**EXCEL PROJECT REPORT**

(Project Semester: January-April 2025)

**Title of the Project:**  
Video Game Sales Analysis Dashboard using Advanced Excel

**Submitted by:**

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Course Code: INT375

**Under the Guidance of:** Dr. Karan Bajaj (UID : 32130)

Discipline of CSE/IT  
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**DECLARATION**

I, Anurag Karmakar, student of Bachelors of Technology (B.Tech) under CSE/IT Discipline at Lovely Professional University, Punjab, hereby declare that all the information furnished in this project report is based on my own intensive work and is genuine.

Date: 03-April-2025

Signature:  
Registration No.: 12318142  
Name of the Student: Anurag Karmakar

**CERTIFICATE**

This is to certify that Sakshi Srivastava bearing Registration No. 12318142 has completed INT375 project titled “Video Game Sales Analysis Dashboard using Advanced Excel” under my guidance and supervision. To the best of my knowledge, the present work is the result of her original development, effort, and study.

Dr. Karan Bajaj  
Assistant Professor  
School of Computer Science & Engineering  
Lovely Professional University  
Phagwara, Punjab

Date: 04-April-2025

**ACKNOWLEDGMENT**

I would like to express my sincere gratitude to Dr. Karan Bajaj Sir, my project guide, for their invaluable support, guidance, and encouragement throughout the development of this project. Their expert insights and constructive feedback have been instrumental in shaping the project's outcome.

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**1. INTRODUCTION**

In today's data-driven world, the gaming industry has become one of the fastest-growing sectors globally. Understanding patterns in game sales can provide key insights into market dynamics, consumer preferences, and future trends.

This project, titled "Video Game Sales Analysis Dashboard using Advanced Excel," leverages Microsoft Excel's advanced functionalities to explore and visualize a dataset of 2000 video game titles. Techniques such as Power Query, Pivot Tables, Calculated Fields, Slicers, Timelines, KPI Cards, and Conditional Formatting were used to build an interactive, real-time analytical dashboard.

Through this project, we:

* Analyzed regional sales trends
* Identified top-performing games, publishers, and platforms
* Tracked genre-based sales dynamics
* Predicted future market directions

This project showcases the power of Excel as not just a spreadsheet tool but a full-fledged Business Intelligence platform capable of turning raw data into actionable insights.

**2. SOURCE OF DATASET**

The dataset used for this project was obtained from **VGChartz** — a reputed database for video game sales statistics.

* Title: VGChartz Video Game Sales 2024
* Size: 2000 entries
* Fields included: Game Title, Platform, Genre, Publisher, Developer, Regional Sales (NA, EU, JP, Other), Global Sales, Release Date.

The data was curated to fit academic needs and prepared for advanced Excel-based analysis.

**3. DATASET PREPROCESSING**

Several preprocessing steps were carried out to clean and organize the dataset:

* **Removed Empty Columns**: Columns like Unnamed:12, Unnamed:13, Unnamed:14 were deleted.
* **Standardized Column Names**: Titles were formatted without spaces for easier referencing.
* **Filled Missing Values**: Null regional sales figures were replaced with 0.
* **Formatted Date**: Release dates were properly set to Excel’s Date format.
* **Calculated New Fields**: Extracted 'Year' from 'Release Date' using formulas.
* **Data Type Verification**: All sales figures formatted as numbers.

Post-preprocessing, the dataset was ready for pivoting, dashboarding, and advanced visual analysis.

**4. ANALYSIS ON DATASET**

**4.1 General Description**

The dataset provides a comprehensive overview of video game sales distributed across various regions and categorized by genre, console, publisher, and year of release.

**4.2 Specific Requirements and Objectives**

* To determine the highest selling genres and platforms.
* To evaluate sales trends over years.
* To identify regional preferences for gaming.
* To visualize top publishers and developers.
* To build a dynamic, user-interactive dashboard.

**4.3 Analysis Results**

* **Genre Analysis**: Action and Shooter games dominated global sales.
* **Platform Share**: PlayStation 4 and Nintendo Switch emerged as leading consoles.
* **Regional Trends**: North America led in game sales, followed by Europe.
* **Top Titles**: 'Grand Theft Auto V' topped the charts globally.

**4.4 Visualization**

* Bar Charts: Top Genres and Top Consoles
* Pie Chart: Platform-wise Market Share
* Line Chart: Global Sales Trend Over Years
* Stacked Column Chart: Regional Sales Distribution
* KPI Cards: Highest Selling Game, Console, Total Sales Metrics

Interactive Slicers and a Timeline enhanced user experience and dynamic report generation.

**5. CONCLUSION**

The "Video Game Sales Analysis Dashboard" successfully demonstrates the extensive capabilities of Microsoft Excel for advanced data analytics and visualization.

Using features like Power Query, Slicers, KPIs, and Dynamic PivotTables, this project transformed static sales data into actionable business intelligence. It offers valuable market insights that could benefit stakeholders in the gaming industry, ranging from developers to investors.

Moreover, this project highlighted that even without coding, tools like Excel can achieve professional-grade Business Intelligence reporting when used smartly.

**6. FUTURE SCOPE**

* **Real-Time Data Integration** using APIs to track ongoing sales.
* **Power BI Upgrade** for enhanced visualization and cross-platform reporting.
* **Predictive Analytics** using Machine Learning models.
* **Incorporation of User Review and Rating Sentiment** for qualitative insights.
* **Expansion to Mobile and Indie Games Market**.

These enhancements could transform the dashboard into a complete analytics platform for the gaming industry.

**7. REFERENCES**

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