

Answer 1.1

- a) There are reports that are filed by employee with postal code 'T3B 1Y7'. For those reports, give a query to produce all information necessary for a customer report: for each report, include cFirst (first name of customer), cLast (last name of customer), cPhone (phone of customer) and cCountry (country of customer).

- b)
- $$J1 \leftarrow \rho_{c(\text{Customer})} \mid X \mid c.\text{SupportRepId}=e.\text{EmployeeId} \quad \rho_e(\text{Employee})$$
- $$S \leftarrow \sigma_{e.\text{PostalCode}='T3B 1Y7'}(J1)$$
- $$P \leftarrow \pi_{c.\text{FirstName}, c.\text{LastName}, c.\text{Phone}, c.\text{Country}}(S)$$
- $$R \leftarrow \rho_{c(c.\text{First}, c.\text{Last}, c.\text{Phone}, c.\text{Country})}(P)$$

Where 'R' is the result of the query.

Answer 1.2

- a) Give a query to produce details of all artist albums whose media type is other than 'MPEG audio file'. The result set should have the following columns: artName (name of the artist), albTitle (title of the album), tName (name of the track) and mType (type of media). The row should be sorted first by the artist name and then by track name and finally by the title name.

- b)
- ```
SELECT a.name as artName,
 alb.title as albTitle,
 t.name as tName,
 mt.name as mType

FROM artist a INNER JOIN album alb
 INNER JOIN track t
 INNER JOIN mediatype mt
 ON t.mediaTypeId=mt.MediaTypeId
 AND t.albumId=alb. albumId
 AND a.ArtistId=alb.ArtistId

WHERE mt.Name <> 'MPEG audio file'

ORDER BY a.name ASC,
 tName ASC,
 alb.title ASC
```