



Match Ticketing Analysis Tool Proof of Concept (POC)



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Introduction

Match Ticketing Analysis Tool POC provides a solid foundation for building a more comprehensive ticketing system, enabling event organizers to make data-driven decisions and optimize their ticket sales strategies

Objective

- Create a tool to handle CRUD operations for ticket sales.
- Analyze ticket sales data to optimize pricing and promotions.
- Predict future ticket sales trends.
- It provides functions for analyzing and predicting ticket sales trends.
- The tool uses Object-Oriented Programming (OOP) and Data Structures and Algorithms (DSA) principles.

Requirements

- Python 3.8 or higher
- Unittest library for unit testing
- Database Management System

Ticket Sales missions and goals

- The Ticket Sales represents a collection of tickets
- **Efficient Ticket Management:** The Ticket Sales class allows for efficient management of ticket sales data, including adding, selling, and deleting tickets.
- **Improve Ticket Validation:** Enhance the class to include ticket validation to prevent duplicate or invalid tickets from being added or sold.
- **Easy Data Retrieval:** The class provides methods to retrieve ticket data, making it easy to access and analyze sales information.

CRUD Operations missions and goals

- CRUD: Create, Read, Update, Delete
- Helps us to modify the code
- In the project we can create a new ticket, Read the ticket, Update the price of the ticket and to delete the ticket when it is required
- It helps to keep the data in dynamic manner

Analyzing and predicting Ticket Sales Data

- **Data-Driven Insights:** The analysis function provides valuable insights into ticket sales data, enabling informed decisions on pricing and promotions.
- **Predictive Capabilities:** The prediction function offers a basic trend analysis, which can be improved with machine learning algorithms to forecast future sales.
- **Enhance Prediction Model:** Develop a more sophisticated prediction model using machine learning algorithms to improve the accuracy of sales forecasts.

Unit Testing

- **Reduces Bugs:** Thorough testing helps identify and fix bugs early in the development process.
- **Improves Code Maintainability:** Well-structured tests make it easier to modify or extend the codebase without introducing new errors.
- **Improve Test Efficiency:** Optimize the tests to run faster and more efficiently, reducing the overall testing time.

Realtime Applications

- Sports Teams and Leagues
- Concert and Festival Promoters
- Theater and Performing Arts
- Travel and Tourism

Conclusion and future enhancements

- The Match Ticketing Analysis Tool POC is a functional prototype
- Future work includes integrating a machine learning algorithm for prediction
- Real-time Data Updates
- User Authentication and Authorization