



# Data-to-Insight AI Analyst

Upload a CSV or Excel file to automatically generate trends, anomalies, and business recommendations.

## 👤 Agent (Remote Sandbox)

Run the analysis fully inside an E2B sandbox. Prefer a dataset URL/presigned URL so the sandbox downloads the file directly. The dataset never goes to the LLM.

Dataset URL (preferred)

https://.../your-data.csv or .xlsx

Or upload to sandbox and drop file here

Browse files

fake\_we... 22.5KB ✕

> System check (deployment readiness)

Best place to run E2B: from this server-side app (Streamlit process). Provide presigned dataset URLs so the sandbox downloads the file directly over HTTPS.

### Analysis Type

Select analysis type

Deep Pattern Analysis (Segment-level, Cross-dimensional)

☒ Auto-run when input changes

Run Agent in E2B Sandbox



## Phase 1: Data Overview

Total Revenue	Latest WoW Change	Trend
\$4,103,230	+3.01%	



↑ +3.01%

 Incr...

 Period: |  Main Metric: revenue

## Phase 2: Deep Pattern Analysis

### Detected Patterns

- Region 'Region D' changed by 11.92% WoW
- Channel 'Online' changed by 10.93% WoW
- Region 'Region A' changed by 10.64% WoW
- Region 'Region B' changed by -8.89% WoW
- Category 'Home & Kitchen' changed by 4.77% WoW
- Channel 'In-Store' changed by -2.78% WoW
- Category 'Electronics' changed by 2.44% WoW
- Category 'Apparel' changed by 1.94% WoW
- Region 'Region C' changed by -0.22% WoW

### Key Insights

The main metric is 'revenue' with a total value of 4,103,231 across all weeks.

The overall revenue trend is increasing with a latest week-over-week (WoW) increase of 3.01%.

The biggest segment change was region 'Region D' with a WoW change of 11.92% in the latest week.

Region Region A saw a significant spike of 10.64% WoW.



Region Region D saw a significant spike of 11.92% WoW.

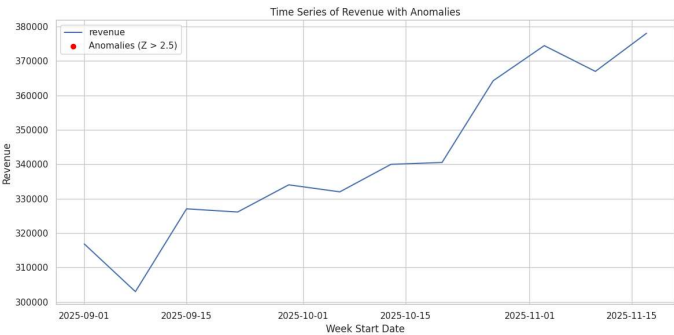


## Recommendations

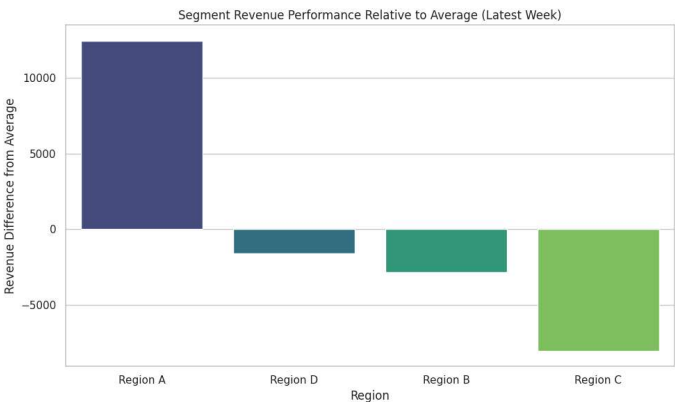
- ➔ Investigate drivers of rapid growth in Region A to replicate strategies in other regions.
- ➔ Investigate drivers of rapid growth in Region D to replicate strategies in other regions.



## Visualizations



Trend Over Time (with Anomalies)



Segment Performance

### AI Analysis of This Chart

#### 1. Overall Trend

The overall trend in the chart indicates an increasing revenue linearly from early September to mid-November 2025, moving from around 310,000 to 380,000.

#### 2. Key Patterns

The chart shows a series of fluctuations with a noticeable drop around mid-September followed by a steady increase. There is no obvious seasonality or cyclical pattern.

### AI Analysis of This Chart

#### 1. Top Performers:

- Region A is leading with a revenue difference from average exceeding 10,000.

#### 2. Underperformers:

- Region C is lagging with a revenue difference of approximately -5,000.

#### 3. Gaps:

- The gap between the best (Region A) and worst (Region C) is over 15,000.



### 3. Anomalies

An anomaly is indicated in mid-November 2025, where the revenue shows an unusual spike beyond the typical trend line, marked by a red dot.

### 4. Business Insight

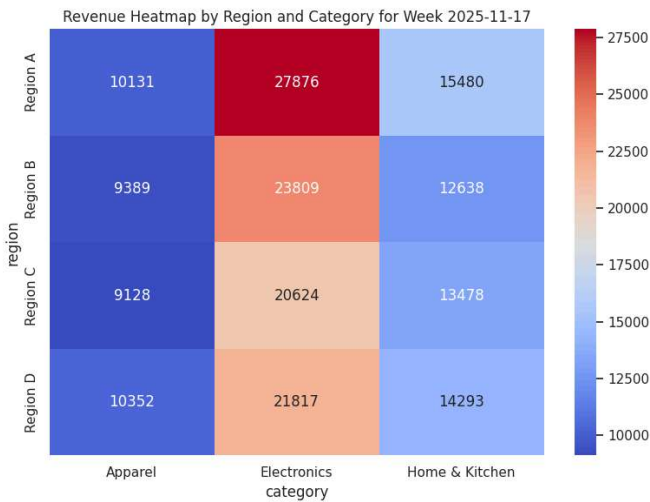
The overall increase in revenue suggests a positive growth trajectory, which could be due to successful business strategies or market demand. The anomaly in November indicates a potential high-impact event, like a promotion or new product launch, which could be strategically leveraged to sustain further growth.

### 4. Recommendation:

- Investigate strategies and practices in Region A for possible implementation in other regions.
- Conduct a detailed analysis of Region C to identify and address the factors contributing to underperformance.



## Deep Pattern Analysis



Performance Heatmap

#### AI Analysis of Heatmap

#### 1. Hot Spots:



- The highest value is 27,876 in Region A for the Electronics category.

## 2. Cold Spots:

- The lowest value is 9,128 in Region C for the Apparel category.

## 3. Patterns:

- **Electronics Column:** Consistently high values across all regions, indicating strong revenue in this category.
- **Apparel Column:** Uniformly lower values compared to Electronics.
- **Home & Kitchen Column:** Moderate values, with Region A having the highest figure in this category.

## 4. Insight:

- **Cross-dimensional Insight:** Electronics generate the highest revenue across most regions, suggesting a strong market presence or demand in this category. Region A leads in Electronics, indicating a potential focus on this category to drive higher revenue. Conversely, Apparel is consistently the lowest, which may suggest exploring strategies to boost sales in that category.

➤ Artifacts (debug)

➤ Raw insights.json

➤ Agent run log



