# Project Name

Clio Muse Tours

# Who is the client?

Our client is Clio Muse Tours, a cutting-edge tour company offering immersive guided experiences across various global destinations. The platform is the vision of CEO, Yiannis Nikolopoulos, a visionary leader who has successfully steered the company to significant growth. Under Nikolopoulos’s guidance, Clio Muse Tours have seen a considerable revenue increase of 65% in 2023 compared to the previous year. The company has also expanded its team from 19 to 40 members, indicating a strong upward trajectory. Another key milestone in the company’s journey under Nikolopoulos was the transition from a private company to a société anonyme. Nikolopoulos’s focus on sustainable scaling and building a highly efficient team stands testament to his leadership. You can learn more about the platform [here](https://cliomusetours.com).

# How can we help?

Clio Muse Tours has expressed the need for an integrated ticket prediction system to predict venue demand. To address this, we propose the development of a machine learning model that will analyze historical data, seasonal trends, and external factors to accurately forecast venue demand. This will aid in optimizing ticket pricing and managing inventory more effectively, thereby enhancing user experience.

This solution will also provide valuable insights into customer behavior, allowing Clio Muse Tours to tailor their offerings better to meet demand. In addition, the system will be capable of predicting peak periods of demand, enabling better preparation and resource allocation.

# Tech Stack

The solution will leverage a wide array of technologies, including:

* Python: This programming language will be used in conjunction with libraries such as scikit-learn and TensorFlow for developing the machine learning model.
* Node.js: This JavaScript runtime environment will be pivotal for executing the server-side of our application.
* MongoDB: This source-available cross-platform document-oriented database will store our application data in flexible, JSON-like documents.
* AWS (EC2, S3, SageMaker): These cloud services from Amazon Web Services will handle our computing, storage, and machine learning requirements respectively.
* REST APIs: These will be used to ensure communication between our application and the client’s existing systems.
* Git: This distributed version control system will be used to track changes in our source code during software development.

# Timeline

The project is expected to span across a period of 3-4 months, with each stage of the project meticulously planned:

* 1 month for data collection and preprocessing
* 1-2 months for model development and testing
* 1 month for integration and deployment

This timeline will ensure that we deliver a robust and efficient solution in a timely manner.

In conclusion, we aim to bring about a significant enhancement in the operations of Clio Muse Tours by integrating our proposed ticket prediction system. Our solution will not only improve the platform’s user experience but also provide valuable insights for the company to grow and prosper.