

CS 353 Fall 2022
Homework 3 Solutions

Q.1

(a)

```
SELECT M.title, M.year
FROM Movie M, Director D
WHERE D.birthYear > 1982 AND D.country = "Turkey" AND D.name = M.directorName
```

(b)

```
SELECT MS.name
FROM Movie M, StarIn S, MovieStar MS, Director D
WHERE M.genre = "horror" AND M.year > 2012 AND
      M.m-id = S.m-id AND S.s-id = MS.s-id AND MS.gender = "female" AND
      M.directorName = D.name AND D.country = "Turkey"
```

(c)

```
SELECT MS.name, MS.country
FROM Movie M, StarIn S, MovieStar MS
WHERE MS.birthYear > 2002 AND
      MS.s-id = S.s-id AND S.m-id = M.m-id AND
      M.year BETWEEN 2000 AND 2020 AND M.directorName = "Quentin Tarantino"
ORDER BY MS.country ASC
```

(d)

```
SELECT AVG(M.rating)
FROM Movie M, StarIn S, MovieStar MS
WHERE M.genre = "western" AND
      M.m-id = S.m-id AND S.s-id = MS.s-id AND
      MS.name = "John Wayne"
```

(e)

```
SELECT M.directorName
FROM Movie M
WHERE M.year = 2021 AND M.rating > 5.0 AND
GROUP BY M.directorName
HAVING COUNT(*) >= 3
```

(f)

```
WITH Temp AS (
  SELECT M.year, M.country, MAX(M.rating) as max_rating
  FROM Movie M, Director D
  WHERE M.directorName = D.name AND D.birthYear > 1992 AND
        D.country = M.country
  GROUP BY M.year, M.country )
```


(j)

```
WITH Temp AS (  
    SELECT M.directorName, D.country, COUNT(*) cnt  
    FROM Movie M, Director D  
    WHERE M.directorName = D.name AND M.genre = "comedy" AND M.year = 2021  
    GROUP BY M.directorName, D.country )  
WITH Temp2 AS (  
    SELECT T.country, MAX(T.cnt) AS max_cnt  
    FROM Temp T  
    GROUP BY T.country )  
SELECT T.country, T.directorName  
FROM Temp T, Temp2 T2  
WHERE T.country = T2.country AND T.cnt = T2.max_cnt
```

Q.2

(a)

StudentName	ClubName
John	ABC
John	XYZ
Dave	XYZ

(b)

StudentName	ClubName
John	XYZ

(c)

StudentName	ClubName
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(d)

StudentName	ClubName
John	XYZ
Dave	XYZ