ex2 – cloud computing

# Scripts – Attach as command.sql

/\* Create records table \*/

CREATE EXTERNAL TABLE `records`(

`licenseplate` string COMMENT 'from deserializer',

`sensor` int COMMENT 'from deserializer',

`time` date COMMENT 'from deserializer')

ROW FORMAT SERDE

'org.openx.data.jsonserde.JsonSerDe'

STORED AS INPUTFORMAT

'org.apache.hadoop.mapred.TextInputFormat'

OUTPUTFORMAT

'org.apache.hadoop.hive.ql.io.IgnoreKeyTextOutputFormat'

LOCATION

's3://y20s2-ex2/records'

TBLPROPERTIES (

'has\_encrypted\_data'='false',

'transient\_lastDdlTime'='1593339634')

/\* Create sensors table \*/

CREATE EXTERNAL TABLE `sensors`(

`sensor` int,

`pricing` float)

ROW FORMAT DELIMITED

FIELDS TERMINATED BY ','

STORED AS INPUTFORMAT

'org.apache.hadoop.mapred.TextInputFormat'

OUTPUTFORMAT

'org.apache.hadoop.hive.ql.io.HiveIgnoreKeyTextOutputFormat'

LOCATION

's3://y20s2-ex2/sensors'

TBLPROPERTIES (

'has\_encrypted\_data'='false',

'transient\_lastDdlTime'='1593338062')

/\* Generate sensors report \*/

WITH ch AS (

SELECT

r.licenseplate as licenseplate,

sensor as sensor,

COUNT(r.sensor) as tolls,

date\_format(r.time, '%M') as month,

date\_format(r.time, '%Y') as year

FROM records r

GROUP BY r.licenseplate, r.sensor, date\_format(r.time, '%M'), date\_format(r.time, '%Y')

),

tc AS (

SELECT

ch.licenseplate as licenseplate,

ch.sensor AS sensor,

ch.tolls AS tolls,

ch.tolls\*sensors.pricing AS cost,

ch.year AS year,

ch.month AS month

FROM ch, sensors

WHERE sensors.sensor=ch.sensor

),

final AS (

SELECT

tc.licenseplate as "License plate",

SUM(tc.cost) as "Total cost",

tc.month as "Month",

tc.year as "Year",

SUM(tc.tolls) as "tolls"

FROM tc

GROUP BY tc.licenseplate, tc.month, tc.year

)

select \*

FROM final

-- WHERE "License plate"='YUYRB78292';

# Artifacts of validation

A screenshot of a social media post

Description automatically generated