: COMPARISON OF "REVIEWS(+)" BETWEEN FREE AND PAID GAMES

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INTRODUCTION

- The mobile gaming industry offers both free and paid games, each with different user engagement patterns.
- Understanding differences in user reviews between free and paid games can guide market strategies and development focus.
- Objective: To determine whether there is a statistically significant difference in the average number of reviews between free and paid games using hypothesis testing.

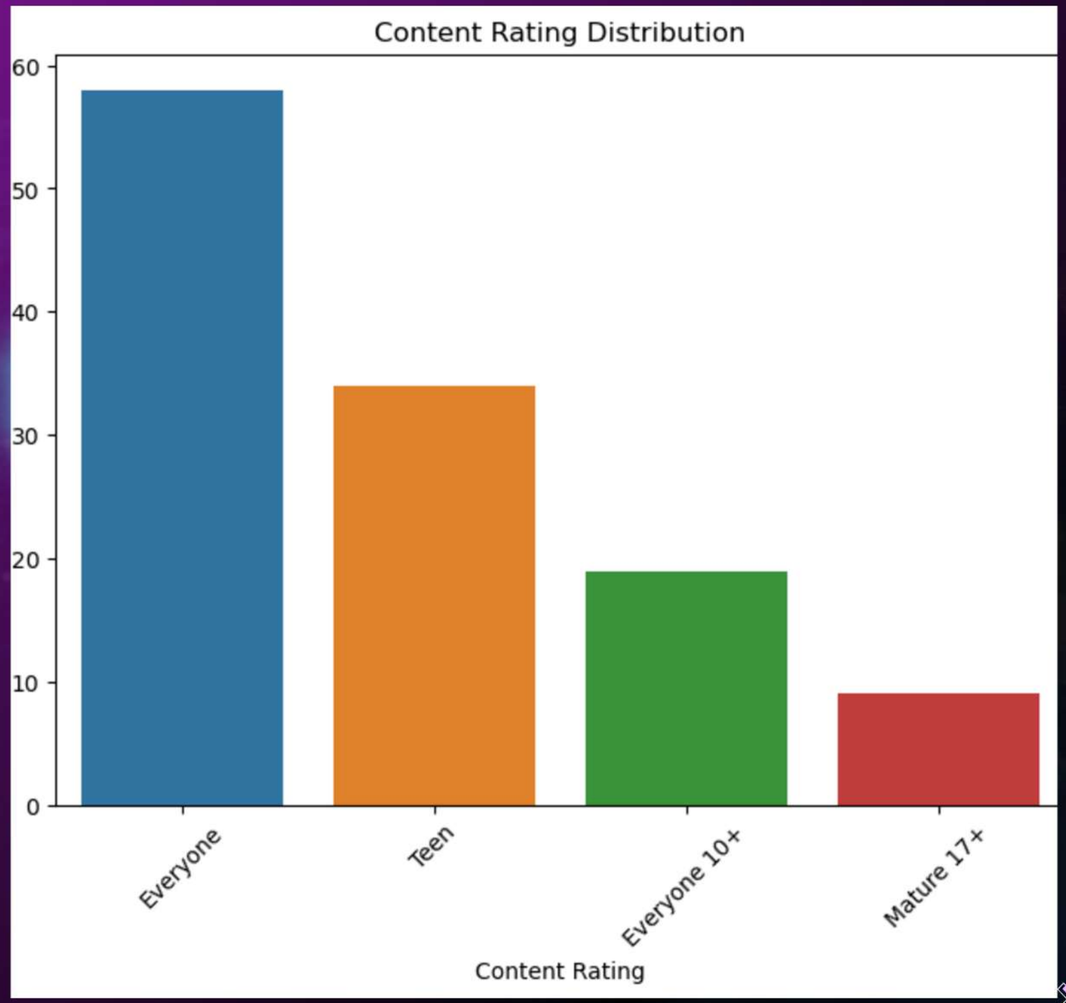
HYPOTHESIS TESTING OVERVIEW

- lData Used: Reviews (+) column from the game dataset, categorized by Type (Free or Paid).
- Statistical Test: Two-sample t-test.
- Assumptions:

1. Independent samples.
2. Approximately normal distribution of data.
3. Equal or unequal variances (as applicable).

DATA OVERVIEW

The dataset contains data about various games, including:
App Name: Name of the game.
Reviews(+): Number of positive reviews for each game.
Type: Whether the game is free or paid and so on



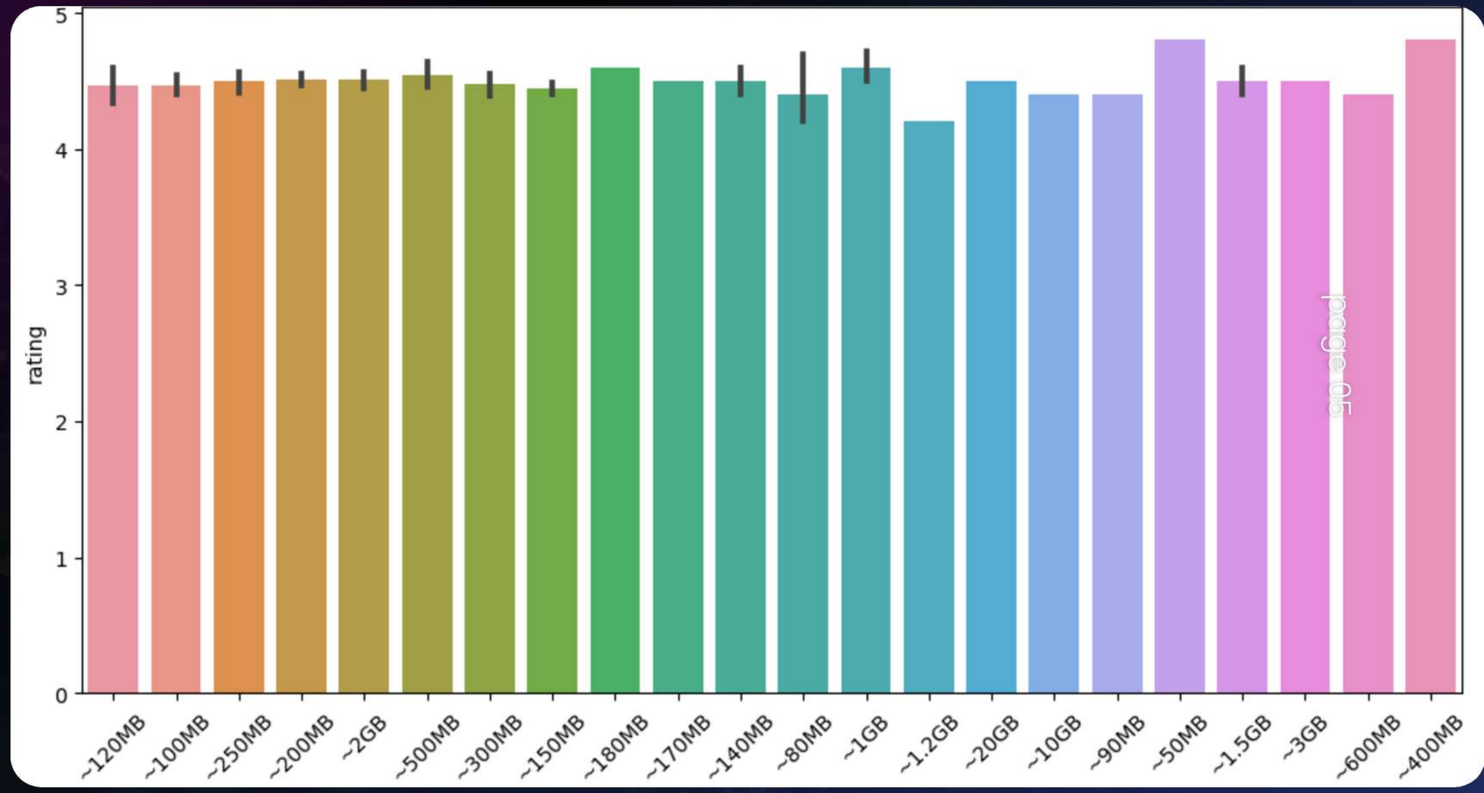
CONTENT RATING BARPLOT

Visual Representation: To visually compare the number of games in each content rating category

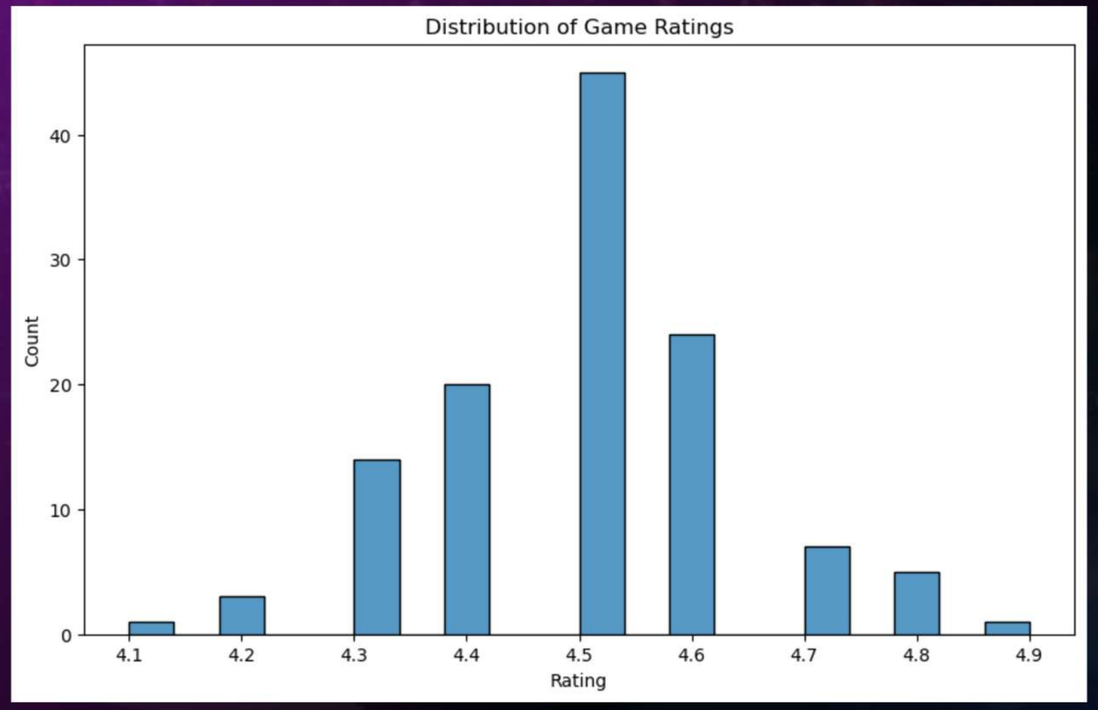
Identifies which content rating is most common among games, indicating developers' target audience preferences.

CATEGORIES IN THE SIZE

- Tall Bars: Indicate app sizes associated with higher user ratings.
- Short Bars: Indicate app sizes with lower average user ratings.
- Patterns: Look for trends:
- Do smaller apps receive better ratings due to faster performance or compatibility?
- Do larger apps get lower ratings due to potential performance issues?



HISTOGRAM OF GAME RATINGS



A higher frequency of ratings around 4.0–5.0 suggests overall user satisfaction with most games.

PRICING ON GAME INSTALLS

- T-Statistic: 8.51 (indicates the strength of difference between groups).
- P-Value: 1.82×10-131.82 \times 10^{-13}1.82×10-13 (extremely low, much less than 0.05).
- Conclusion: The p-value suggests overwhelming evidence to reject the null hypothesis.
    - Free games have significantly higher installs compared to paid games.

PRICING ON GAME REVIEWS

- T-Statistic: 4.98 (indicates a notable difference between groups).
- P-Value: 5.94×10-65.94 \times 10^{-6}5.94×10-6 (far below 0.05).
- Conclusion: The null hypothesis is rejected, indicating a significant difference in the number of reviews.
- Free games receive significantly more reviews than paid games.

REVIEWS: FREE VS. PAID GAMES

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T-Statistic: 3.76 (indicating a strong difference between groups).
P-Value: 0.00027 (well below the 0.05 significance threshold).
Conclusion: The null hypothesis is rejected.
Free games receive significantly more reviews compared to paid games.

THANK YOU