorials, screencasts, and resources available.

However, the biggest drawback of rails is that it takes a lot of work to deploy and run them in a production environment. Additionally, the learning curve for rails is steep if you delve deeper into the framework to discover its secrets.

Rails Github Link: <https://github.com/rails/rails>