**Future Sales Prediction README**

**Overview**

This repository contains code and documentation for a future sales prediction project. The goal of this project is to build a machine learning model that can predict future sales for a retail business based on historical sales data.

**Project Structure**

data/: This directory contains the dataset used for training and testing the model.

notebooks/: Jupyter notebooks for data exploration, model development, and evaluation.

src/: Python source code for data preprocessing, model training, and prediction.

models/: Saved model checkpoints.

results/: Evaluation results and predictions.

Getting Started

**1. Clone this repository:**

git clone https://github.com/yourusername/future-sales-prediction.git

cd future-sales-prediction

**2.Create a virtual environment (optional but recommended):**

**p**ython -m venv venv

source venv/bin/activate # On Windows, use: venv\Scripts\activate

**3. Install the required dependencies:**

pip install -r requirements.txt

4. Download and place your dataset in the data/ directory.

5. Run the Jupyter notebooks in the notebooks/ directory to explore data,train models, and evaluate predictions.

**Data**

The dataset used in this project should include historical sales data with features such as date, product information, and sales quantities. Make sure to clean and preprocess the data as needed before using it in the project.

**Model**

The machine learning model used for this project is a time series forecasting model. It is trained on historical sales data to predict future sales. Various models and techniques may be explored in the Jupyter notebooks in the notebooks/ directory.

**Evaluation**

Model performance is evaluated using appropriate metrics like Mean Absolute Error (MAE), Mean Squared Error (MSE), and Root Mean Squared Error (RMSE). Evaluation results are stored in the results/ directory.

**Deployment**

For deployment, you can use the trained model to make predictions on future sales data. The src/ directory contains the necessary code for prediction and can be integrated into a production environment as needed.

**Conclusion**

This README provides an overview of the future sales prediction project and its structure. Please refer to the Jupyter notebooks for more detailed information on data preprocessing, model development, and evaluation.

Feel free to customize this README to suit the specifics of your project. Good luck with your future sales prediction project!