

Add duplicate elimination where necessary

a)

$$\pi_{UserID}(\mathbf{Users}) - \pi_{UserID}(\sigma_{(dop+30) \geq today}(\mathbf{Subscription}))$$

b)

$$\pi_{UserID}(\mathbf{Users}) - \delta(\pi_{UserID}(\sigma_{StartDate \leq today}(\mathbf{Events} \bowtie_{Events.EventID=Attendees.EventID} \mathbf{Attendees})))$$

c)

$$\pi_{name}(\mathbf{Users} \bowtie_{Likes.userID=Users.userID} \pi_{userID}(\sigma_{noLikes \geq 5}(\gamma_{userID, COUNT(postID) \rightarrow noLikes}(\mathbf{Likes}))))$$

d)

$$\delta(\pi_{codec}(\sigma_{eventID=1368}(\mathbf{Events}) \bowtie_{Events.place=VP.place} \rho_{VP}(\mathbf{Posts} \bowtie_{Posts.postID=VideoPosts.postID})))$$

e)

$$\delta(\pi_{postID}(\rho_{CPosts}(\sigma_{tag='Crypto'}(\mathbf{Tags})) \bowtie_{CPosts.postID=SPosts.PostID} \rho_{SPosts}(\sigma_{tag='Studying'}(\mathbf{Tags})))) \\ - \pi_{postID}(\sigma_{date > 2023/12/31}(\mathbf{Posts}))$$

