API Layer Migration Plan

PURPOSE

This Migration plan aims to replace the old **PHP/Lumen** API Layer with a new version that was implemented using **Python Flask** Framework.

DESCRIPTION OF IMPLEMENTATION

The APL Layer was implemented in **Python/Flask** to replace the existing **PHP/Lumen** which is inadequate for expanding operations and performance. The implementation of this API Layer is a deliberately planned and highly technical effort. This description of the implementation will provide all stakeholders with a detailed understanding of how the implementation will occur.

Upon completion of the Implementation for the API Layer, a beta version will be deployed on a development server by **The DevOps team**. The **Testing team** will write all possible test cases and scenarios based on the requirements which is mentioned in **API Layer Documentation** in order to test data integrity, security, validation, and compare response data between the old and new Layer.

Once testing is complete and functionality of the new **API Layer** is verified, the **Front-End** team will have to read the Documentation of the New Layer to fully understand its functionality and identify what changes were made to determine how the replacement process is going to be, during this process the **Back-End** team will support and give detailed clarifications for any information the Front-End needs to go throw this process quickly.

After replacing all the old routes of the PHP Layer with the new one of Python Flask Layer. Now it is time for **DevOps team** to deploy the changes of the **Front-End** onto the development server. The **Testing Team** will then verify functionality of the **Front-End** changes.

Once functionality of **Front-End** changes on the development server is confirmed, **DevOps** team will deploy these changes and the API Layer onto staging server. The **Testing team** will be able to test its functionality on an actual server.

Once functionality on staging servers is confirmed, then the transition from the PHP/Lumen to the new Python/Flask and **Front-End** changes is successfully done. At this point in time, API Layer and Front-End changes of all Variiance services is ready to go live. the DevOps Team will deploy the new API Layer and Front-End changes onto the production server, deploying all these changes onto production server formally ends the implementation phase of this plan.

MAJOR TASKS

The API Layer Team has developed a list of major tasks required to successfully implement and migrate this Layer. All of these tasks have been vetted by the project team to ensure they are within the scope of this project. Additionally, all major tasks have been assigned to the responsible individuals The list of major tasks for the API Layer Migration Plan follows:

1. Read API Layer Documentation: **Testing** and **Front-End** team

   This task includes understanding the structure of the new API Layer and the changes that has been added

2. Deploy API Layer: **DevOps** team

   This task includes deployment of the new API Layer to the **Development server**

3. Test API Layer functionality: **Testing** team

   This task includes testing the functionality of the API Layer after deploying it API layer to the **Development Server**

4. Transition from the PHP/Lumen to the new Python/Flask: **Front-End** and **Back-End** team

   This task includes replacement of old routes and its body of the PHP Layer with the new one of Python Layer

5. Deploy **Front-End** changes: **DevOps** team

   This task includes the deployment of Front-End changes on the development server

6. Test Front-End changes: **Testing** Team

This task includes the testing the functionality of the **Front-End** changes

7. Deploy API Layer and Front-End changes: **DevOps** team

This task includes deployment the API Layer on the staging servers to perform the final test.

8. Test **API Layer** and **Front-End** changes: **Testing** team

This task includes testing the functionality of **API Layer** and Front-End changes on the staging environment.

9. Deploy **API Layer** and **Front-End** changes: **DevOps** team

Finally, going **LIVE** this task includes deployment of the new **API Layer** to the Production server