

Web scraping drug discount coupon websites

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Prescription drugs and drug discount coupons

- Prescription drug costs are going up from \$25 billion in 2000 to \$67 billion in 2025
- 9% of Americans do not have insurance and pay out of pocket for prescription drugs
- Drug discount coupons are one way to curb prescription cost
- Drug coupons are offered by manufacturers as a marketing tool
- Drug coupon use has been controversial in cases where consumers opt to buy a brand name drug with a coupon in lieu of using generics
- Consumer advocacy groups, however, recommend drug discount websites because the price of a drug with a coupon can be less than what you may pay out of pocket

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Dataset and Objectives

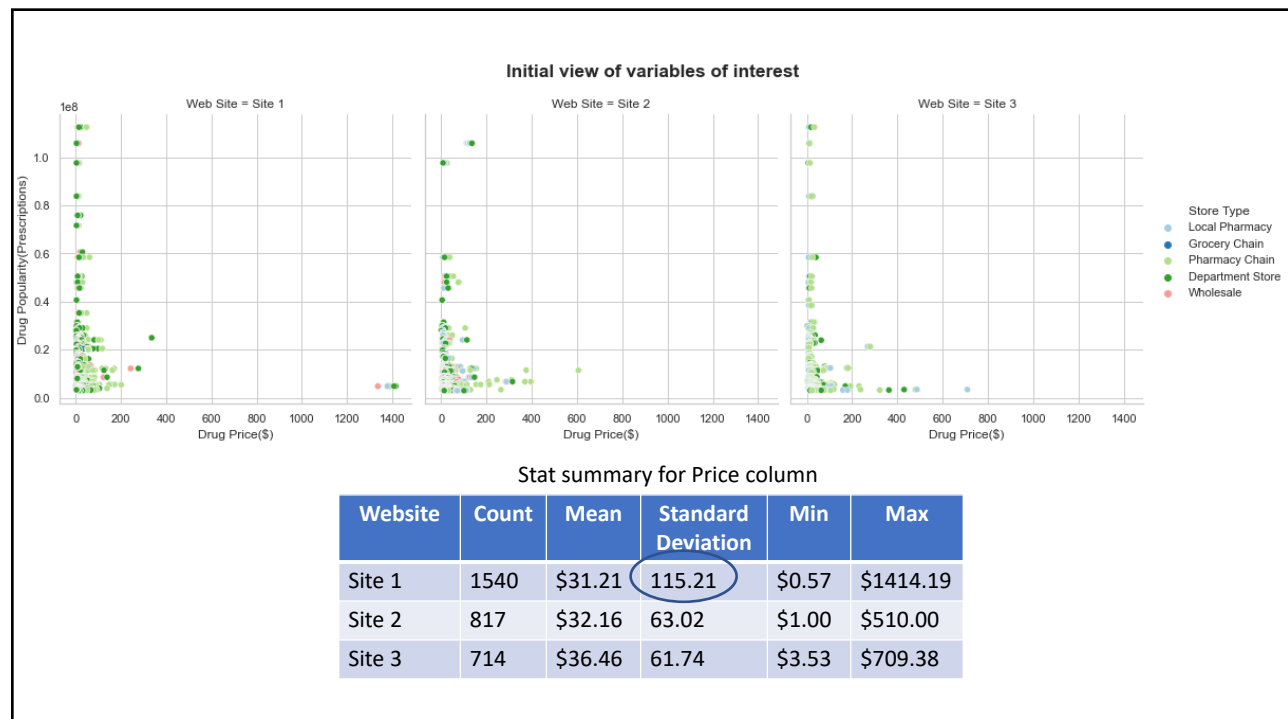
Data Description

1. Top 200 drugs by number of prescriptions
 - a) Drug name
 - b) Number of prescriptions filled
 - c) Rank by number of prescriptions filled (used for Drug Popularity index)
2. Three drug discount websites data on price of top 200 drugs in the Pittsburgh area
 - a) Drug name – Site 1 – 154 drugs, Site 2 – 102 drugs, Site 3 – 110 drugs
 - b) Drug price
 - c) Store Name – Site 1 – 10 stores, Site 2 – 8 stores, Site 3 – 6 stores
3. Store Types
 - a) Store Name
 - b) Store Type – Local pharmacy, Pharmacy Chain, Grocery Chain, Department Store, Wholesale

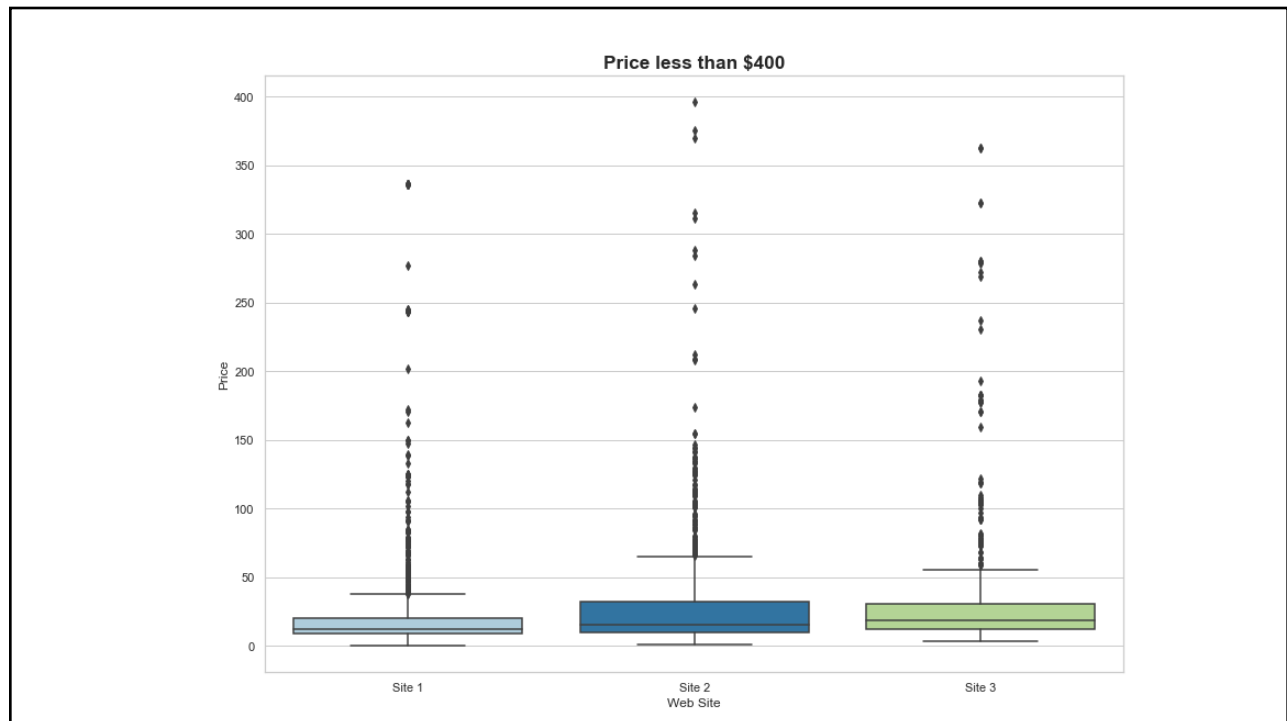
Questions to be answered

- Overall, which types of stores offer the best deals on drug discount websites in the Pittsburgh area
- Do more popular drugs behave differently from the less popular drugs?
- Do more expensive drugs behave differently from cheap drugs?
- What strategies are needed by stores so they can attract more customers using drug discount coupons

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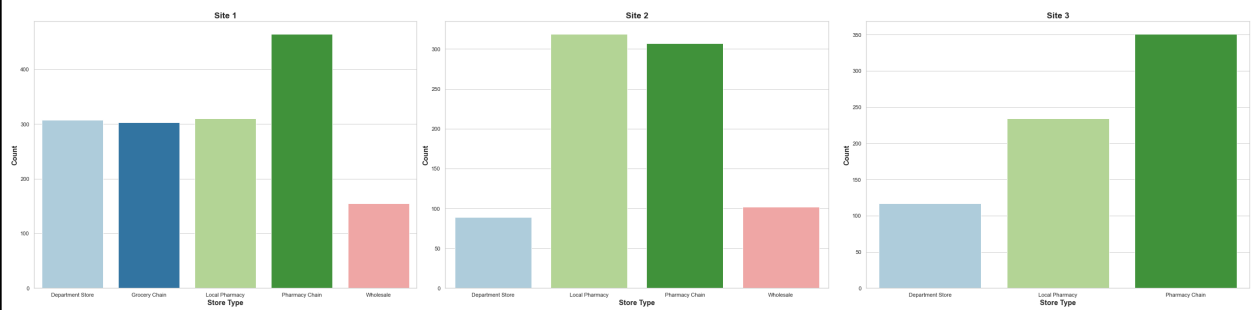


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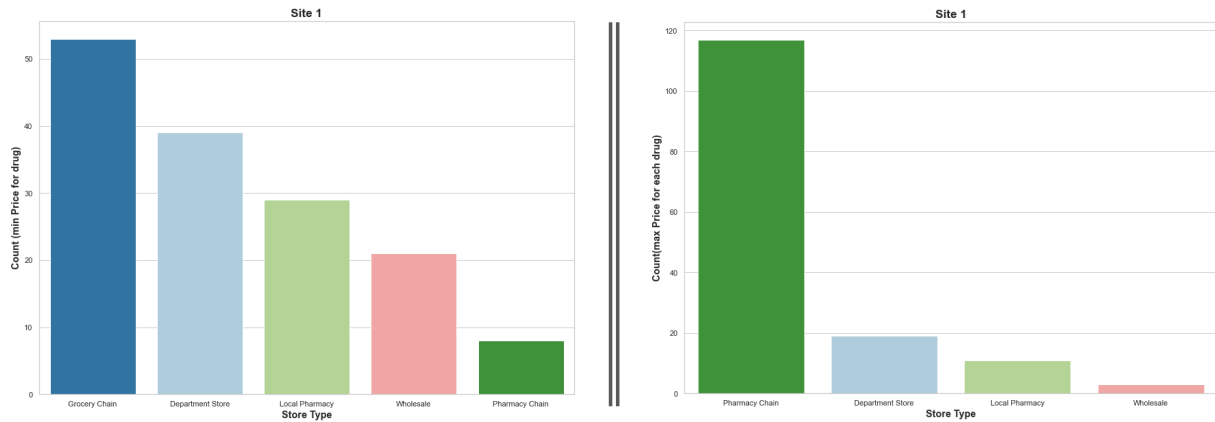
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Store composition by website



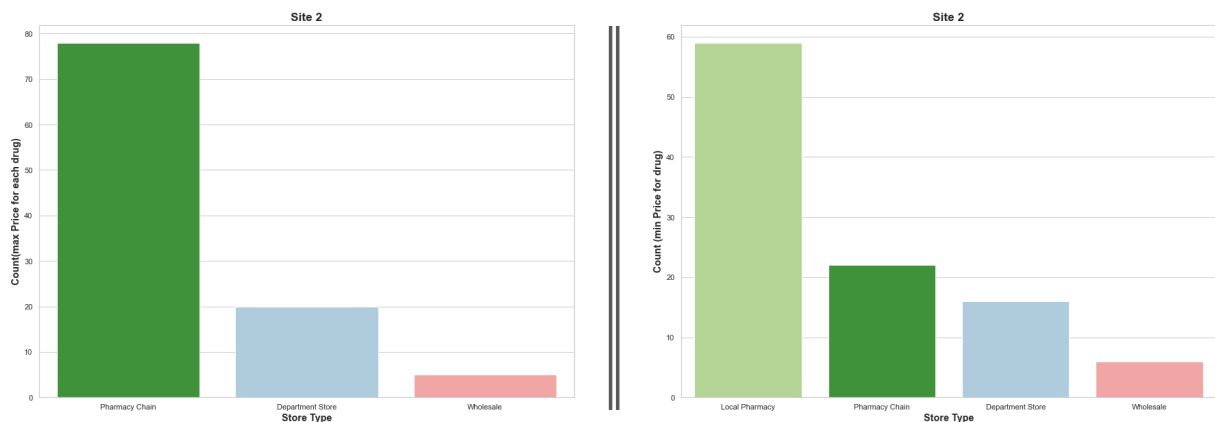
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Site 1– who has the lowest prices and who is charging the most?



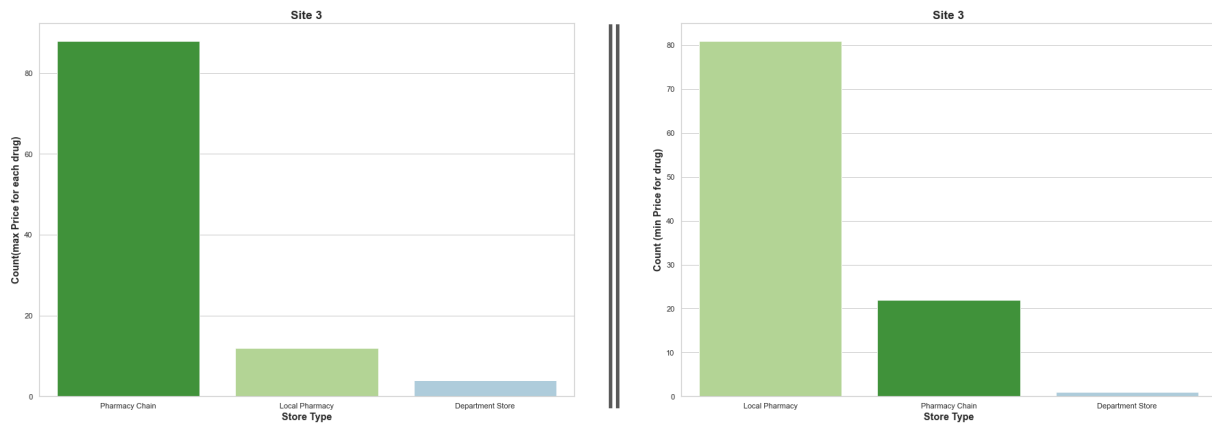
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Site 2 – who has the lowest prices and who is charging the most?



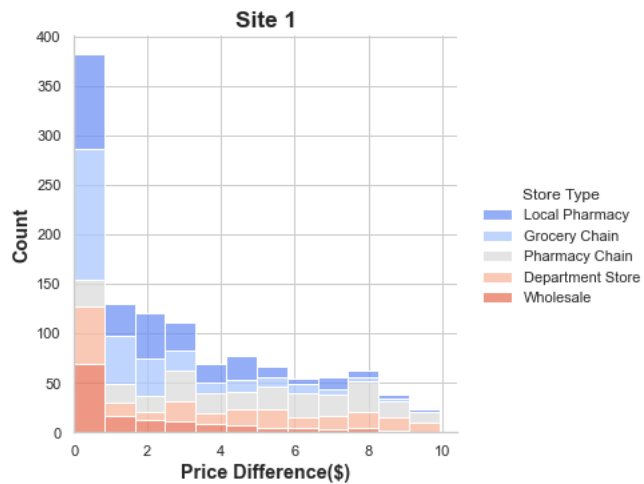
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Site 3 - who has the lowest prices and who is charging the most?



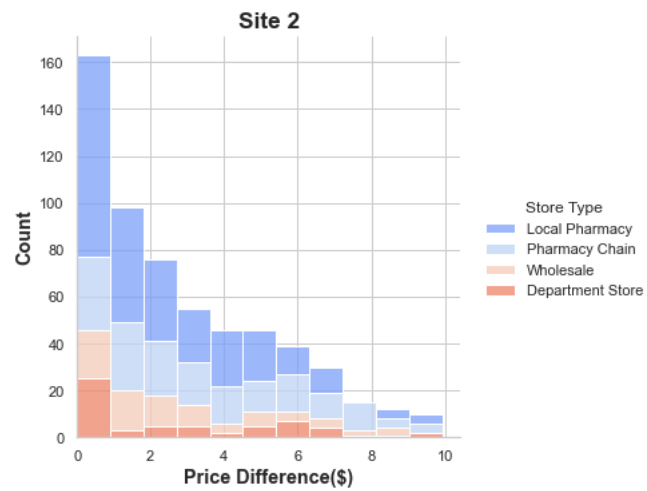
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Which store type is most competitive in Site 1?



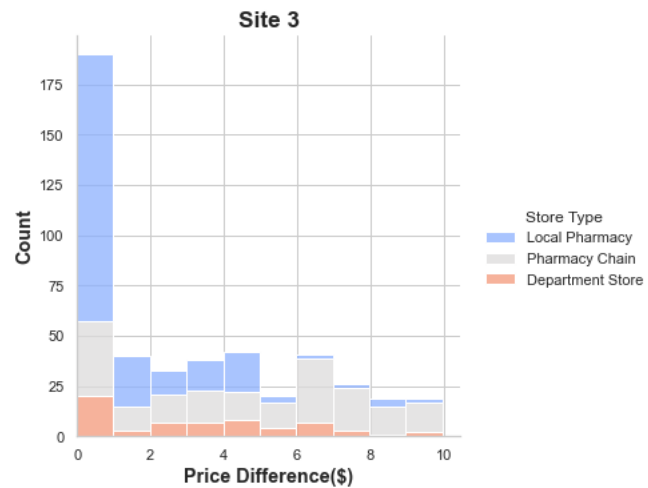
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Which store type is most competitive in Site 2



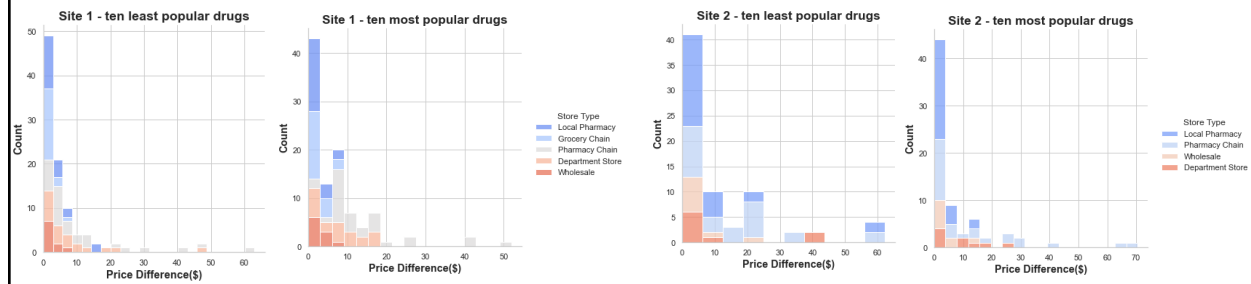
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Which store type is most competitive in Site 3



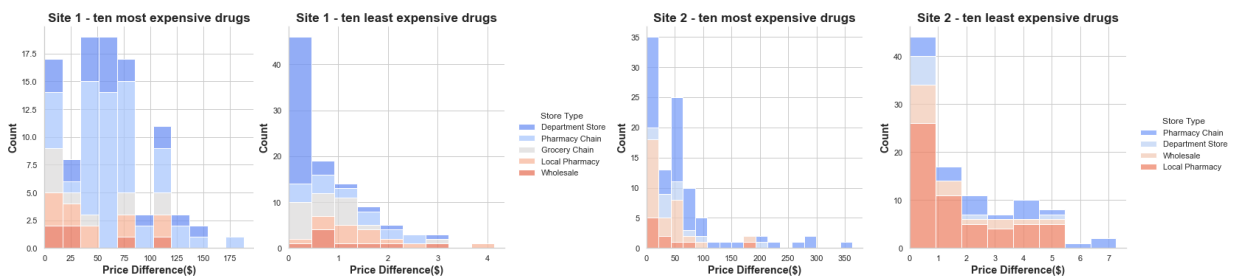
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Competitiveness by drug popularity



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Competitiveness by drug price



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Recommendations for local pharmacies