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| **Analyzing Video Game Sales and Performance** | | |
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| **Overview** | |  |
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| **Business Objective** | |  |
| Analyze video game sales and performance data. | | |
| The objective is to identify key factors that contribute to successful game launches, understand consumer preferences, and make informed decisions related to game development, marketing strategies, and platform selection. | | |
| The goal is to maximize game sales, increase market share, and optimize return on investment (ROI) for gaming companies. | | |
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|  | **Audience** |  |
|  | game developers, publishers, and marketers in the video game industry | |
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| **The Dataset** | |  |
| The dataset comprises sales data from over 16,500 games that have sold more than 100,000 copies. | | |
| Data pulled from Kaggle https://www.kaggle.com/datasets/gregorut/videogamesales?resource=download | | |
| Data originated from vgchartz.com | |  |
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|  | **Columns** | **Definition** |
|  | Rank | Ranking of overall sales |
|  | Name | The games name |
|  | Platform | Platform of the games release (i.e. PC,PS4, etc.) |
|  | Year | Year of the game's release |
|  | Genre | Genre of the game |
|  | Publisher | Publisher of the game |
|  | NA\_Sales | Sales in North America (in millions) |
|  | EU\_Sales | Sales in Europe (in millions) |
|  | JP\_Sales | Sales in Japan (in millions) |
|  | Other\_Sales | Sales in the rest of the world (in millions) |
|  | Global\_Sales | Total worldwide sales. |
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| **Strategy** | |  |
| Data collection | |  |
| Data cleaning and prep | |  |
| Exploratory data analysis | |  |
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| **Hypothesis** | |  |
| Hypothesis 1: The platform has a significant impact on global game sales. | | |
| Null Hypothesis: There is no significant difference in global game sales across different platforms. | | |
| Alternative Hypothesis: Certain platforms have a higher impact on global game sales compared to others. | | |
| Test: two tailed T-test assuming unequal variances | | |
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| Hypothesis 2: Game genre influences global sales performance. | | |
| Null Hypothesis: There is no significant difference in global game sales across different genres. | | |
| Alternative Hypothesis: Certain genres have a higher impact on global game sales compared to others. | | |
| Test: two tailed T-test assuming unequal variances | | |
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| Hypothesis 3: Regional sales vary based on game platform. | | |
| Null Hypothesis: There is no significant difference in regional game sales across different platforms. | | |
| Alternative Hypothesis: Certain platforms perform better in specific regions, leading to variations in regional sales. | | |
| Test: ANOVA single factor | |  |
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| Hypothesis 4: The publisher affects global sales performance. | | |
| Null Hypothesis: There is no significant difference in global game sales across different publishers. | | |
| Alternative Hypothesis: Certain publishers have a higher impact on global game sales compared to others. | | |
| Test: two tailed T-test assuming unequal variances | | |