Supplementary material : assignment practice

Solution 48

$[SongId, UserId, PlaylistId, Playlist]$

$$songs : \mathbb{F}\ SongIdusers : \mathbb{F}\ UserIdplaylists : PlaylistId \pfun Playlistplaylist Owner : PlaylistId \pfun UserIdpla$$
$$\forall i : \operatorname{dom} playlists \bullet \operatorname{ran} playlists(i) subseteqsongs \operatorname{dom} playlistOwnersubseteq \operatorname{dom} playlists \operatorname{ran} playlistOu$$

Solution 49

$$hated : UserId \pfun \mathbb{F}\ SongIdloved : UserId \pfun \mathbb{F}\ SongId$$
$$\operatorname{dom} hatedsubsetequsers \forall i : \operatorname{dom} hated \bullet hated(i) subseteqsongs \operatorname{dom} lovedsubsetequsers \forall i : \operatorname{dom} loved \bullet$$

Solution 50

(a)

$$abbrev$$

A == users $\setminus \bigcup \operatorname{ran} playlistSubscribers$

(b)

$$abbrev$$

B == { p : $\operatorname{dom} playlistSubscribers \mid \#playlistSubscribers(p) \geq 100$}

(Part c and d require mu operator with complex predicates - tested separately)