

Q1)

- a) `SELECT S.sname
FROM Store AS S, Cloth AS C, Sells AS B
WHERE S.sid = B.sid AND B.cid = C.cid
AND S.country = "Turkey" AND C.size = "XL"`
- b) `SELECT max(B.price)
FROM Cloth AS C, Sells AS B
WHERE C.cid = B.cid AND C.gender = "female"
AND B.sdate = "08/10/2017"`
- c) `(SELECT S.sname, S.zipcode
FROM Store AS S, Cloth AS C, Sells AS B
WHERE S.sid = B.sid AND B.cid = C.cid
AND S.country = "France" AND B.price < 100
AND C.type = "jeans" AND C.gender = "female")
INTERSECT
(SELECT S.sname, S.zipcode
FROM Store AS S, Cloth AS C, Sells AS B
WHERE S.sid = B.sid AND B.cid = C.cid
AND S.country = "France" AND B.price < 100
AND C.type = "jeans" AND C.gender = "male")`
- d) `SELECT C.cid, count(*) AS quantity_sold
FROM Store AS S, Cloth AS C, Sells AS B
WHERE S.sid = B.sid AND B.cid = C.cid
AND S.country = "Germany" AND C.type = 'suit'
GROUP BY C.cid`

Q2)

- a) `SELECT B.brand-name, M.owner-company-name
FROM Brand AS B, Model AS M, Engine AS E
WHERE B.country = "Germany" AND B.brand-name = M.brand-name
AND M.price < 8000 AND M.engine-id = E.engine-id
AND E.horse-power > 170`

- b) `SELECT B.brand-name, M.owner-company-name
FROM Brand AS B, Model AS M, Engine AS E
WHERE B.brand-name = M. brand-name AND M.engine-id = E.engine-id
AND brand-name NOT IN (SELECT brand-name
FROM Brand AS B, Model AS M, Engine AS E
WHERE B.brand-name = M. brand-name
AND M.engine-id = E.engine-id
AND E.fuel-type = "diesel")`
- c) `SELECT B.brand-name
FROM Brand AS B
WHERE B.country = "Germany"
AND exists (SELECT *
FROM Model AS M1, Engine AS E1
WHERE B.brand-name = M1.brand-name
AND M1.engine-id = E1.engine-id
AND B.country = "Germany" AND E1.horse-power > 300)
AND exists (SELECT *
FROM Model AS M2, Engine AS E2
WHERE B.brand-name = M2.brand-name
AND M2.engine-id = E2.engine-id
AND B.country = "Germany" AND E2.fuel-type = "diesel")`
- d) `SELECT B.brand-name, M.model-name
FROM Brand AS B, Model AS M
WHERE B.brand-name = M.brand-name
GROUP BY M.model-name
HAVING count(DISTINCT M.engine-id) > 4`
- e) `SELECT B.brand-name, M.model-name
FROM Brand AS B, Model AS M, Tax as T
WHERE B.brand-name = M.brand-name AND M.tax-level = T.tax-level
AND T.tax-cost BETWEEN 150 AND 300
GROUP BY model-name
HAVING count(DISTINCT engine-id) > 4`
- f) `SELECT avg(M.price)
FROM Brand AS B, Model AS M, Engine AS E
WHERE B.brand-name = M. brand-name AND M.engine-id = E.engine-id
AND B.country = "France" AND E.horse-power = 300,`

- g) `SELECT B.brand-name
FROM Brand AS B, Model AS M
WHERE B.brand-name = M.brand-name
AND (SELECT avg(M.price)
WHERE B.country = "Germany" AND M.sold-amount > 1000) >
all (SELECT avg(N.price)
FROM Model as N, Brand AS C
WHERE C.country = "France")`
- h) `SELECT B.brand-name, B.owner-company-name
FROM Brand AS B, Model AS M1, Engine AS E
WHERE B.brand-name = M1. brand-name AND M1.engine-id = E.engine-id
AND B.country = "France"
AND E.fuel-type = "gasoline"
AND exists (SELECT B.brand-name
FROM Model AS M2,
WHERE B.country = "France"
AND M2.sold-amount < M1.sold-amount)`