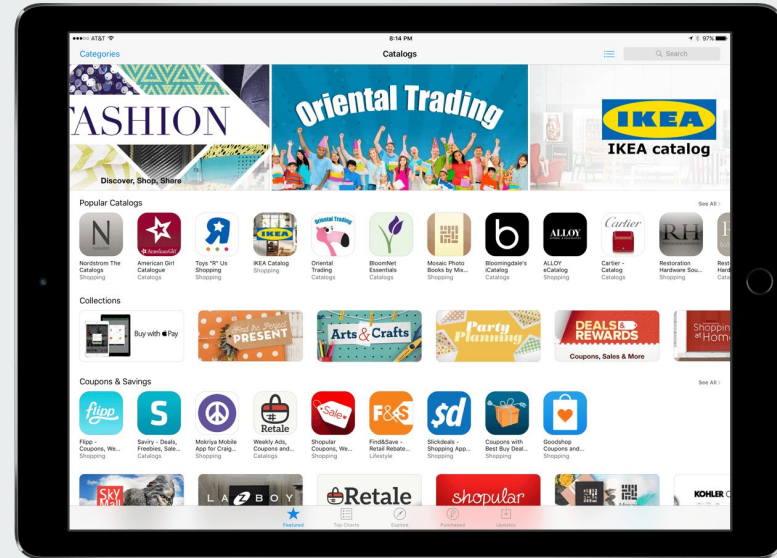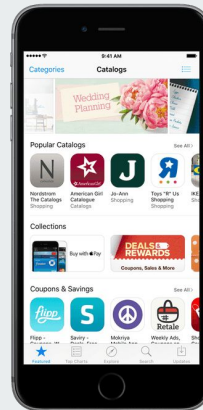# Apple Store Monetization Experiment Design

Find strategy on payment method to increase the revenue for entire store by 5% for Q3.

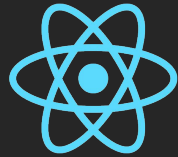# Outline

Exploratory Analysis

15 Variables
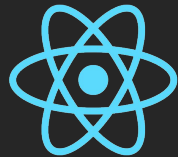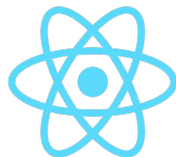
566,699 Records

Data Processing

- **Duplicated Value Removal**
- **Missing Value Imputation and Removal**

- spend_usd_next_14_days
  - No 0 value. So NAs can be filled by 0.
- user_added_credit_card, user_added_dcb, user_added_gift_card, user_added_paypal
  - They are NAs only when users don't have any fops.
- Other features
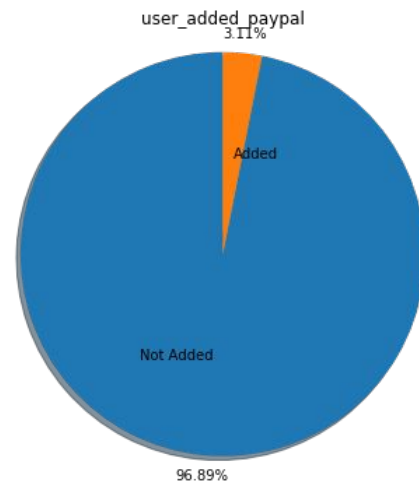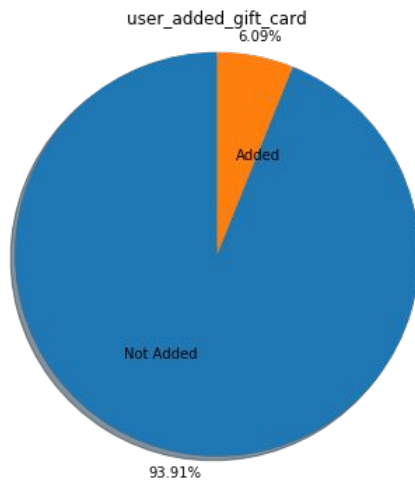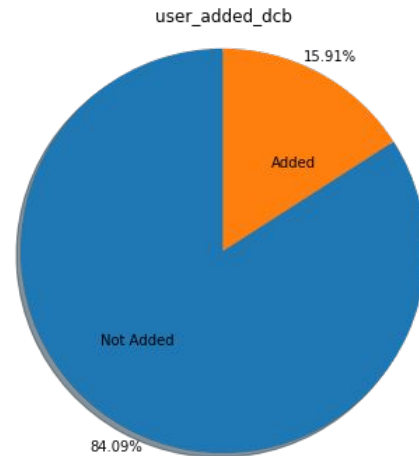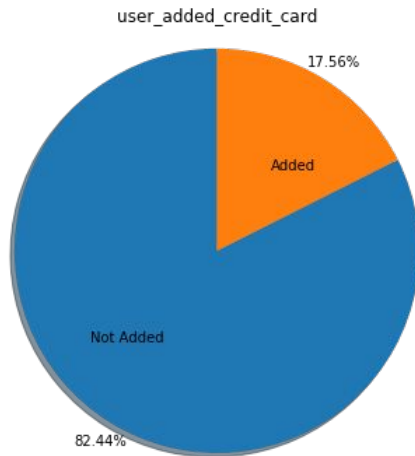 - The corresponding samples can be removed.

484,357 Records

Data Visualization -Form of Payment

Top 2 payment methods

- **Credit Card**
- **Direct Carrier Billing**

Data Visualization -Conversion Rate

Good:

- **Overall conversion rate is high**

Bad:

- **Saw_Cart -> Clicked(66%)**

Actual Purchase Funnel for Each Stage
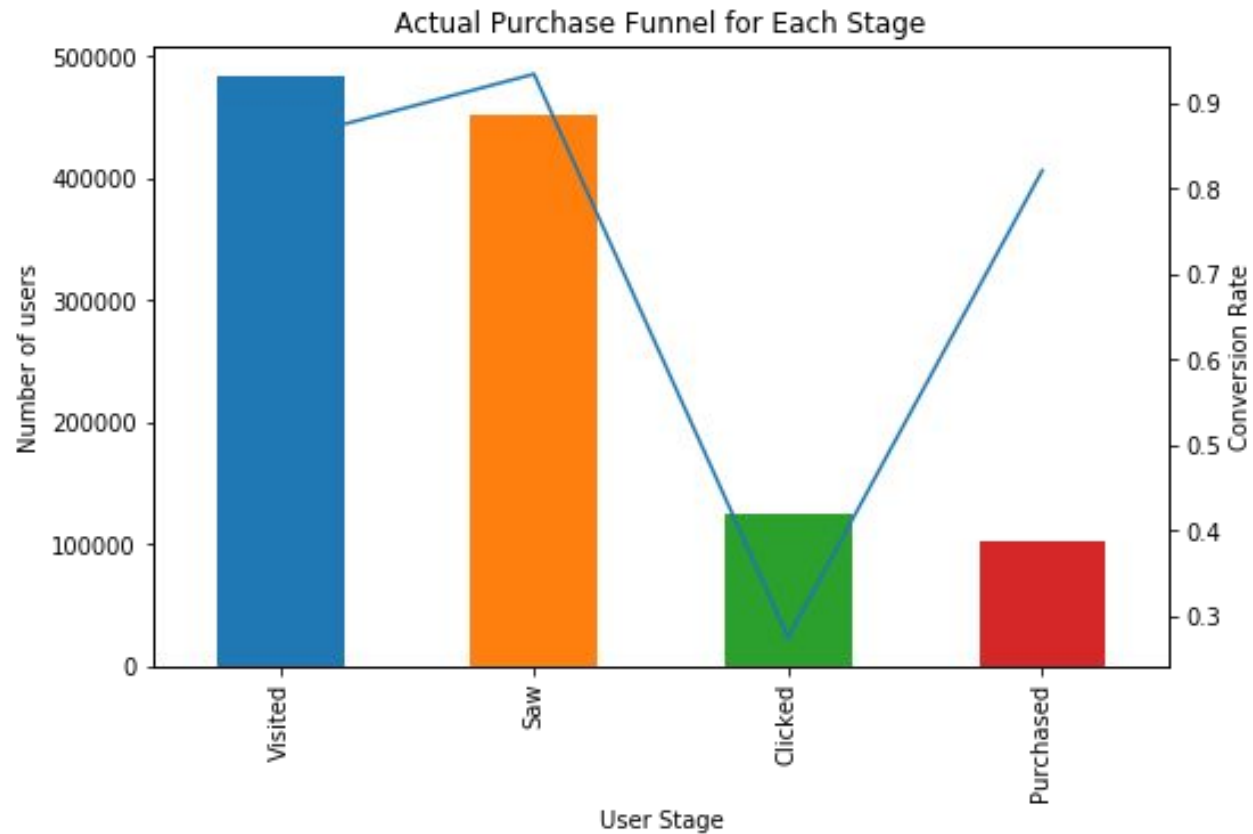
$$ConversionRate = \frac{Number\ Of\ People\ With\ Current\ Stage\ = 1}{Number\ Of\ People\ With\ Previous\ Stage\ = 1} | \ obj = 1$$
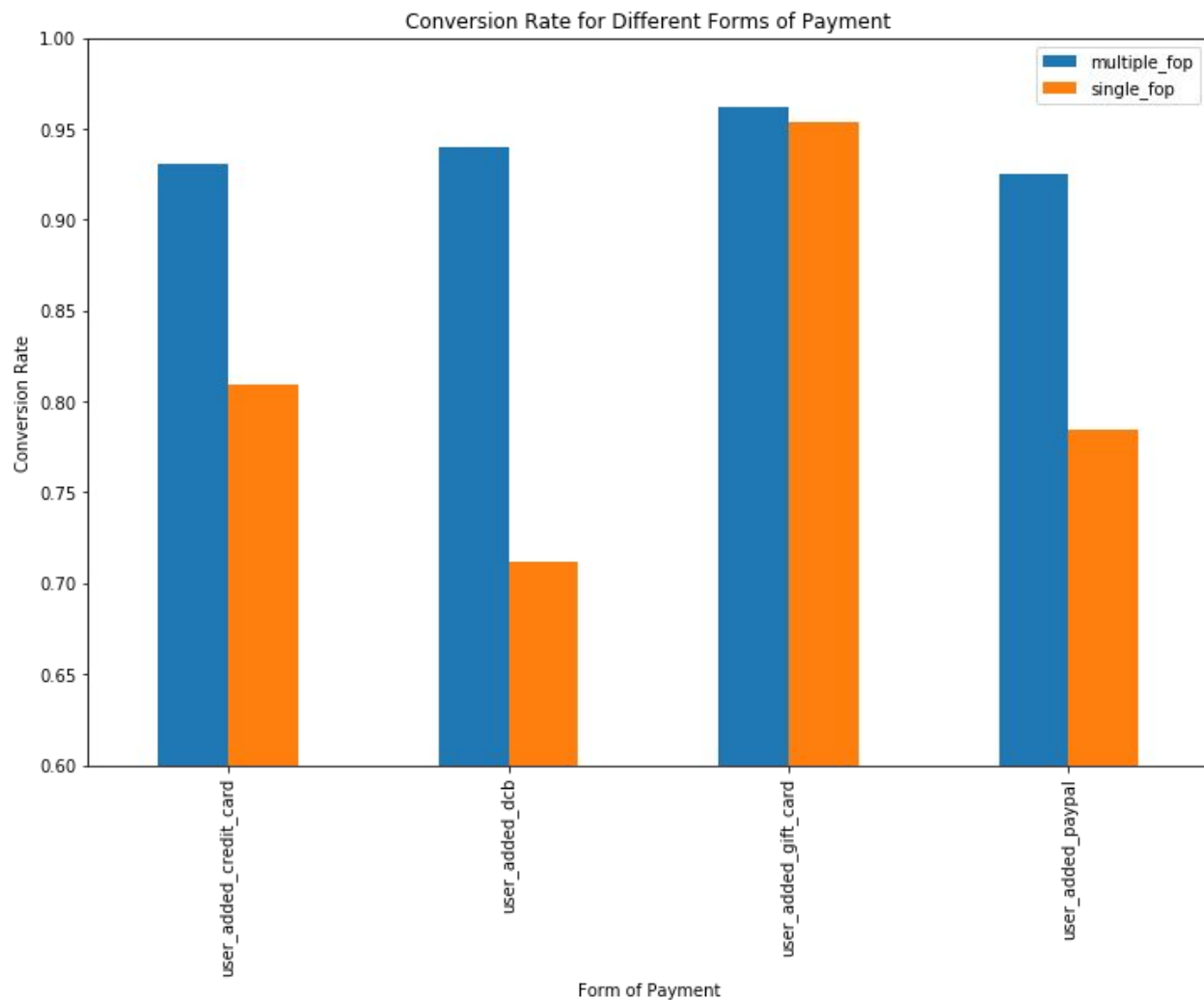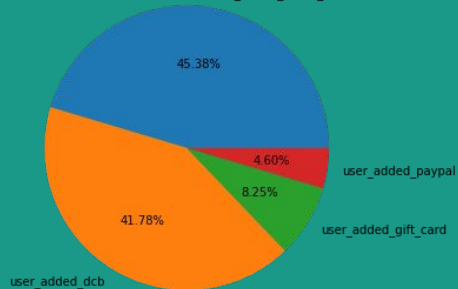
Data Visualization -Conversion Rate

Single form of payment

- Large variance
- Direct Carrier Billing(42%)

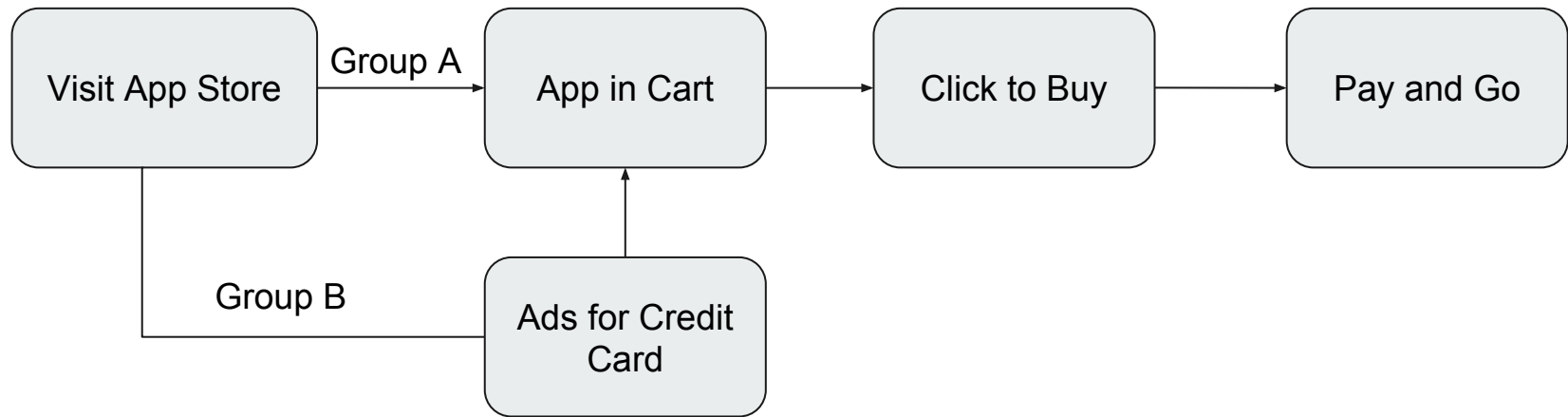
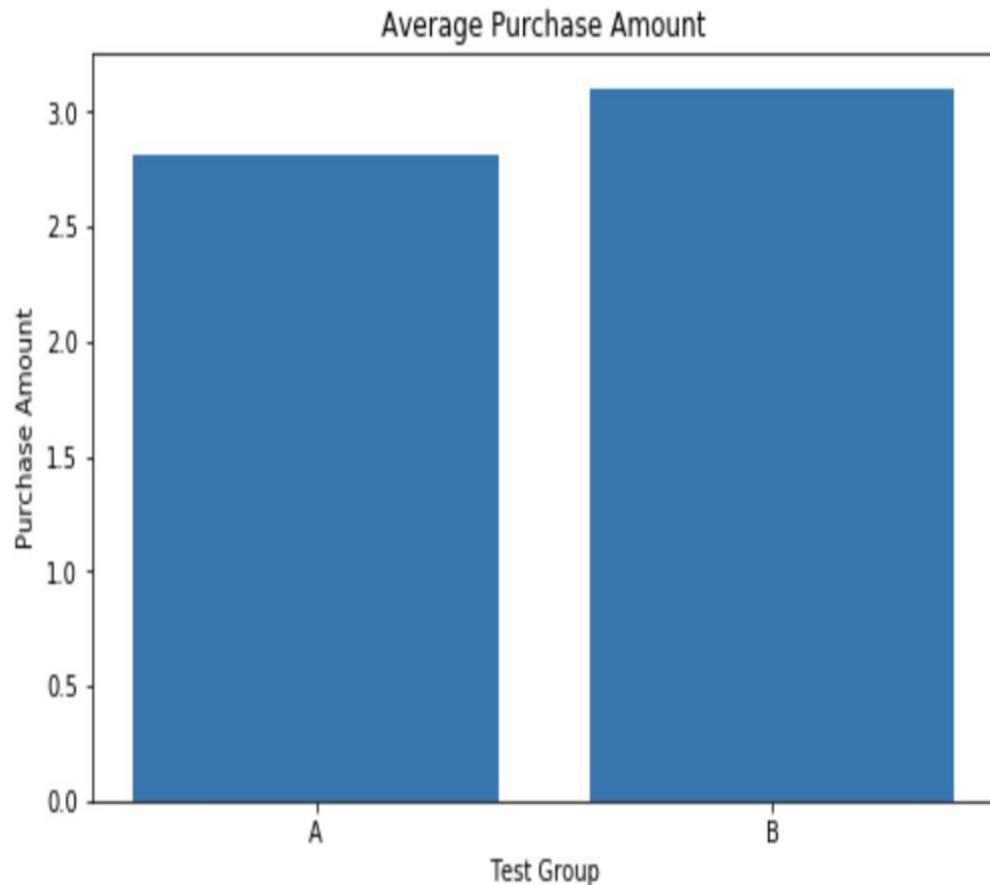Percentage of Payment Method for Single Form

Conversion Rate for Different Forms of Payment

Experiment Design

A/B Test

Test Result

P-value

    0.003< 0.01

Conclusion

    Revenue from Group B is expected to increase by 10.7%.

	experiment_id	mean	count	group
0	12624548	3.101232	24695	B
1	12624549	2.807225	24471	A

Average Purchase Amount

Recommendation

Recommendation

We should persuade people who only use Direct Carrier Billing to use Credit Card by making ads.

Next Step

What next?

➔ Since the overall conversion rate is high for users with multiple forms of payment, we can also test if asking people to add new form of payment can lead to higher revenue.

➔ We should also find methods to increase the conversion rate between 'App in Cart' and 'Click to Buy'. For example, we send reminder to users if there is any app remaining in the cart.

Questions?