,EV Data Case Study

Table: overall\_Info

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| brand | model | body\_style | segment | price\_euro |
| tesla | model 3 long range dual motor | sedan | d | 55480 |
| volkswagen | id.3 pure | hatchback | c | 30000 |
| polestar | 2 | liftback | d | 56440 |
| bmw | ix3 | suv | d | 68040 |
| honda | e | hatchback | b | 32997 |
| lucid | air | sedan | f | 105000 |
| peugeot | e-208 | hatchback | b | 29682 |
| audi | e-tron | suv | d | 55000 |
| mercerdes | eqc 400 4 matic | suv | d | 69484 |
| hyundai | ioniq eletric | liftback | c | 34459 |
| porche | tycan turbo | sedan | f | 180781 |
| mg | zs\_ev | suv | b | 30000 |
| mini | cooper se | hatchback | b | 31681 |
| tesla | model y long range | suv | d | 58620 |
| volkswagen | id.4 | suv | c | 45000 |
| volvo | xc40 p8 awd | suv | c | 60437 |
| kia | e-niro 64 kwh | suv | c | 38105 |
| renault | zoe ze50 r110 | hatchback | b | 31184 |
| tesla | cybertruck tri | pickup | n | 75000 |
| lexus | ux300e | suv | c | 50000 |
| skoda | enyaq iv 50 | suv | c | 35000 |
| seat | mii electric | hstchback | a | 20129 |
| citroen | e-c4 | suv | c | 40000 |
| jaguar | i-pace | suv | e | 75351 |
| ford | mustang mach-e er awd | suv | d | 62900 |
| fiat | 500 e convertible | cabrio | b | 37900 |
| gmc | hummer\_ev | suv | d | 87000 |
| ford | f-150 lightning | pickup | n | 54319 |
| revian | r1t | pickup | n | 68620 |

Table: specifications

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| brand | model | accelaration | top\_speed | overall\_range | power\_train |
| tesla | model 3 long range dual motor | 4.6 | 233 | 450 | awd |
| volkswagen | id.3 pure | 10 | 160 | 270 | rwd |
| polestar | 2 | 4.7 | 210 | 400 | awd |
| bmw | ix3 | 6.8 | 180 | 360 | rwd |
| honda | e | 9.5 | 145 | 170 | rdw |
| lucid | air | 2.8 | 250 | 610 | awd |
| peugeot | e-208 | 8.1 | 150 | 275 | fwd |
| audi | e-tron | 6.3 | 180 | 400 | awd |
| mercerdes | eqc 400 4 matic | 5.1 | 180 | 370 | awd |
| hyundai | ioniq electric | 9.7 | 165 | 250 | fwd |
| porche | tycan turbo | 2.8 | 260 | 375 | awd |
| mg | zs\_ev | 8.2 | 140 | 220 | fwd |
| mini | cooper se | 7.3 | 150 | 185 | fwd |
| tesla | model y long range | 5.1 | 217 | 425 | awd |
| volkswagen | id.4 | 7.5 | 160 | 420 | rwd |
| volvo | xc40 p8 awd | 4.9 | 180 | 375 | awd |
| kia | e-niro 64 kwh | 7.8 | 167 | 370 | fwd |
| renault | zoe ze50 r110 | 11.4 | 135 | 315 | fwd |
| tesla | cybertruck tri | 3 | 210 | 750 | awd |
| lexus | ux300e | 7.5 | 160 | 270 | fwd |
| skoda | enyaq iv 50 | 10 | 160 | 290 | rwd |
| seat | mii electric | 12.3 | 130 | 195 | fwd |
| citroen | e-c4 | 9.7 | 150 | 250 | fwd |
| jaguar | i-pace | 4.8 | 200 | 365 | awd |
| ford | mustang mach-e er awd | 7 | 180 | 450 | rwd |
| fiat | 500 e convertible | 9 | 150 | 250 | fwd |
| gmc | hummer\_ev | 3.9 | 170 | 529 | fwd |
| ford | f-150 lightning | 4.5 | 180 | 480 | awd |
| revian | r1t | 3 | 201 | 505 | rwd |

1. Create a report that shows the brand, model and price\_euro from the overall\_info table sorted by price\_euro in most expensive to least expensive.

Answer = select brand,model,price\_euro from overall\_info order by price\_euro desc;

1. Create a report that shows the brand, model, acceleration and top\_speed from the specifications table sorted by top\_speed in descending order (fastest to slowest).

Answer = select brand, model, accelaration, top\_speed from specifications order by top\_speed desc;

1. Create a report that shows brand, model, power\_train, acceleration from the specifications table with awd power\_train and order by acceleration.

Answer = select brand,model,power\_train,accelaration from specifications where power\_train = 'awd' order by accelaration;

1. Create a report that shows brand, model and acceleration as acceleration(0-100) from specifications table sorted by top\_speed in descending order and then acceleration in ascending order.

Answer = select brand,model,accelaration as 'accelaration(0-100)' from specifications order by top\_speed desc,accelaration;

1. Create a report that shows all records from overall\_info table where body\_style is suv only.

Answer = select \* from overall\_info where body\_Style = 'suv';

1. Create a report that shows each brand have how many models in given dataset from overall\_info table.

Answer = select brand, count(model) from overall\_info group by brand;

1. Create a report that shows brand, model, acceleration and top\_speed from specification table where acceleration is below 4 seconds and top\_speed is above 200 mph.

Answer = select brand, model, accelaration, top\_speed from specifications where accelaration < 4 and top\_speed > 200;

1. Create a report that shows brand, model, overall\_range from specifications table where overall\_range is between 400 miles and 500 miles sorted by highest to lowest overall\_range.

Answer = select brand,model,overall\_range from specifications where overall\_range between 400 and 500 order by overall\_range desc;

1. Create a report that shows all distinct types of body\_style from overall\_info table.

Answer = select distinct body\_style from overall\_info;

1. Create a report that shows the all the records of second highest price from overall\_info table using limit clause.

Answer = select \* from overall\_info order by price\_euro desc limit 1,1;

11. Create a report that shows all the records of brands whose names end with ‘a’ or ‘I’ from the overall\_info Table.

Answer = select \* from overall\_info where brand like '%a' or brand like '%i';

1. Create a report that shows brands and models where latter l is present in third space in brand column from specification.

Answer = select brand, model from specifications where brand like '\_\_l%';

1. Create a report showing how many models uses which power train by using count aggregate function temporarily renames as NumberOfModels and group by statement

Answer = select count(\*) as NumberOfModels ,power\_train from specifications group by power\_train;

1. Create a report that shows the maximum range, minimum range and average range from the specifications table. All saved as MaxRange, MinRange and AverageRange respectively using alias.

Answer = select max(overall\_range) as MaxRange,min(overall\_range) as MinRange, Avg(overall\_range)as AvgRange from specifications;

1. Create a report that shows the average Acceleration rounded to the next value saved as seconds from specifications table.

Answer = select floor(avg(accelaration)) as Seconds from specifications;

1. Create a report that shows the brand,model and segment in uppercase letter and renamed as Capital, edition and Class respectively from the overall\_info table.

Answer = select upper(brand) as Capital, upper(model) as edition, Upper(segment) as Class from overall\_info;

1. Create a report that fetch the first 3 characters of brand name temporarily renames as shortform and model from overall specification all in upper case latters.

Answer = select upper(substring(brand,1,3)) as shortform,upper(model) from overall\_info;

1. Create a report that shows second highest price of car using sub query from overall\_info table.

Answer = select max(price\_euro) from overall\_info where price\_euro <(select max(price\_euro) from overall\_info);

1. Create a report that shows all the records excluding sedan, suv and hatchbacks sorted by price from highest to lowest from overall\_info table.

Answer = select\*from overall\_info where body\_style not in ('sedan','suv','hatchback') order by price\_euro desc;

1. Create a view named cardetails that shows brand, model and segment from overall\_info and then drop that view.

Answer =1) create view cardetails as select brand,model,segment from overall\_info;

2) drop view cardetails;

21. Create a report that shows brand, model, body\_style, overall\_range, price\_euro by combining overall\_info table and specifications table.

Answer = select o.brand,o.model,o.body\_style,s.Overall\_range,o.price\_euro from overall\_info as o join specifications as s on o.brand = s.brand;

1. Create a report that shows model, acceleration, top\_speed, price\_euro from overall\_info and and specifications table sorted by top\_speed and in descending order.

Answer = select o.model,s.accelaration,s.top\_speed,o.price\_euro from overall\_info as o join specifications as s on o.brand = s.brand order by top\_speed desc;

1. Create a report that shows brand, model, acceleration, top\_speed, prize\_euro from overall\_info table and specifications table of top five cars where price\_euro is below 50000 euro and top\_speed is above 150 mph.

Answer = select o.brand,o.model,s.accelaration,s.top\_speed,o.price\_euro from overall\_info as o join specifications as s on o.brand = s.brand where price\_euro <50000 and top\_speed > 150 limit 5;

1. Create a report that shows mode, body\_style, segment, power\_train from both tables grouped by segment having awd power\_train.

Answer = select o.model,o.body\_style,o.segment,s.power\_train from overall\_info as o join specifications as s on o.brand = s.brand group by o.segment having power\_train = 'awd';

1. Create a reports that shows model, overall\_range and price\_euro from both tables where price\_euro between 30000 and 60000 and overall\_range between 300 and 500;

Answer = select o.model,s.overall\_range,o.price\_euro from overall\_info as o inner join specifications as s on o.brand = s.brand where price\_euro between 30000 and 60000 and overall\_range between 300 and 500;