Advertisement Conversion Rate Analysis

Introduction:

The data given was an advertisement campaign observations made to understand the customer’s behaviour for their attention towards the given organisation advertisement in any given website

The data includes several columns related to CPC, bids, clicks, impressions, and spend. Here 's a summary of the key attributes:

* **Average CPC (USD)**: The average cost-per-click for each entry.
* **Est. Clicks**: The estimated number of clicks.
* **Est. Impressions**: The estimated number of impressions.
* **Est. Spend (USD)**: The estimated spend.

Understanding the Data Set:

**Data Features Explanation:**

1. **Placement**: The name or identifier of the specific advertising placement or campaign.
2. **Origin**: The origin location or city code from where the ad or campaign is targeting.
3. **Destination**: The destination location or city code that the ad or campaign is targeting.
4. **Advertiser Origin**: The origin location or city code associated with the advertiser.
5. **Advertiser Destination**: The destination location or city code associated with the advertiser.
6. **Average CPC (USD)**: The average cost-per-click in USD that the advertiser pays each time someone clicks on their ad.
7. **Average Rank**: The average position or rank of the ad in search results or ad placements. A lower number typically indicates a higher position.
8. **First Rank Bid (USD)**: The bid amount required to achieve the first rank or position in the ad placement.
9. **Third Rank Bid (USD)**: The bid amount required to achieve the third rank or position in the ad placement.
10. **6th Rank Bid (USD)**: The bid amount required to achieve the sixth rank or position in the ad placement.
11. **9th Rank Bid (USD)**: The bid amount required to achieve the ninth rank or position in the ad placement.
12. **Est. Clicks**: The estimated number of clicks that the ad placement is expected to receive.
13. **Est. Impressions**: The estimated number of impressions (times the ad is shown) that the ad placement is expected to receive.
14. **Est. Spend (USD)**: The estimated total spends in USD for the ad placement based on the CPC and estimated clicks.

Model Used for Testing:

A/B Testing Algorithm was used to compare the initial conversion rate and the calculated conversion rate to 1.5 from 1

1. Split The Data:

Control data set = initial conversion data

Test data set = calculated cpc to 1.5

1. Calculate the conversion rate for both control and test data set:

Formula used for calculating Ad campaign conversion rate = **(Est. Spend/Est. Clicks) \*100**

1. Analyse the data:

Compare the conversion rates of the Control and Test groups to see if the increase in CPC led to a higher or lower conversion rate.

Data Visualisation:

