**## Basic select**

**1 Recycle and low fat products**

**QUERY:**

**select product\_id from products where low\_fats = 'Y' and recyclable = 'Y';**

**2 Find customer referee**

**QUERY:**

**Select name from Customers where referee\_id is null or referee\_id != 2;**

**3 Big countries**

**QUERY:**

**select name,population,area from World where population >= 25000000 or area >= 3000000;**

**4. Article views I**

**QUERY:**

**Select tweets\_id from Tweets where length(content) > 15;**

**## Basic Joins**

**1 Replace employee id with unique identifier.**

**QUERY:**

**select eu.unique\_id, em.name from employees em left join employeeUNI eu**

**on em.id = eu.id;**

**2 Product sales analysis**

**QUERY:**

**select p.product\_name, s.year, s.price from product p join sales s on**

**p.product\_id = s.product\_id;**

**3 Customers who visited but not made any transactions**

**QUERY:**

**select v.customer\_id,count(\*) as count\_no\_trans from visits v left join transactions t on**

**v.visit\_id = t.visit\_id where t.transaction\_id is null group by v.customer\_id;**

**4 Rising temperature**

**QUERY:**

**select w1.id from weather w1, weather w2 where  datediff(w1.recorddate,w2.recorddate) = 1 and w1.temperature > w2.temperature;**

**5 Average time of process per machine**

**QUERY:  
select machine\_id, round(avg(case when activity\_type = 'start' then -timestamp else timestamp end)\*2,3) processing\_time from activity group by machine\_id**

**6 Employee bonus**

**SELECT name,bonus FROM Employee LEFT JOIN Bonus ON Employee.empId=Bonus.empId WHERE bonus<1000 or bonus is null;**

**7 Students and examinations**

**QUERY:**

**select**

**s.student\_id,**

**s.student\_name,**

**sub.subject\_name,**

**count(e.student\_id) as attended\_exams**

**from**

**students s**

**join**

**subjects sub**

**left join**

**examinations e**

**on**

**s.student\_id = e.student\_id and sub.subject\_name = e.subject\_name**

**group by**

**s.student\_id,**

**sub.subject\_name**

**order by**

**student\_id asc,**

**subject\_name asc**

**8 Managers with at least 5 direct reports**

**QUERY:**

**select e1.name from employee e1 join employee e2 on e1.id = e2.managerId group by e1.id having count(\*) >= 5;**

**9 Confirmation date**

**QUERY:**

**select s.user\_id, round(avg(if(c.action = 'confirmed',1,0)),2) as confirmation\_rate**

**from signups s left join confirmations c on s.user\_id = c.user\_id group by user\_id;**

**## Basic aggregate function**

**1 Not boring movies**

**QUERY:**

**select \* from cinema where id%2 = 1 and description not like 'boring' order by rating desc;**

**2 Average selling price**

**QUERY:**