**Project Report – Electronic Products Revenue Analysis**

**1. Executive Summary**

This project focused on analyzing electronic retail sales data to identify key business trends, optimize sales strategies, and support data-driven decision-making. Data cleaning was conducted using Excel, while MySQL and SQL were utilized for efficient querying and deriving actionable business insights. The final report presents findings on seasonal sales patterns, regional sales performance, customer purchase behavior, and top-selling products.

**2. Objective**

To derive actionable insights from electronic product sales data using SQL analysis and help inform data-driven business strategies.

**3. Tools & Technologies Used**

* Microsoft Excel (Data Cleaning)
* MySQL / SQL (Data Analysis)

**4. Methodology / Approach**

* **Data Cleaning:** Handled missing values, duplicates, and inconsistent data types using Excel.
* **Data Import:** Loaded cleaned dataset into MySQL for structured querying.
* **SQL Analysis:** Utilized aggregate functions, date and time functions, and grouping techniques to extract insights.
* **KPIs Tracked:** Monthly sales, top cities, peak order times, product bundling, and top-selling items.

**5. Key Insights / Findings**

1. **Best Month for Sales:**
   * December had the highest sales, indicating a seasonal spike due to holidays.
   * **Insight:** Strategic focus should be placed on Q4 promotions and inventory preparation.
2. **Best City for Sales:**
   * San Francisco generated the highest sales revenue.
   * **Insight:** Regional ad targeting and stock prioritization are recommended.
3. **Best Time for Advertisements:**
   * Peak purchase hours were between 6:00 PM and 7:00 PM, followed by 11:00 AM - 12:00 PM.
   * **Insight:** Advertisements and promotional efforts should be aligned with these peak hours.
4. **Products Frequently Bought Together:**
   * USB-C Charging Cable, AAA/AA Batteries, and Wired Headphones.
   * **Insight:** Introduce combo deals and cross-sell these items.
5. **Best-Selling Product:**
   * AAA Batteries (4-pack) emerged as the top-selling product.
   * **Insight:** Ensure adequate stock levels and include in spotlight promotions.

**6. Business Strategy Recommendations**

| **Observation** | **Recommendation** |
| --- | --- |
| December has the highest sales | Run promotions and ads aggressively during this period. |
| San Francisco has the highest sales | Allocate more stock and focus marketing campaigns in San Francisco. |
| 6 PM to 7 PM is the busiest time | Schedule ads and email campaigns at this time. |
| USB Charging Cable is frequently bought | Offer bundle deals to maximize revenue. |
| AAA Batteries (4-pack) is the best-seller | Keep high stock availability and promote it further. |

**7. Outcome**

The analysis enabled:

* Identification of key revenue periods.
* Region-specific marketing strategies.
* Targeted inventory decisions.
* Customer-focused promotional planning.

**8. Conclusion**

The Electronic Products Revenue Analysis project enabled the identification of high-performing sales periods, strategic geographical locations, and top-selling products. These insights support tactical decision-making in areas of marketing, inventory management, and customer engagement. Adopting the recommendations derived from this analysis will help drive sales growth and enhance business performance.