Report generator

In this document, you need to copy all the Report generation queries and the screenshots of reports 4-9 specified below

1. **Top 10 under-utilized Ad campaigns:**

```
select
t3.campaignID as campaignID,
t3.category as category,
t3.click as click,
t3.acquisition as acquisition,
t3.view as view,
round(t3.expenditure / t3.totalbudget * 100,5) as budgetUtilization
from
(
select
t1.campaign_id as campaignID,
t2.category as category,
t1.click as click,
t1.acquisition as acquisition,
t1.view as view,
t1.expenditure as expenditure,
t2.budget as remainingBudget,
t1.expenditure + t2.budget as totalBudget
from
(
select
feedback.campaign_id as campaign_id,
sum(feedback.view) as view,
sum(feedback.click) as click,
sum(feedback.acquisition) as acquisition,
sum(feedback.expenditure) as expenditure
from upgrad.adsfeedback as feedback
group by feedback.campaign_id
) as t1
inner join upgrad.ads as t2
on t1.campaign_id = t2.campaignid
) as t3
order by budgetUtilization;
```

2. **Top 10 spending Ad campaigns:**

```
select
t3.campaignID as campaignID,
t3.category as category,
t3.click as click,
t3.acquisition as acquisition,
t3.view as view,
round(t3.expenditure / t3.totalbudget * 100,5) as budgetUtilization
from
(
select
t1.campaign_id as campaignID,
t2.category as category,
t1.click as click,
t1.acquisition as acquisition,
t1.view as view,
t1.expenditure as expenditure,
t2.budget as remainingBudget,
t1.expenditure + t2.budget as totalBudget
from
(
select
feedback.campaign_id as campaign_id,
sum(feedback.view) as view,
sum(feedback.click) as click,
sum(feedback.acquisition) as acquisition,
sum(feedback.expenditure) as expenditure
from upgrad.adsfeedback as feedback
group by feedback.campaign_id
) as t1
inner join upgrad.ads as t2
on t1.campaign_id = t2.campaignid
) as t3
order by budgetUtilization desc;
```

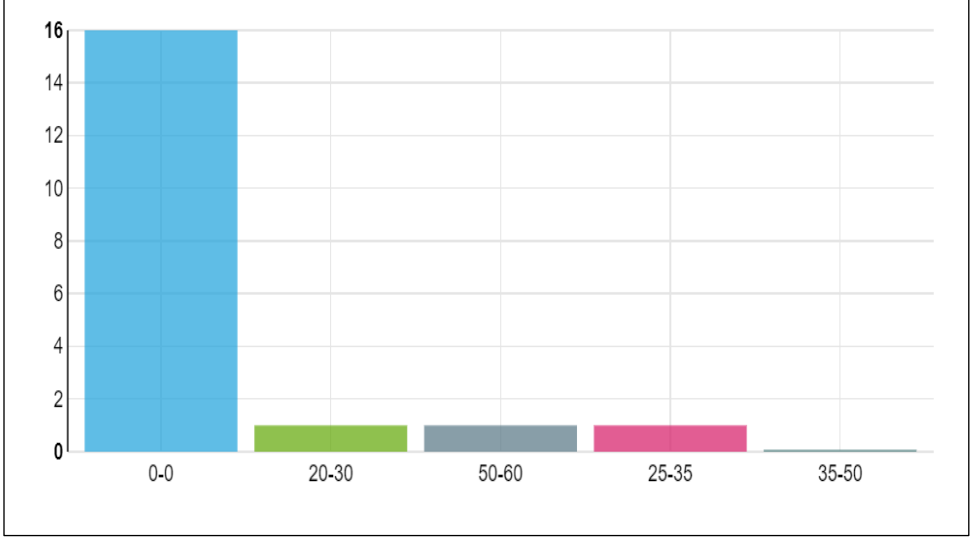
3. **Total expenditure and click-through rates (CTR) of Ad campaigns**

```
select
feedback.campaign_id as campaign_id,
round(sum(feedback.click) / sum(feedback.view),6) as CTR,
round(sum(feedback.expenditure),6) as expenditure
from upgrad.adsfeedback as feedback
group by feedback.campaign_id;
```

4. **Top five interactive (highest CTRs) age groups**

```
select
t1.ageRange as age_group,
sum(t1.CTR) as CTR
from
(
select
feedback.campaign_id as campaignID,
feedback.target_age_range as ageRange,
feedback.click / feedback.view as CTR
from upgrad.adsfeedback as feedback
) as t1
group by t1.ageRange
order by CTR desc;
```

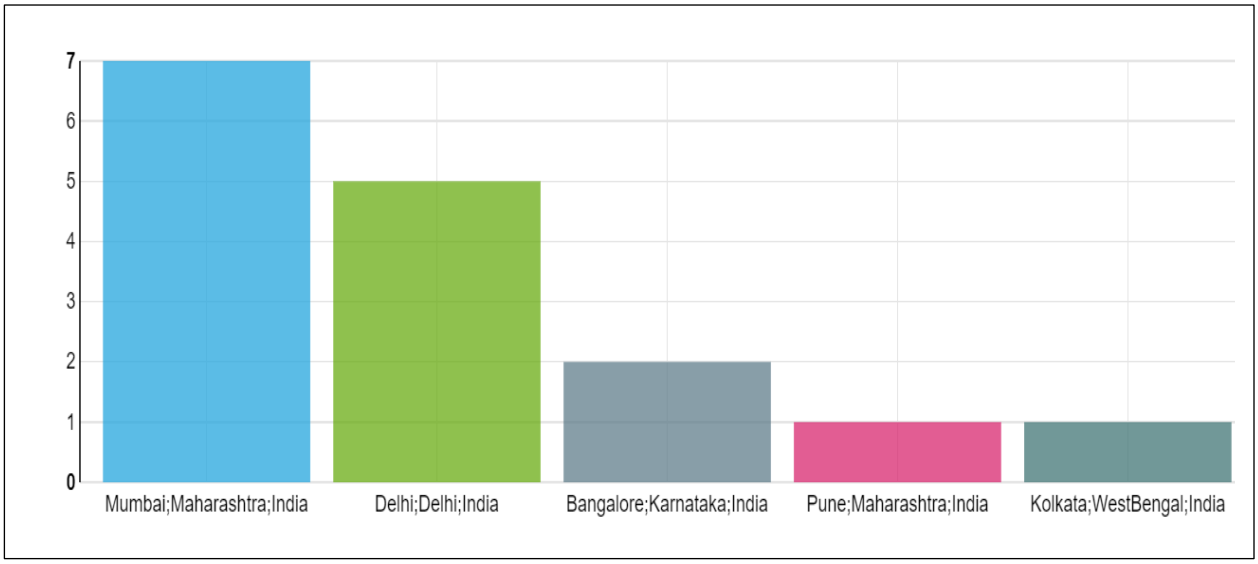
<Attach the screenshot of the bar chart here>



5. **Top five interactive locations**

```
select
t1.location as location,
sum(t1.CTR) as CTR
from
(
select
feedback.campaign_id as campaignID,
feedback.target_location as location,
feedback.click / feedback.view as CTR
from upgrad.adsfeedback as feedback
) as t1
group by t1.location
order by CTR desc
```

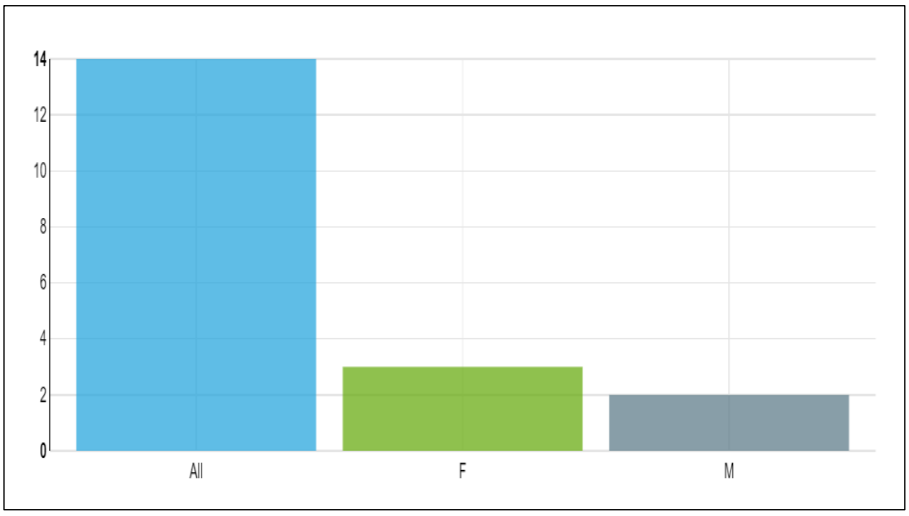
<Attach the screenshot of the bar chart here>



6. **Top interactive gender**

```
select
t1.gender as gender,
sum(t1.CTR) as CTR
from
(
select
feedback.campaign_id as campaignID,
feedback.target_gender as gender,
feedback.click / feedback.view as CTR
from upgrad.adsfeedback as feedback
) as t1
group by t1.gender
order by CTR desc;
```

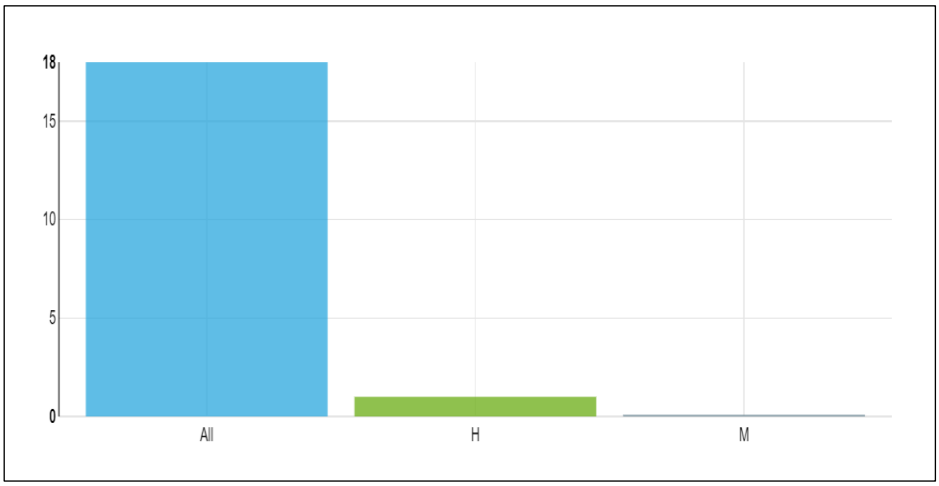
<Attach the screenshot of the bar chart here>



7. **Top interactive income buckets**

```
select
t1.income_bucket as income_bucket,
sum(t1.CTR) as CTR
from
(
select
feedback.campaign_id as campaignID,
feedback.target_income_bucket as income_bucket,
feedback.click / feedback.view as CTR
from upgrad.adsfeedback as feedback
) as t1
group by t1.income_bucket
order by CTR desc;
```

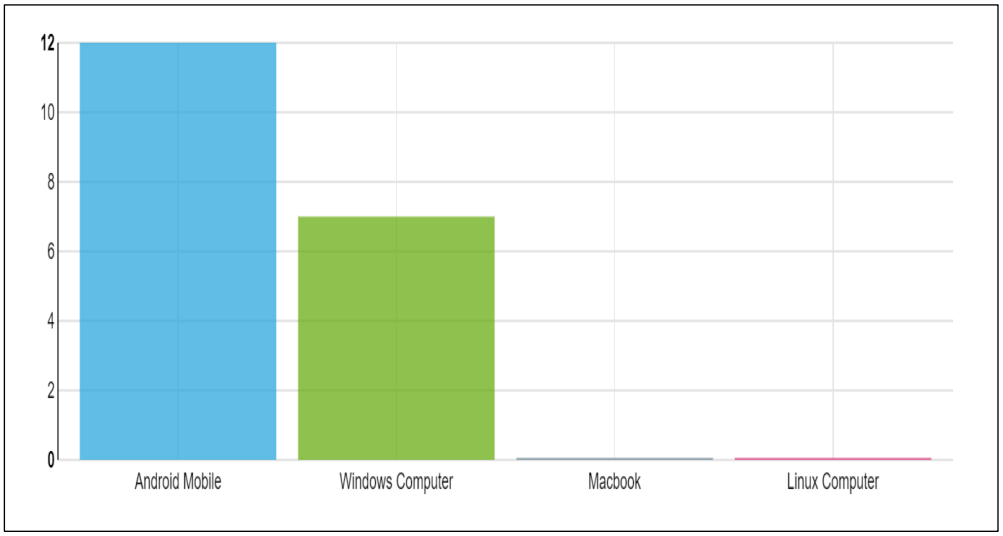
<Attach the screenshot of the bar chart here>



8. **Top five interactive device types**

```
select
t1.device_type as device_type,
sum(t1.CTR) as CTR
from
(
select
feedback.campaign_id as campaignID,
feedback.target_device_type as device_type,
feedback.click / feedback.view as CTR
from upgrad.adsfeedback as feedback
) as t1
group by t1.device_type
order by CTR desc;
```

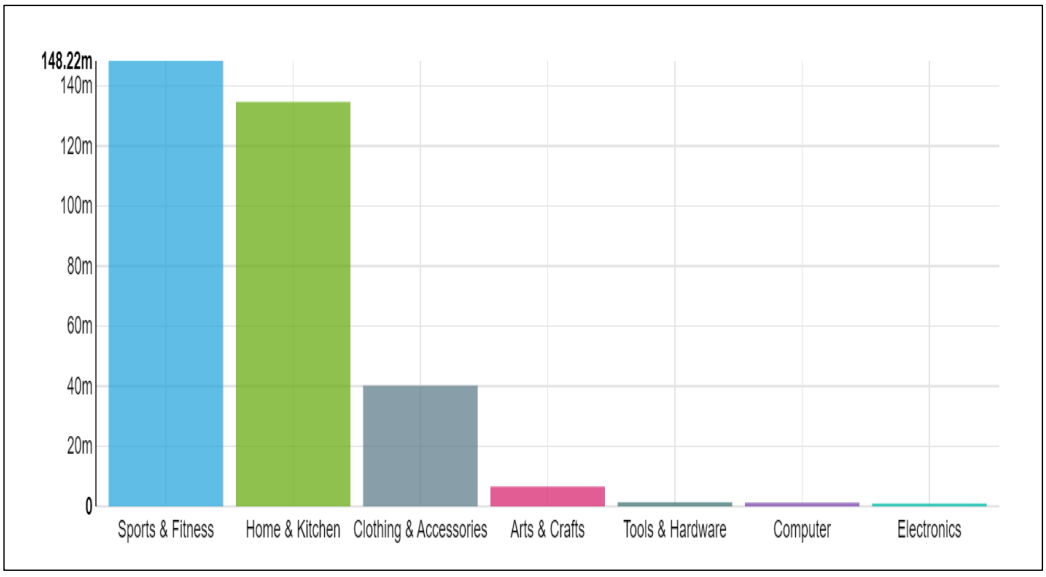
<Attach the screenshot of the bar chart here>



9. **Top 10 spending Ad categories**

```
select
t2.category as category,
round(sum(t1.expenditure),6) as expenditure
from upgrad.adsfeedback as t1
inner join upgrad.ads as t2
on t1.campaign_id = t2.campaignid
group by category
order by expenditure desc
limit 10;
```

<Attach the screenshot of the bar chart here>



10. **Highest price differences in CPM during auctions**

```
select
t1.request_id as request_id,
t2.cpm -t1.auction_cpm as difference
from upgrad.adsfeedback as t1
inner join upgrad.ads as t2
on t1.campaign_id = t2.campaignid
order by difference desc;
```