

1. lender leaderboard
used - dense_rank(), windowing, GROUP BY and COUNT()

FINAL :

```
SELECT DISTINCT user_db.First_Name, user_db.Last_Name,
user_db.Email, Leaderboard.number_of equipments, Leaderboard.Lender_Rank as
Ranking FROM user_db INNER JOIN (SELECT Top_Len.Lender_ID, DENSE_RANK()
OVER (ORDER BY Top_Len.number_of equipments DESC) as Lender_Rank,
Top_Len.number_of equipments FROM (SELECT A.Owner_ID as Lender_ID,
COUNT(A.Issue_Date_Time) as number_of equipments FROM (SELECT
userequip_db.User_ID as Owner_ID, borrow_db.Equipment_ID as Equipment_ID,
borrow_db.Issue_Date_Time FROM userequip_db INNER JOIN borrow_db WHERE
userequip_db.Equipment_ID = borrow_db.Equipment_ID) as A GROUP BY
A.Owner_ID) as Top_Len) AS Leaderboard ON user_db.User_ID =
Leaderboard.Lender_ID;
```

2. Gender classification for favorite sport

```
SELECT coalesce(A.Gender, 'All') as User_Gender, coalesce(sports_db.Name,
'All') as Favorite_Sport, COUNT(A.User_ID) Number_of_User FROM (SELECT
user_db.Gender, favorite_db.User_ID, favorite_db.Sport_ID FROM favorite_db
INNER JOIN user_db ON user_db.User_ID = favorite_db.User_ID) as A INNER
JOIN sports_db ON A.Sport_ID = sports_db.Sport_ID GROUP BY A.Gender,
sports_db.Name WITH ROLLUP
UNION
SELECT coalesce(A.Gender, 'All'), coalesce(sports_db.Name, 'All'),
COUNT(A.User_ID) Number_of_User FROM (SELECT user_db.Gender,
favorite_db.User_ID, favorite_db.Sport_ID FROM favorite_db INNER JOIN
user_db ON user_db.User_ID = favorite_db.User_ID) as A INNER JOIN sports_db
ON A.Sport_ID = sports_db.Sport_ID GROUP BY sports_db.Name, A.Gender WITH
ROLLUP;
```

3. Age Grouping of Users along with gender based classification
timestampdiff(YEAR, birth_date, now()) AS age

```

SELECT  coalesce(udb.Gender, 'All') User_Gender ,
coalesce(Age_Wise.Age_Group, 'All') User_Age_Group, COUNT(udb.User_ID)
Number_of_users FROM user_db udb INNER JOIN (SELECT A.User_ID,
CASE WHEN A.User_Age >= 18
and A.User_Age <= 24 then "[18-24]" when A.User_Age >= 25
and A.User_Age <= 30 then "[25-30]" when A.User_Age >= 31
and A.User_Age <= 35 then "[31-35]" when A.User_Age >= 36
and A.User_Age <= 40 then "[36-40]"
ELSE "41 and above"
END as Age_Group
FROM
(SELECT user_db.User_ID, user_db.Gender, timestampdiff(YEAR,
user_db.Date_of_Birth, now()) as User_Age FROM user_db) as A) as Age_Wise
ON udb.User_ID = Age_Wise.User_ID GROUP BY udb.Gender, Age_Wise.Age_Group
WITH ROLLUP UNION
SELECT  coalesce(udb.Gender, 'All') User_Gender,
coalesce(Age_Wise.Age_Group, 'All') User_Age_Group, COUNT(udb.User_ID)
Number_of_users FROM user_db udb INNER JOIN (SELECT A.User_ID,
CASE WHEN A.User_Age >= 18
and A.User_Age <= 24 then "[18-24]" when A.User_Age >= 25
and A.User_Age <= 30 then "[25-30]" when A.User_Age >= 31
and A.User_Age <= 35 then "[31-35]" when A.User_Age >= 36
and A.User_Age <= 40 then "[36-40]"
ELSE "41 and above"
END as Age_Group
FROM
(SELECT user_db.User_ID, user_db.Gender, timestampdiff(YEAR,
user_db.Date_of_Birth, now()) as User_Age FROM user_db) as A) as Age_Wise
ON udb.User_ID = Age_Wise.User_ID GROUP BY Age_Wise.Age_Group, udb.Gender
WITH ROLLUP;

```

4.