MODEL DEPLOYMENT

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THE BEST MODEL

After evaluating the regression and Random Forest models in the energy consumption analysis system, the best model can be determined based on its performance and accuracy. By comparing evaluation metrics such as Mean Absolute Error (MAE), Root Mean Squared Error (RMSE), and R-squared (R^2), the model that demonstrates the lowest MAE and RMSE values and the highest R^2 value can be considered the best. A lower MAE and RMSE indicate better accuracy in predicting energy consumption, as they represent smaller differences between predicted and actual values. Additionally, a higher R^2 value signifies a better fit of the model to the data, indicating its ability to explain the variance in energy consumption. By carefully analyzing these metrics, the best model for the energy consumption analysis system can be identified, ensuring reliable and precise predictions for energy-efficient appliances.

INTEGRATE INTO WEB FRAMEWORK

To integrate the energy consumption analysis system into a web framework that is easy to learn and use, Flask can be a suitable choice. Flask is a lightweight and beginner-friendly Python web framework that offers simplicity and flexibility. It provides the necessary tools and features for developing web applications, making it easier to incorporate the energy consumption analysis functionality into a user-friendly web interface. Flask's minimalistic design and intuitive API make it straightforward to learn and understand, even for developers new to web development. It offers seamless integration with various Python libraries and modules, allowing easy incorporation of the regression and Random Forest models for energy consumption prediction. With its clear documentation and active community support, Flask enables efficient development, testing, and deployment of the energy consumption analysis system as a web application, providing a user-friendly interface for users to access and utilize the system's features.