



ADTECH PROJECT





Overview

Built a full-fledged AdTech analytics dashboard to analyze 30,000+ ad impressions, 5,000+ clicks, and 200+ campaign records across multiple channels. The solution automated data cleaning, mapped ad spend to revenue, and created performance KPIs such as CTR, CPC, ROAS, and Conversions. Quickly compare platforms (Google, Meta, LinkedIn), evaluate creatives, and optimize budgets by identifying 23% overspending areas and opportunities to improve CTR by 19%.





Dataset Overview

- Dataset Size
- Total Data size 1,20,000 rows
 - 30,524 Impression Records
 - 5,487 Click Events
 - 216 Campaign Rows
- 4 Platforms (Google, Facebook, Instagram, LinkedIn)





EDA

KPI Performance Analysis (CTR, CVR, CPC, eCPM, ROI)

16K

Total_Impressions

3668

Total_Click

798

Total_conversion

23.61%

CTR

21.76%

CVR

315.45K

Total_revenue

20.31K

eCPM(Revenue per thousand impression)

24.24

Cost_per_click

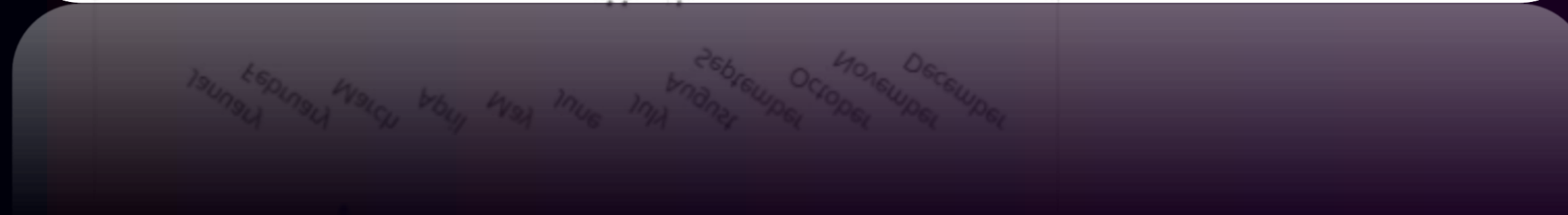
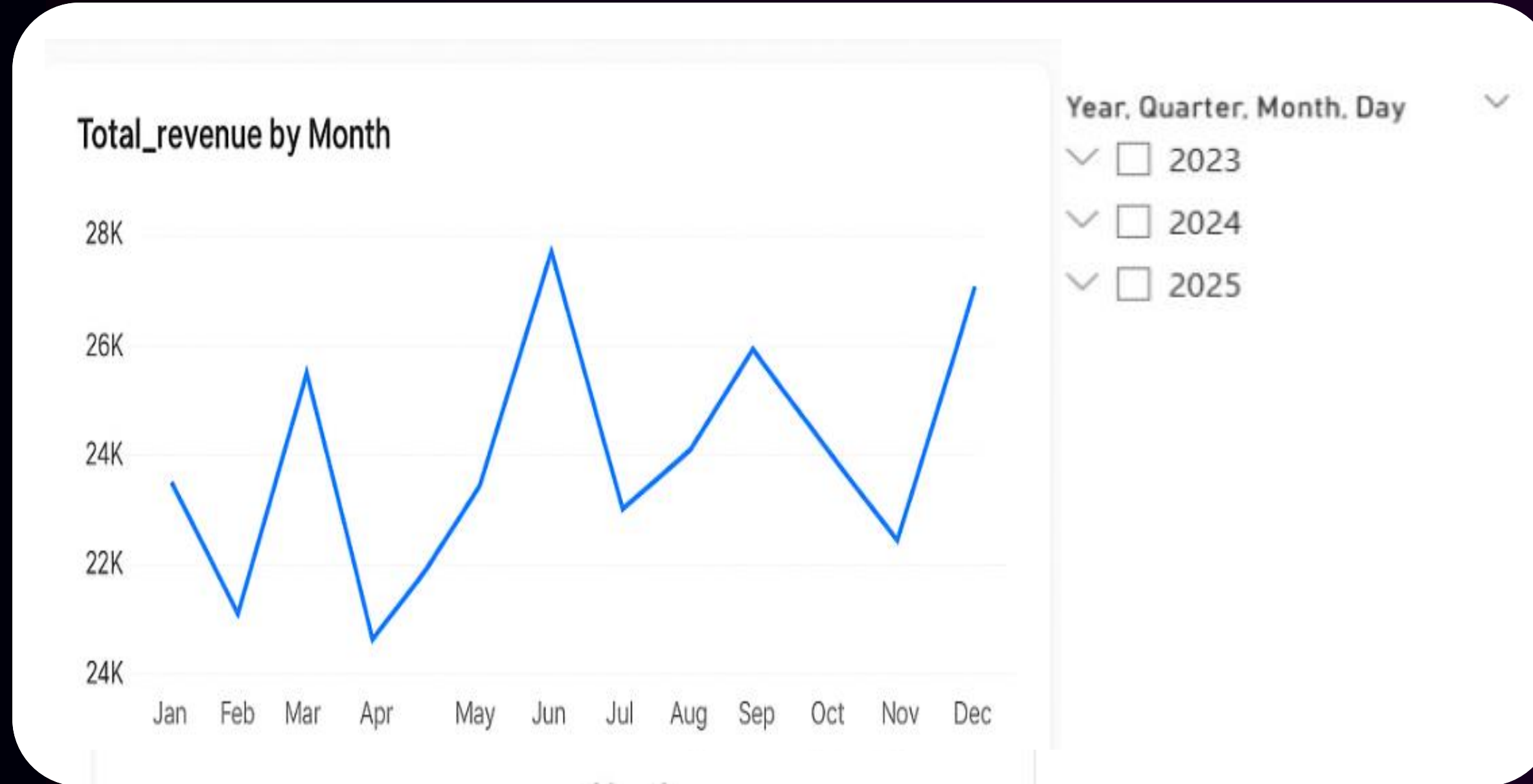
2.55

ROI(Return on investement)





How is total revenue distributed across months?





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Clean_CampaignName	Desktop	Mobile	Other	Total
AAPINSTALL	1.80	1.80	0.00	1.80
AAPINSTALL	0.00		0.00	0.00
AEPINSTALL	0.00	0.23	0.23	0.23
AETARGETING	0.00		1.23	1.23
AGPINSTALL		0.00		0.00
AIDEO_BOOST	0.00		0.00	0.00
AKPINSTALL	0.00	0.00		0.00
ALPINSTALL	0.00		0.00	0.00
AMPINSTALL	0.00	0.00		0.00
AOLIDAY PROMO	0.00			0.98
Total	1,00,560.80	1,59,858.14	55,032.65	3,15,451.59

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AOLIDAY PROMO	0.00			0.98





Revenue KPI's



133.49K

Revenue YTD

181.96K

Revenue_Prev_Year

3.49K

Revenue_last_30_Days

95.82K

HighViewRevenue

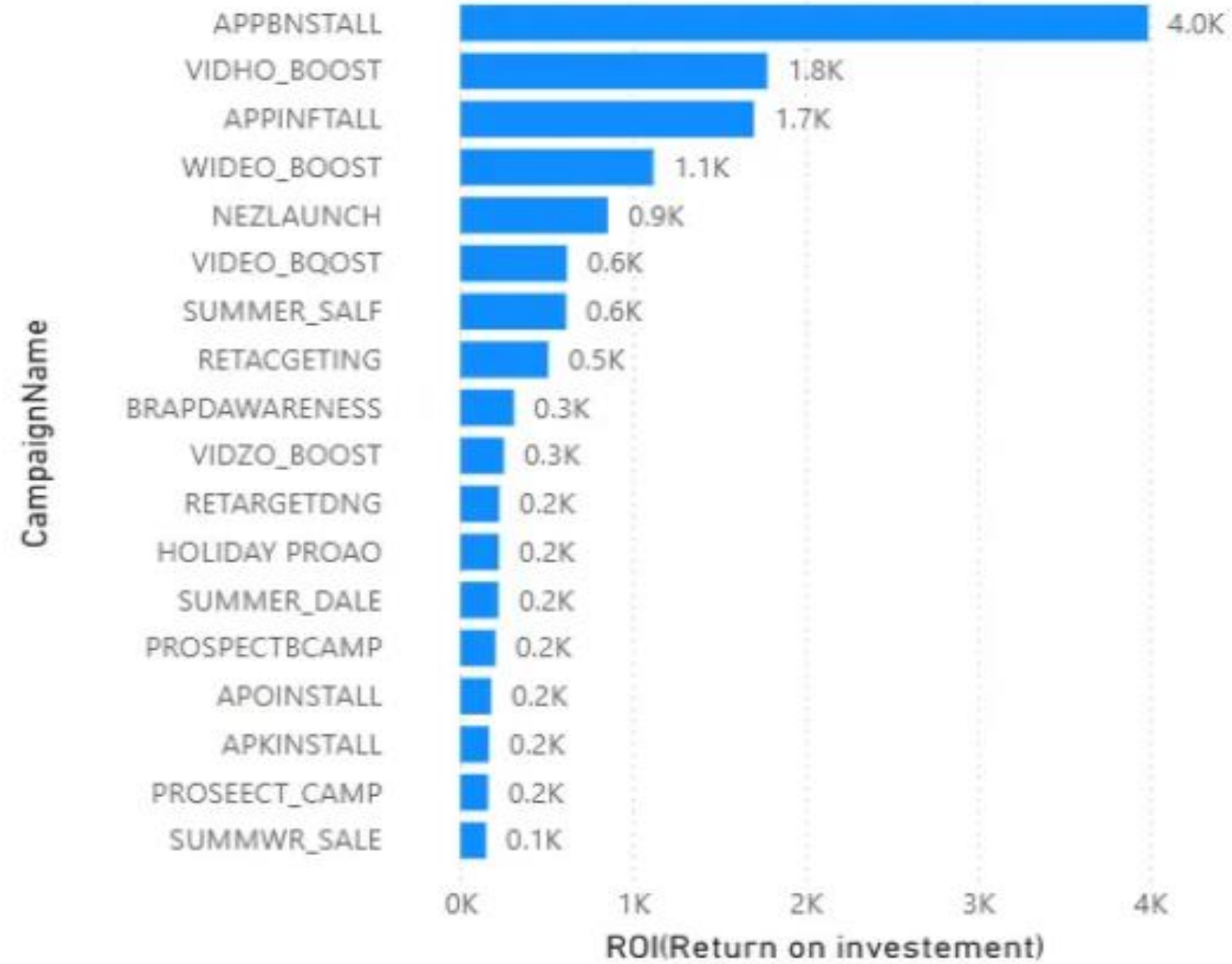
3.55

ROAS





Which campaigns have the highest ROI ?





How is revenue distributed across 2023, 2024, and 2025?



Year	Cumulative Revenue
2025	3,15,451.59
2024	1,81,964.72
2023	25,887.27
Total	3,15,451.59





Which campaigns show zero or negative ROI & ROAS?



Clean_CampaignName	Publishername	Cost	ROI	ROAS
AAPINSTALL	NEWTODAY	0.61	-1.00	0.00
AAPINSTALL	QOVIEHUB	1.11	-1.00	0.00
ABPINSTALL	COOKINGBLOG	2.15	-1.00	0.00
ABPINSTALL	FASHIONMAG	0.52	-1.00	0.00
ADPINSTALL	COOKINGBLOG	1.40	-1.00	0.00
ADPINSTALL	SPORTSDAILY	0.14	-1.00	0.00
AEPINSTALL	COOKINGBLOG	0.33	-1.00	0.00
AGPINSTALL	FASHIONMAG	1.25	-1.00	0.00
AGPINSTALL	TECHFORUM	0.67	-1.00	0.00
AHPINSTALL	SPORTSDAILY	0.17	-1.00	0.00
AIDEO_BOOST	MOVIEHUB	1.25	-1.00	0.00
AJPINSTALL	FASHIONMAG	1.31	-1.00	0.00
AIPINSTALL	SPORTSDAILY	1.21	-1.00	0.00
Total		88,925.63	2.55	3.55

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AIPINSTALL	SPORTSDAILY	1.21	-1.00	0.00
AJPINSTALL	FASHIONMAG	1.31	-1.00	0.00
AIDEO_BOOST	MOVIEHUB	1.25	-1.00	0.00





Is there a significant CTR-CVR imbalance across publishers?



23.61%

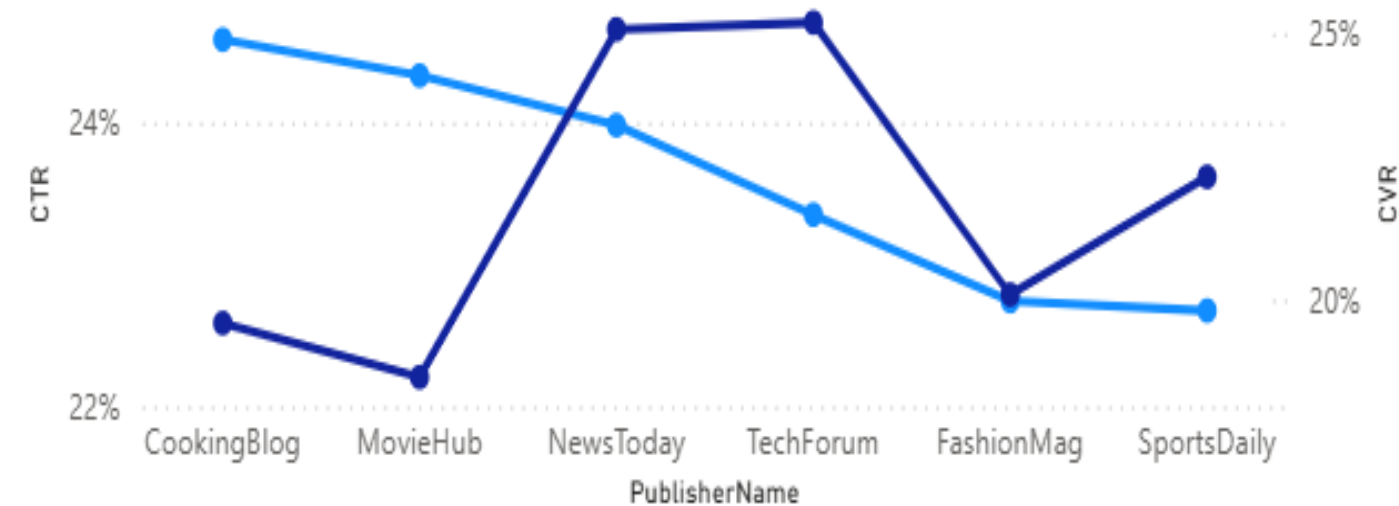
CTR Percentage

21.76%

CVR Percentage

CTR and CVR by PublisherName

● CTR ● CVR



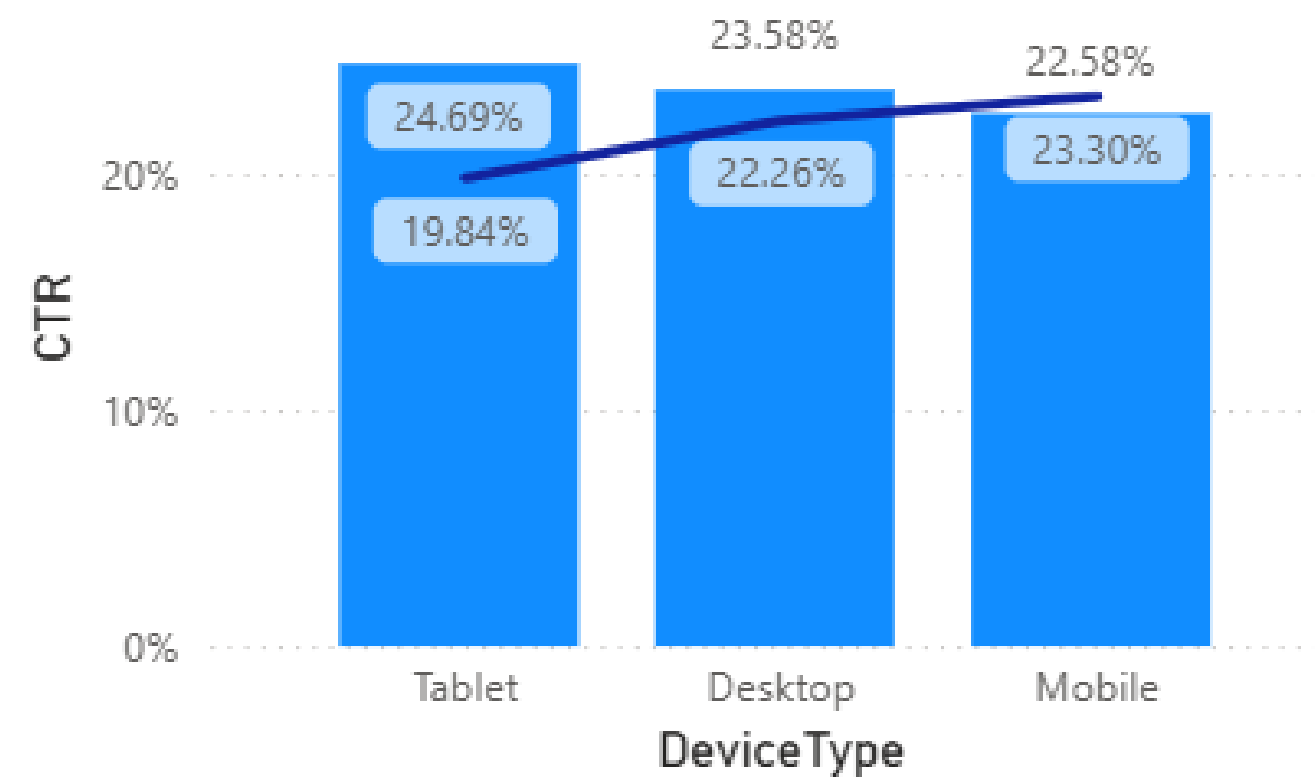


Is there a noticeable device preference trend for engagements (CTR) vs conversions (CVR)?



CTR and CVR by DeviceType

● CTR ● CVR



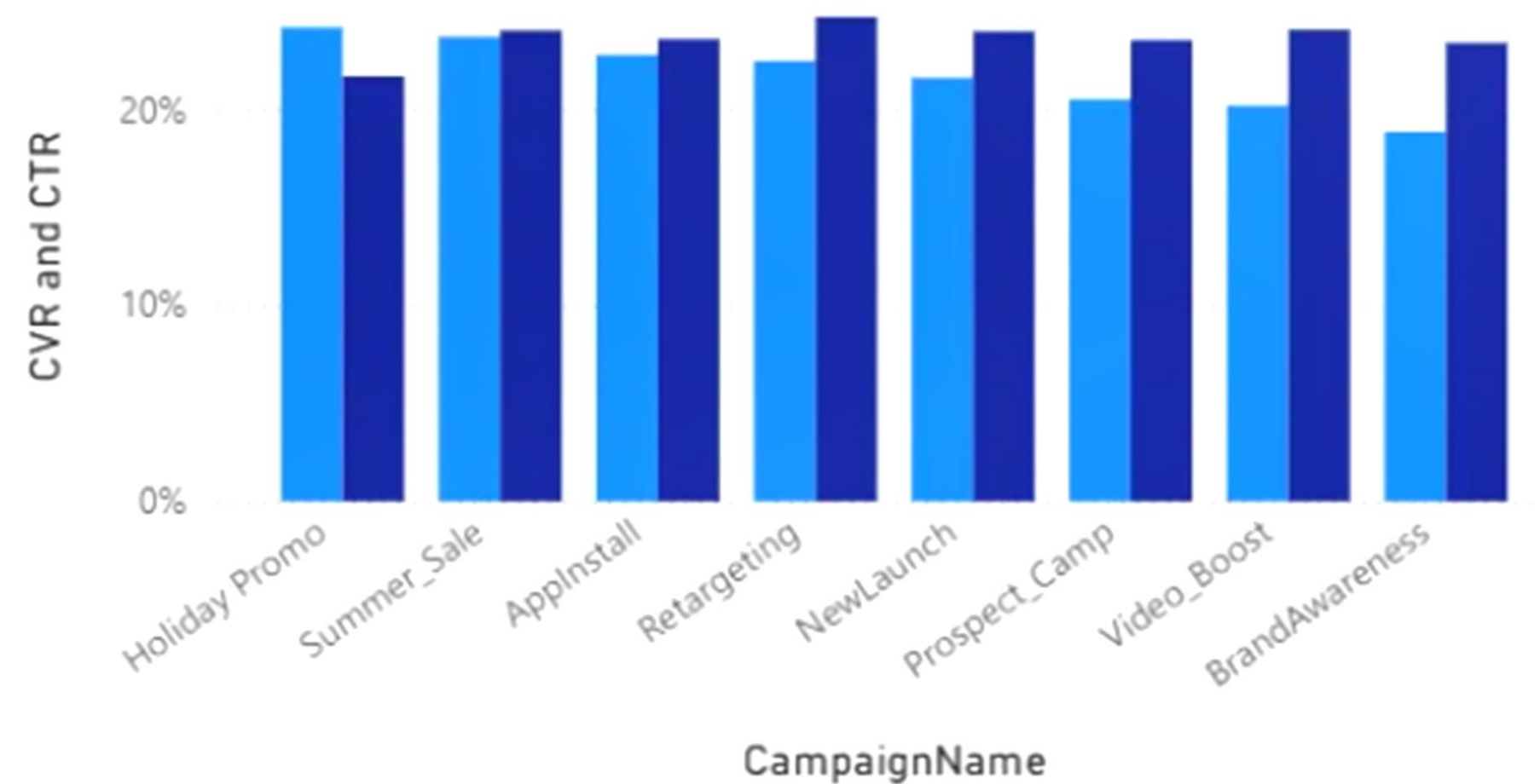


Which campaign generates the highest CTR OR CVR?



CVR and CTR by CampaignName

● CVR ● CTR



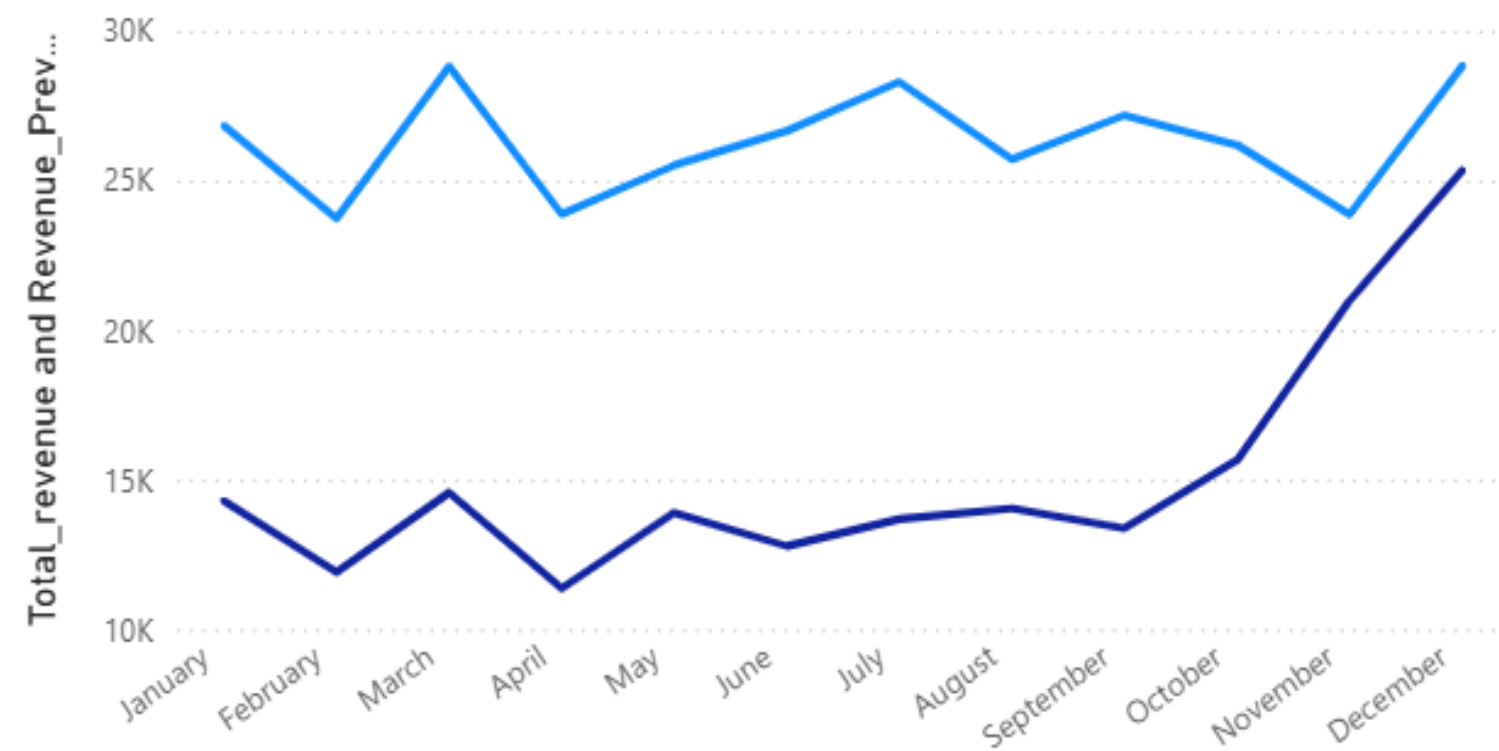


Comparing the Revenue with Previous Year



Total_revenue and Revenue_Prev_Year by Month

● Total_revenue ● Revenue_Prev_Year



133.49K

Revenue YTD

16K

Impressions Last_year



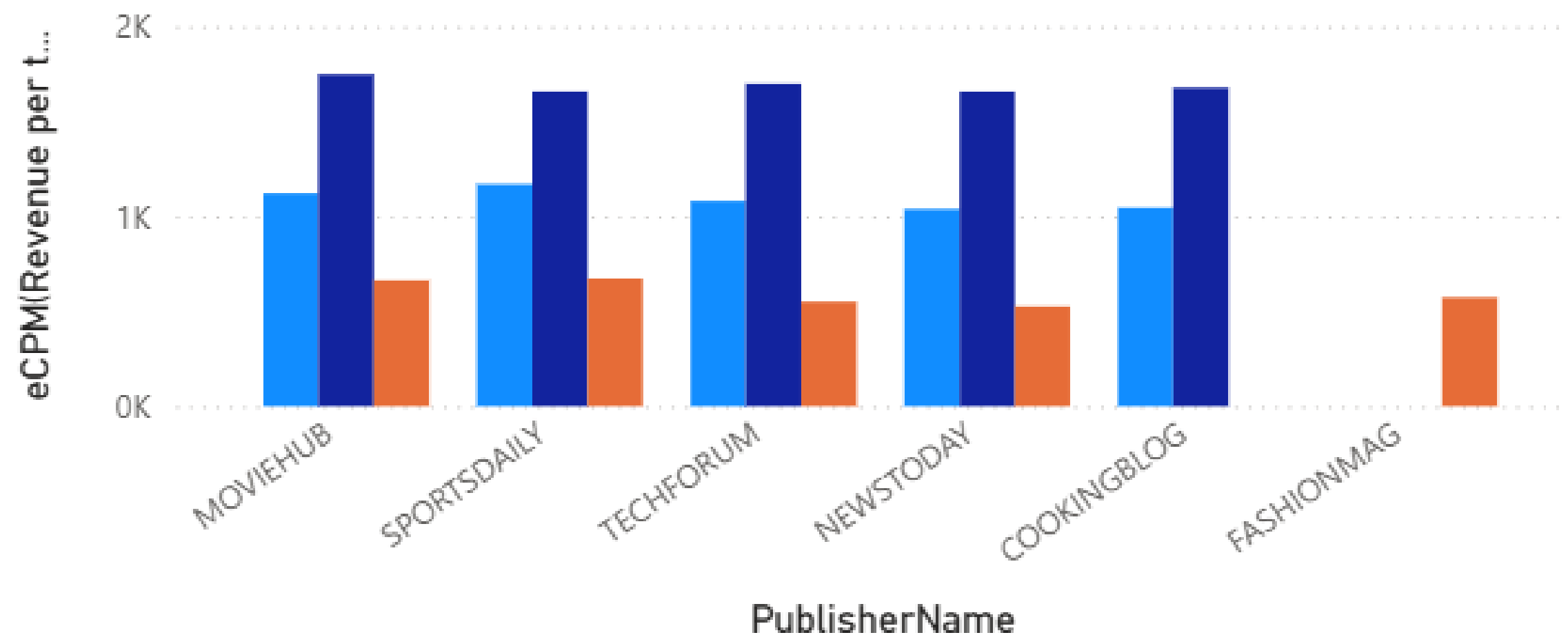


Top 5 Ecpm By Publishername & Device Type



Top 5 eCPM by PublisherName and DeviceType

DeviceType ● Desktop ● Mobile ● Other



PublisherName

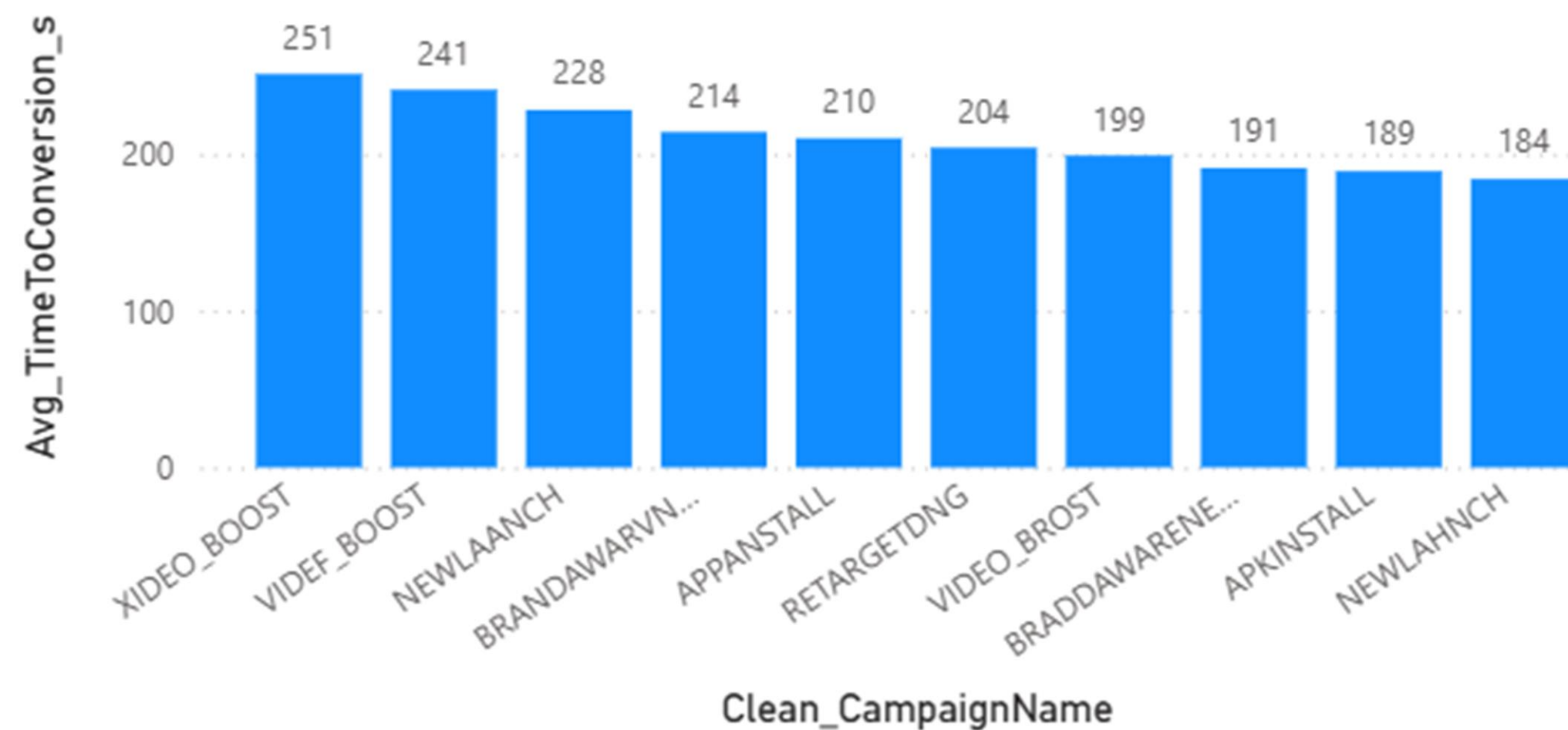




Average Time conversion by campaign name



Avg_TimeToConversion_s by CampaignName



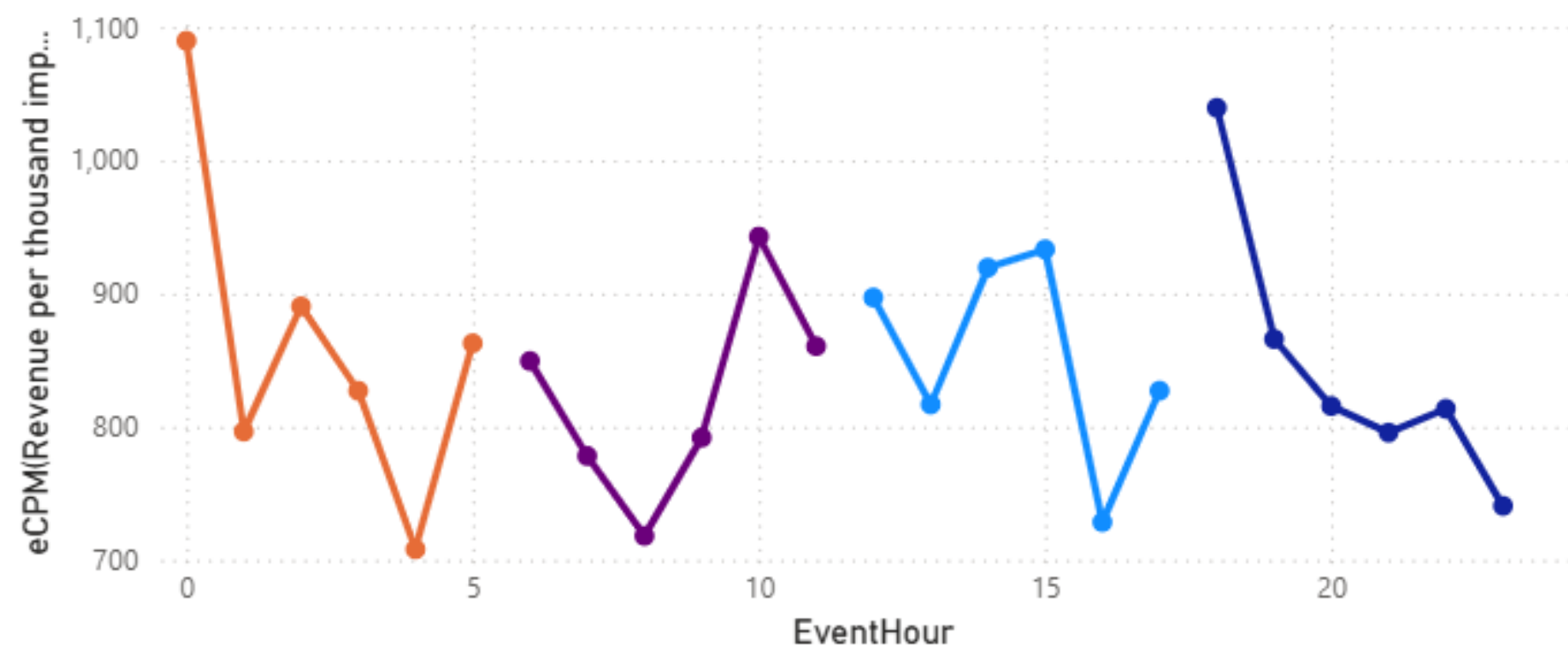


Which DayPart (Morning, Afternoon, Evening, Late-Night) delivers the highest eCPM?



eCPM(Revenue per thousand impression) by Hour and DayPart

DayPart ● Afternoon (12PM–6PM) ● Evening (6PM–12AM) ● Late Night (12AM–6AM) ● Morning (6AM–12P...



20.31K

eCPM(Revenue per thousand impression)

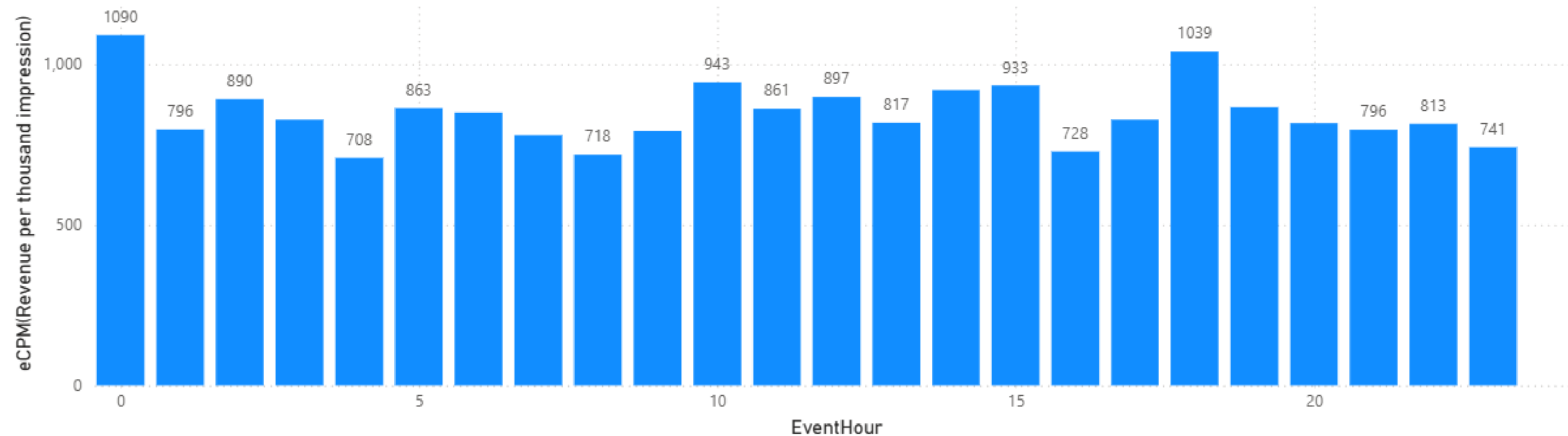




Does Morning (6AM-12PM) show noticeable dips in certain hours?



eCPM(Revenue per thousand impression) by EventHour





What is the percentage of frauds?



0.49250%

Fraud_Percentage

591

Total Fraud_entry

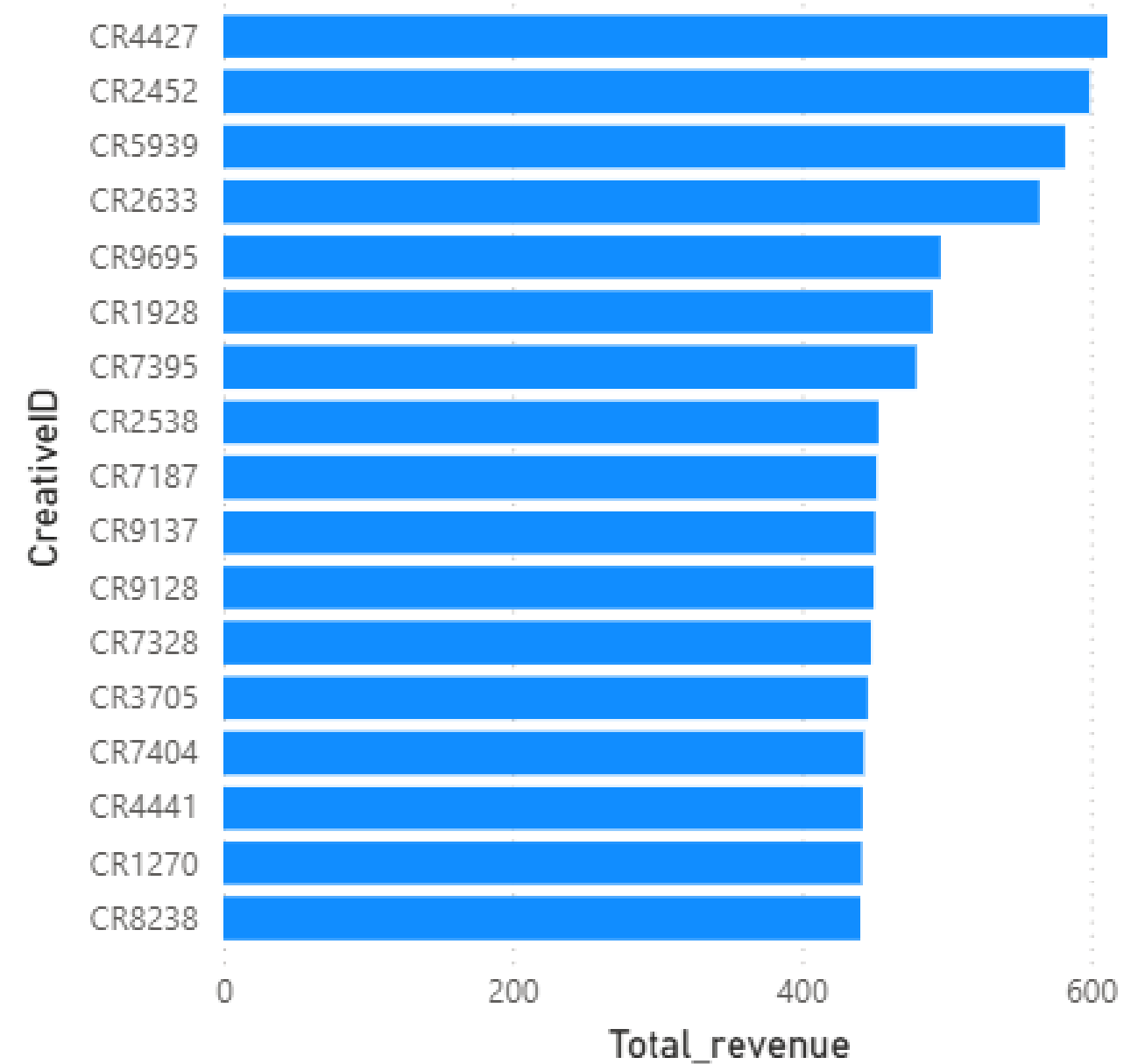




Top 10 creative ID as per revenue



Top 10 CeativeID by Total_Revenue





Business Recommendations



- Google Ads delivered the highest ROAS (3.4x)
- LinkedIn campaigns showed 22% lower CTR, reduce spend on low-performing ads
- Peak engagement observed on evenings (7–12 PM)
- Need to work on Festival season [July- October]
- Cookingblog and moviehub have high difference in CTR vs CVR
- Recommend shifting at least 30% of creatives to short-form video





THANK YOU!

Dinesh [Data Engineer]

