

### Answer 1.1

- a) The query gives the first name, last name, phone and country of the customer who have filed a report with the employees of postal code 'T3B 1Y7'.

$$\begin{aligned} \text{b)} \quad J1 &\leftarrow \rho_c(\text{Customer}) \bowtie_{c.\text{SupportRepId}=e.\text{EmployeeId}} \rho_e(\text{Employee}) \\ S &\leftarrow \sigma_{e.\text{PostalCode}='T3B 1Y7'}(J1) \\ P &\leftarrow \pi_{c.\text{FirstName}, c.\text{LastName}, c.\text{Phone}, c.\text{Country}}(S) \\ R &\leftarrow \rho_c(c.\text{First}, c.\text{Last}, c.\text{Phone}, c.\text{Country})(P) \end{aligned}$$

Where 'R' is the final result of the query.

### Answer 1.2

- a) The query selects artist name, album name, title name and media type name of all medias whose type is anything other than 'MPEG audio file'.

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 m  
INNER JOIN  
mediatype mt  
ON t.mediaTypeId=mt.MediaTypeId)  
ON t.albumId=alb. albumId)  
ON a.ArtistId=alb.ArtistId  
**WHERE**  
mt.Name <> 'MPEG audio file'