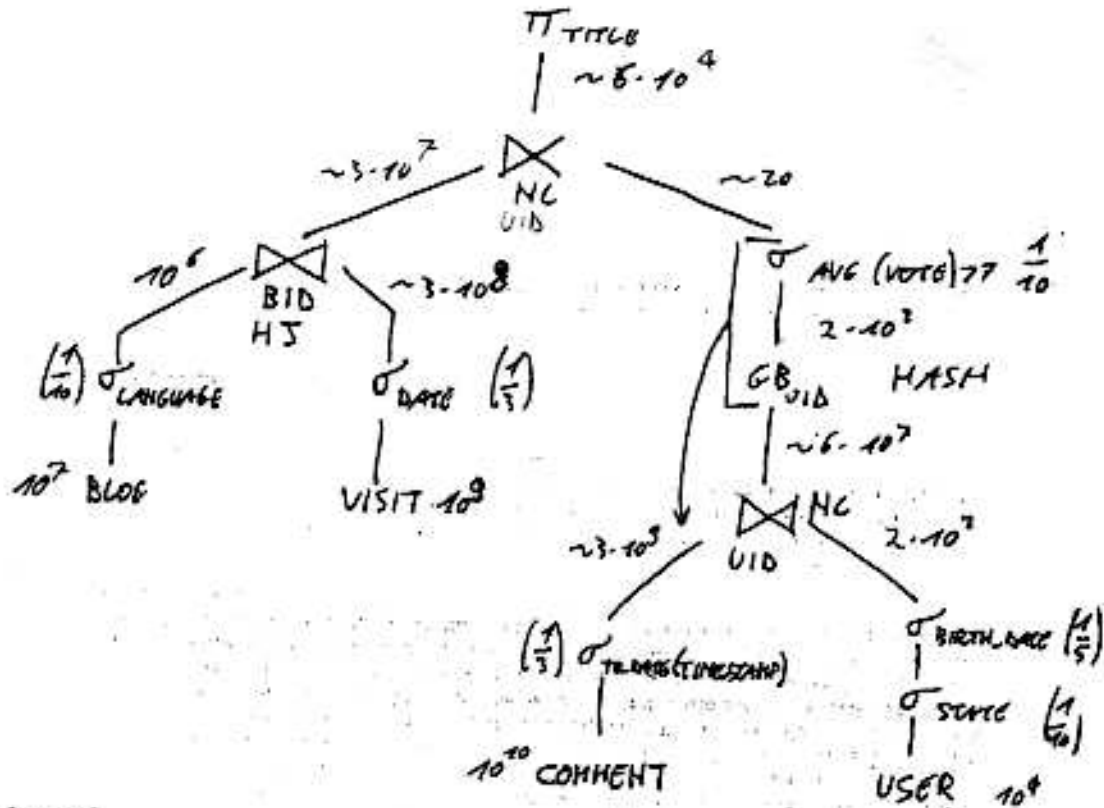


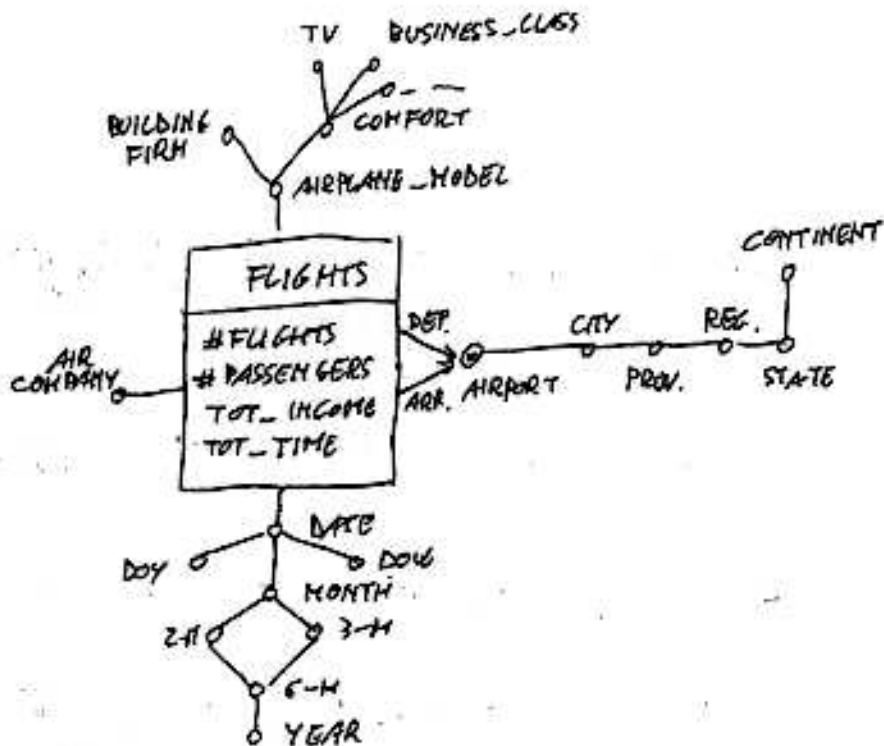
OPTIMIZER



INDEXES

BLOG : HASH ON LANGUAGE  
 USER : HASH ON STATE

DW



QUERY A)

```
SELECT AIR_COMPANY, DEPARTURE_STATE, MONTH,
SUM (# FLIGHTS),
SUM (# PASSENGERS),
SUM (SUM (INCOME)) OVER (PARTITION BY
AIR_COMPANY, DEPARTURE_STATE
ORDER BY MONTH
ROWS UNBOUNDED PRECEDING)
FROM FLIGHTS AIRPORT AS DEPARTURE, TIME T, AIRPLANE AP
WHERE F.APID = D.APID AND F.TID = T.TID AND F.APID = AP.APID
YEAR = '2011' AND AIRPLANE_MODEL = 'BOING 747'
GROUP BY AIR_COMPANY, DEPARTURE_STATE, MONTH
```

QUERY B)

```
SELECT AIR_COMPANY, MONTH, DEP_CITY, ARR_CITY,  
SUM (INCOME) / COUNT (DISTINCT DATE),  
SUM (# PASSENGERS) / SUM (# FLIGHTS),  
SUM (TOT_TIME) / SUM (# FLIGHTS),  
SUM (SUM (# PASSENGERS)) OVER  
    (PARTITION BY DEP_CITY)  
FROM FLIGHTS F, AIRPORT AS DEP, AIRPORT AS  
ARR, TIME T  
WHERE F.DEP_AID = DEP.AID AND F.ARR_AID = ARR.AID AND F.TID =  
T.TID  
DEP.STATE = 'ITALY' AND ARR.CONTINENT = 'EUROPE'  
GROUP BY AIR_COMPANY, MONTH, DEP_CITY, ARR_CITY
```