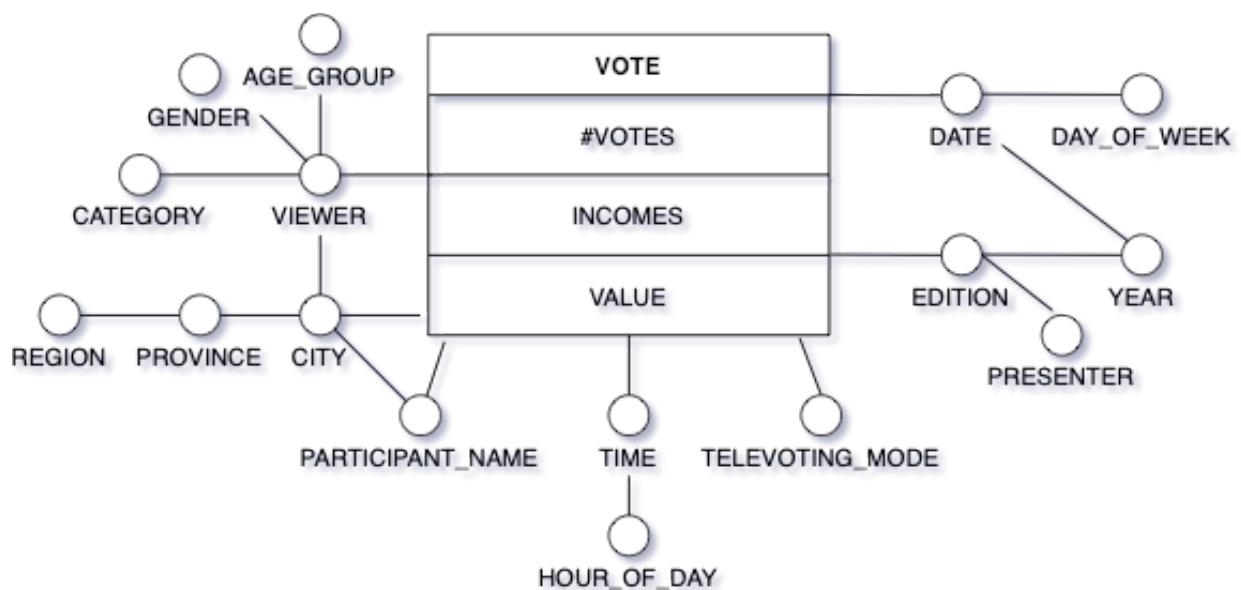


Homework 1 - Enrico Castelli s280124

Data Warehouse

Conceptual schema



Logical schema

VIEWER(VID, AGEGROUP, GENDER, CATEGORY, LID)

LOCATION(LID, CITY, PROVINCE, REGION)

PARTICIPANT(PID, PARTICIPANTNAME, LID)

TIMETABLE(TID, TIME, HOUROFDAY)

EDITION(EID, PRESENTER, YEAR)

DATETABLE(DID, DATE, DAYOFWEEK, EID)

Facts table:

VOTE(VTID, VID, PID, TID, EID, DID, NUMVOTES, INCOMES, VALUE, TELEVOTINGMODE)

Queries

(a)

SQL

```

SELECT E.YEAR, VW.CITY, D.DAYOFWEEK,
       SUM(VT.INCOMES) OVER(ORDER BY E.YEAR
                           ROWS UNBOUNDED PRECEDING),
       100*SUM(VT.INCOMES)/SUM(SUM(VT.INCOMES)) OVER(PARTITION BY E.YEAR),
       AVG(SUM(VT.INCOMES)) OVER(PARTITION BY D.DAYOFWEEK)
FROM VOTE VT, VIEWER VW, DATETABLE D, EDITION E
WHERE VT.VTID=VW.VID AND VT.DID=D.DID AND D.EID=E.EID
      AND VT.TELEVOTINGMODE="Instagram"
GROUP BY E.YEAR, VW.CITY, D.DAYOFWEEK

```

(b)

SQL

```

SELECT E.YEAR, P.PARTICIPANTNAME,
       SUM(SUM(NUMVOTES)) OVER(PARTITION BY E.YEAR),
       100*SUM(NUMVOTES)/SUM(SUM(NUMVOTES)) OVER(PARTITION BY E.YEAR),
       RANK() OVER(PARTITION BY P.PARTICIPANTNAME
                   ORDER BY COUNT(DISTINCT D.DATE) DESC)
FROM VOTE VT, DATETABLE D, EDITION E, PARTICIPANT P
WHERE VT.DID=D.DID AND VT.PID=P.PID AND E.YEAR BETWEEN 2000 AND 2010
GROUP BY E.YEAR, P.PARTICIPANTNAME

```