Milestone 3 - Individual Report

- Initially, a thorough understanding of the project requirements was established by me, focusing on the need for a robust, scalable, and efficient system for taxi fare prediction. This analysis helped in identifying the key components and services necessary for the system architecture.
- Preliminary diagrams and outlines were created to visually represent the connections between the identified components. These sketches served as a foundation for the detailed architecture diagram.
- Industry-standard diagramming tools such as Lucidchart, draw.io, or similar software were utilized to create the detailed system architecture diagram. These tools facilitated the creation of a clear and visually appealing representation of the system, incorporating AWS service icons and appropriate notations.
- The AWS services, including S3, SageMaker, API Gateway, and CloudWatch, were identified as the core components of the architecture. Their placement within the diagram was strategically determined to depict the flow of data and processes accurately.
- Connections between the components were meticulously mapped to demonstrate the interaction between each service. This step involved highlighting the data flow from S3 to SageMaker, the prediction request flow through API Gateway, and the monitoring and logging activities through CloudWatch.
- Clear annotations and labels were added to the diagram to provide a comprehensive understanding of each component's function and the overall system workflow. This step ensured that the team members could easily interpret the diagram without ambiguity.
- The initial draft of the system architecture diagram underwent multiple rounds of review and iteration. Feedback from the team was incorporated to refine the diagram and ensure its accuracy and clarity.

The development of the system architecture diagram for the Taxi Fare Prediction System involved a systematic approach that encompassed thorough requirement analysis, collaborative discussions, utilization of appropriate tools, and an iterative development process. The resulting diagram effectively communicates the intricate workings of the system, highlighting the integration of AWS services and their pivotal roles in the overall functionality of the system.