

IRON HACK

Web Scraping Project

By: Christopher Angeles



Micromania Market Strategy

Christopher Angeles

+ Micromania



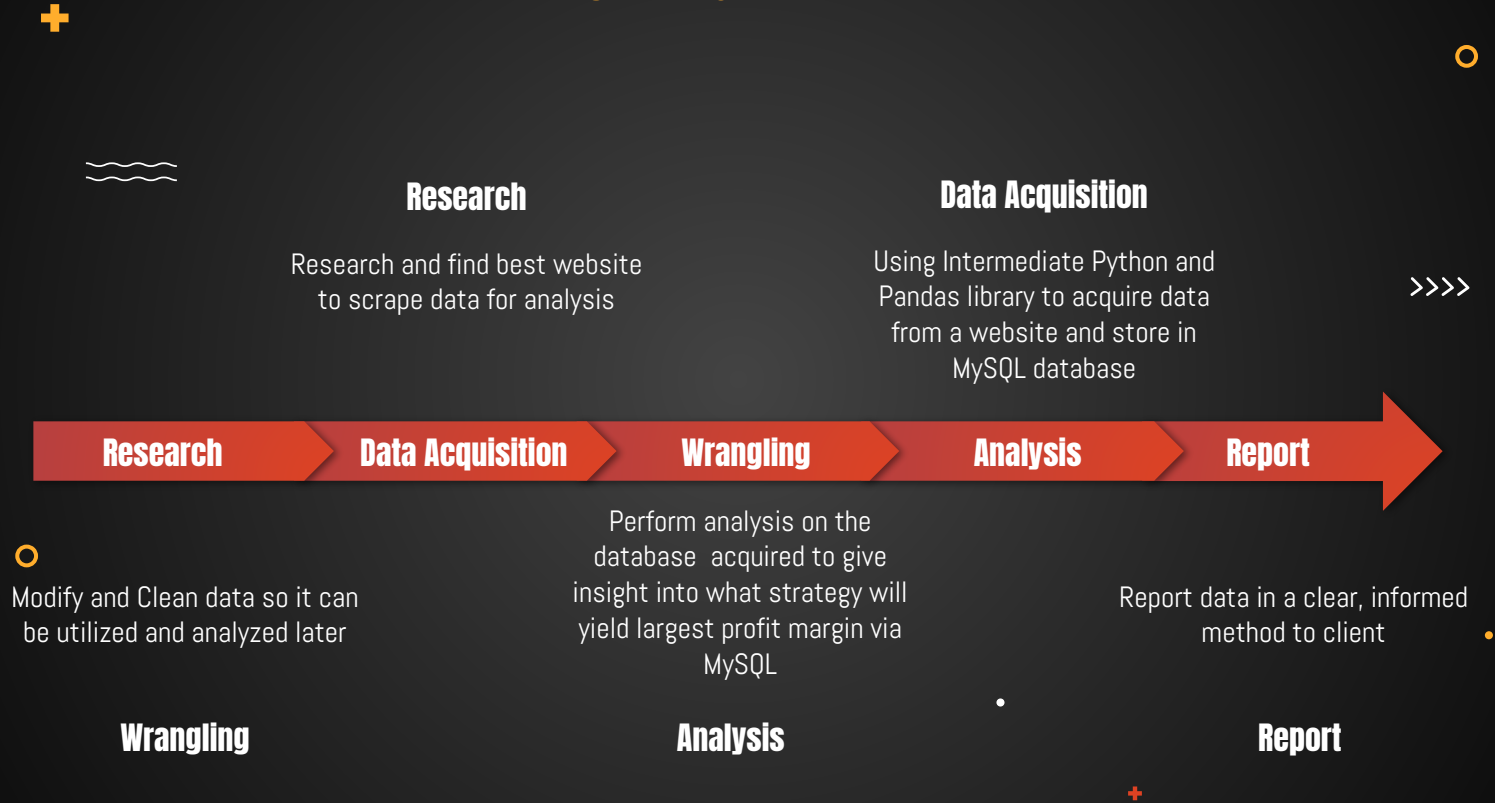
>>>>

Micromania is looking to acquire large amount of inventory

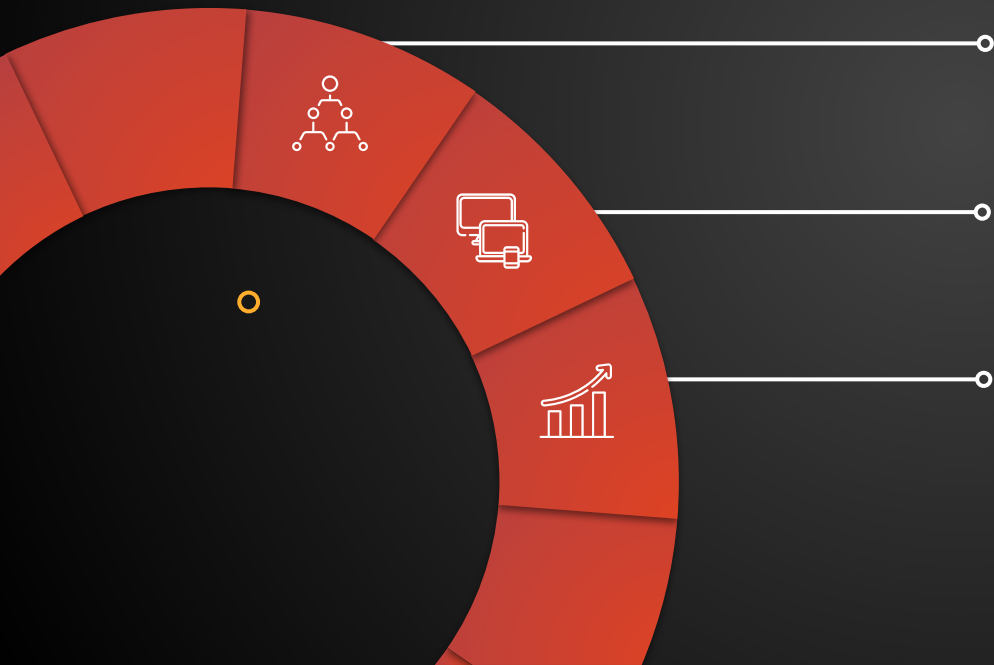
- Acquisition of preowned games
- Selling New always greater profit than preowned

Goal: Optimize market strategy for what types of preowned games makes most profit

A STRATEGY TIMELINE



DATA ACQUISITION IS KEY...



GENRE

Find the most popular genres in video game sales

CONSOLE

Which console related to the most popular games being sold

NEW vs. PREOWNED PRICE

Largest profits between selling pre owned vs selling new in relation to genre and console

Scraping Data Links

>>>>



game.co.uk/en/games/

Price Range

Genre

- 100 (1)
- 3XL (2)
- Accessories (407)
- Action (2)
- Action Adventure (11)
- Action/Adventure (5,832)
- Activity (763)
- Animation (8)
- Apple (48)
- Art Work (1)
- Beat 'em up (343)
- Board Games (10)
- Building/Constr... (9)
- Calendars; Annu... (7)
- Children/Family (42)
- Classical (3)
- Collectables (57)
- Comedy (1)

| Game Title | Platform | Preorder Status | Price | Release Date |
|---|----------|-----------------|---------|-------------------------|
| Resident Evil 3 GAME Exclusive Keyring and Badge Edition | PS4 | Preorder | £69.99 | Release date 03/04/2020 |
| Resident Evil 3 GAME Exclusive Keyring and Badge Edition | XBOX ONE | Preorder | £69.99 | Release date 03/04/2020 |
| The Elder Scrolls Online: Greymoor Collector's Edition Upgrade... | PC | Preorder | £119.99 | Release date 18/05/2020 |
| The Elder Scrolls Online: Greymoor Collector's Edition Upgrade... | PS4 | Preorder | £119.99 | Release date 02/06/2020 |
| The Elder Scrolls Online: Greymoor Collector's Edition Upgrade... | XBOX ONE | Preorder | £119.99 | Release date 02/06/2020 |
| Final Fantasy VII Remake Deluxe Edition - UK Retail GAME Exclu... | PS4 | Preorder | £79.99 | Release date 10/04/2020 |
| Resident Evil 3 | PS4 | Preorder | £49.99 | Release date 03/04/2020 |
| Pokemon Mystery Dungeon: Rescue Team DX | SWITCH | Preorder | £49.99 | Release date 06/03/2020 |

>>>>

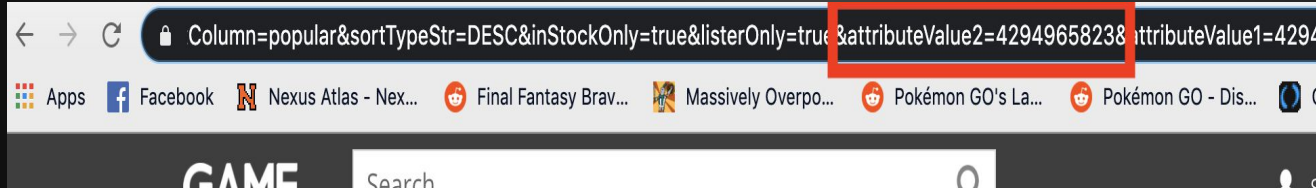
Scraping Data Links

>>>>



Created a database with just the links for each website directory

>>>>











Scraping All Games per Genre



>>>>

Created second database with name, console, and prices



| | | | |
|---|---|---|---|
|  Marvel's Spider-Man - The Only on PlayStation Collection - GAM... PS4 New £25.99 Pre-owned £24.99 Other offers from £18.99 |  Death Stranding PS4 New £49.99 Pre-owned £39.99 Other offers from £41.99 |  Star Wars Jedi: Fallen Order PS4 New £49.99 Other offers from £42.85 |  Star Wars Jedi: Fallen Order XBOX ONE New £49.99 Other offers from £45.00 |
|  |  |  |  |

>>>>

Database in MySQL

>>>>



| Game | | | | | | | | | |
|---|-------|---|-----------|----------------|----------------|-----------|---------------|------------------|--|
| Select Database | | | | | | | | | |
| Structure Content Relations Triggers Table Info Query | | | | | | | | | |
| Table History Users Console | | | | | | | | | |
| TABLES | index | Name | New_Price | Preowned_Price | Download_Price | Other_... | Console | Genre | |
| Game | 0 | Marvel's Spider-Man - The Only on PlayStation Collecti... | 29.99 | 24.99 | 24.99 | 39.88 | PlayStation 4 | Action/Adventure | |
| Genre | 1 | Death Stranding | 49.99 | 39.99 | 39.99 | 41.9 | PlayStation 4 | Action/Adventure | |
| | 2 | Star Wars Jedi: Fallen Order | 49.99 | 42.99 | 42.99 | 42.85 | PlayStation 4 | Action/Adventure | |
| | 3 | Star Wars Jedi: Fallen Order | 49.99 | 0 | 0 | 42.85 | Xbox One | Action/Adventure | |
| | 4 | Pokemon Sword or Shield Expansion Pass | 0 | 29.99 | 29.99 | 0 | Switch | Action/Adventure | |
| | 5 | Spyro Reignited Trilogy | 36.36 | 0 | 0 | 42.88 | Switch | Action/Adventure | |
| | 6 | Crash Bandicoot N.Sane Trilogy | 44.99 | 0 | 0 | 45.88 | Switch | Action/Adventure | |
| | 7 | Marvel's Spider-Man Game Of The Year Edition | 39.99 | 0 | 0 | 46.99 | PlayStation 4 | Action/Adventure | |
| | 8 | Spyro Reignited Trilogy | 22.99 | 22.99 | 22.99 | 21.95 | Xbox One | Action/Adventure | |
| | 9 | LEGO Jurassic World | 32.99 | 0 | 0 | 24.98 | Switch | Action/Adventure | |
| | 10 | Dragon Ball Z: Kakarot | 44.99 | 0 | 0 | 0 | PlayStation 4 | Action/Adventure | |
| | 11 | Dragon Ball Z: Kakarot | 44.99 | 0 | 0 | 49.95 | Xbox One | Action/Adventure | |
| | 12 | Dragon Ball Z: Kakarot | 0 | 49.99 | 49.99 | 0 | PC | Action/Adventure | |
| | 13 | Luigi's Mansion 3 | 44.99 | 42.99 | 42.99 | 54.95 | Switch | Action/Adventure | |
| | 14 | Xbox One X with Star Wars Jedi: Fallen Order Bundle | 364.95 | 0 | 0 | 0 | Xbox One | Action/Adventure | |
| | 15 | Dragon Ball Z: Kakarot Ultimate Edition | 0 | 74.99 | 74.99 | 0 | PC | Action/Adventure | |
| | 16 | Dragon Ball Z: Kakarot Deluxe Edition | 0 | 64.99 | 64.99 | 0 | PC | Action/Adventure | |
| | 17 | Crash Bandicoot N. Sane Trilogy | 22.99 | 22.99 | 22.99 | 28.99 | PlayStation 4 | Action/Adventure | |
| | 18 | Star Wars Jedi: Fallen Order Deluxe Edition | 0 | 42.99 | 42.99 | 72.2 | PlayStation 4 | Action/Adventure | |
| | 19 | Crash Bandicoot N.Sane Trilogy | 22.99 | 0 | 0 | 39.88 | Xbox One | Action/Adventure | |
| | 20 | Star Wars Jedi: Fallen Order Deluxe Edition | 74.86 | 0 | 0 | 0 | Xbox One | Action/Adventure | |
| | 21 | Disney Classic Games: Aladdin and The Lion King | 29.99 | 0 | 0 | 29 | Switch | Action/Adventure | |
| | 22 | Disney Classic Games: Aladdin and The Lion King | 29.99 | 0 | 0 | 23.65 | PlayStation 4 | Action/Adventure | |
| | 23 | Disney Classic Games: Aladdin and The Lion King | 29.99 | 0 | 0 | 31.89 | Xbox One | Action/Adventure | |
| | 24 | Red Dead Redemption 2 | 59.99 | 0 | 0 | 0 | PC | Action/Adventure | |
| | 25 | The Elder Scrolls Online Tamriel Unlimited 3000 Crown | 0 | 14.99 | 14.99 | 0 | Xbox One | Action/Adventure | |

>>>>



ARE PROFITS FROM PREOWNED GAME SALES DECLINING?

IN-GAME DIGITAL SALES

Majority of profits in download sales due to the price ceiling being nearly nonexistent

DOWNLOADS

Despite the fear of ownership, more buyers prefer digital media >>>>

PREOWNED SALE

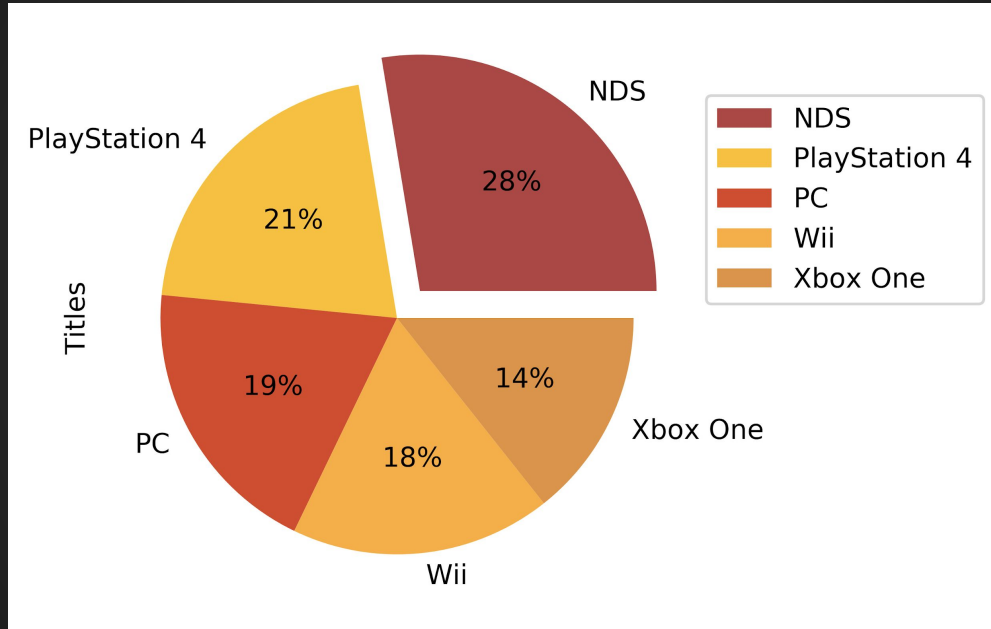
The physical based media market is split between new and preowned sales

NEW SALE

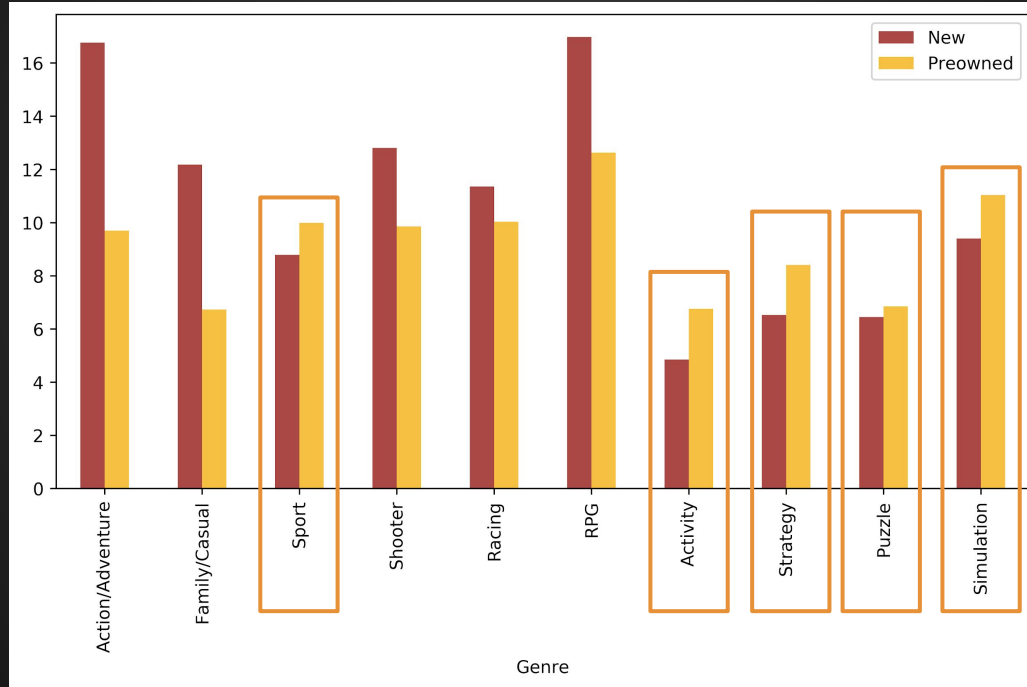
A large percent of the market is dominated by new, physical based media

* Percentages are not actually true

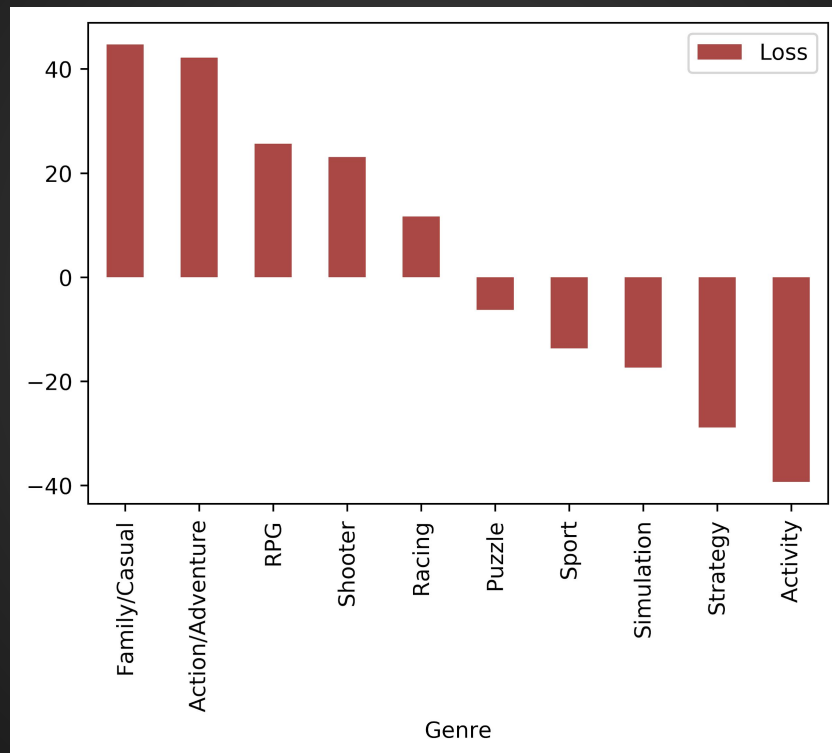
WHAT CONSOLES HAVE THE MOST GAMES?



USING THE DATA COLLECTED, WE CAN SEE **SALE DIFFERENCE** BETWEEN NEW AND PREOWNED GAMES PER GENRE



... PERCENTAGE **LOSS** PER GENRE COMPARED TO NEW SALE



WHERE DO WE GO FROM HERE...



Collect more data from other sources and compile data to increase sample size

To increase profit from acquisition, purchase preowned games from genres that preowned sell more than new

Don't sell preowned games in largest profit loss genre

The background is dark gray with various abstract elements: a large orange semi-circle, a smaller brown semi-circle, a grid of white dots, a red plus sign, a red circle, and several white wavy lines. The word "THANKS!" is centered in the orange semi-circle.

THANKS!

Time for the code!

CREDITS: This presentation template was created by **Slidesgo**, including icons by **Flaticon**, and infographics & images by **Freepik**.

Please keep this slide for attribution.