Project Design Phase-I
Solution Architecture

Date	21 October 2023
Team ID	593213
Project Name	Lymphography Classification using ML
Maximum Marks	2 Marks

Solution Architecture:
The solution architecture for Lymphography classification is a sophisticated framework designed to automate the diagnosis of lymphatic disorders using advanced machine learning techniques. At its core, the architecture comprises a user-friendly interface that allows for the seamless upload of lymphography data. This data then undergoes a rigorous preprocessing stage, enabling us to train the model in an effective way. It offers a powerful tool to healthcare professionals for more precise and timely assessments.

Our solution leverages ML models to address the Lymphography classification problem effectively.

- **Data Collection:** This component is responsible for collecting lymphography data and their corresponding labels. The data is stored in a data lake, while the labels are stored in a database.
- **Data Processing:** This component is responsible for processing the lymphography data to prepare them for training. This includes tasks such as outlier removal, SMOTE, etc.
- **Model Training:** This component is responsible for training the machine learning model using the preprocessed lymphography data. The trained model is stored in a model registry.
- **Model Deployment:** This component is responsible for deploying the trained model to a production environment. The deployed model is used to classify new lymphography data.
- **User Interface:** This component provides a user interface for interacting with the system. Users can input data to be classified, and view the results of classifications.

Solution Architecture Diagram