

# An Intelligent POS

An Intelligent POS (Point of Sale) system built using **Flutter** for the frontend and integrated with **Python ML models** for sales forecasting and analytics. This project helps businesses manage sales efficiently while providing future demand predictions.

## ■ Features

- User-friendly POS interface (built in Flutter)
- Product & sales management
- Sales reports (daily, weekly, monthly)
- AI-based sales forecasting (Python model)
- Export reports for business analysis

## ■ Project Structure

```
an_intelligent_pos/  
■-- lib/                # Flutter frontend code  
■-- assets/             # Images & resources  
■-- models/             # ML model files (Python)  
■-- backend/           # Python API (Flask/FastAPI)  
■-- pubspec.yaml        # Flutter dependencies  
■-- requirements.txt    # Python dependencies
```

## ■■ Installation & Setup

1. Clone the Repository

```
git clone https://github.com/your-username/an_intelligent_pos.git  
cd an_intelligent_pos
```

2. Run Flutter Frontend

```
flutter pub get  
flutter run
```

3. Run Backend (Python API)

```
cd backend  
pip install -r requirements.txt  
python app.py
```

## ■ Flutter ↔ Backend Connection

Flutter frontend fetches data from the backend API (`'http://127.0.0.1:5000'`). Ensure backend is running before starting the Flutter app.

## ■ Dependencies

Flutter

- http
- provider
- shared\_preferences
- charts\_flutter

Python

- Flask / FastAPI
- pandas
- scikit-learn
- matplotlib

## ■■■ Author

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