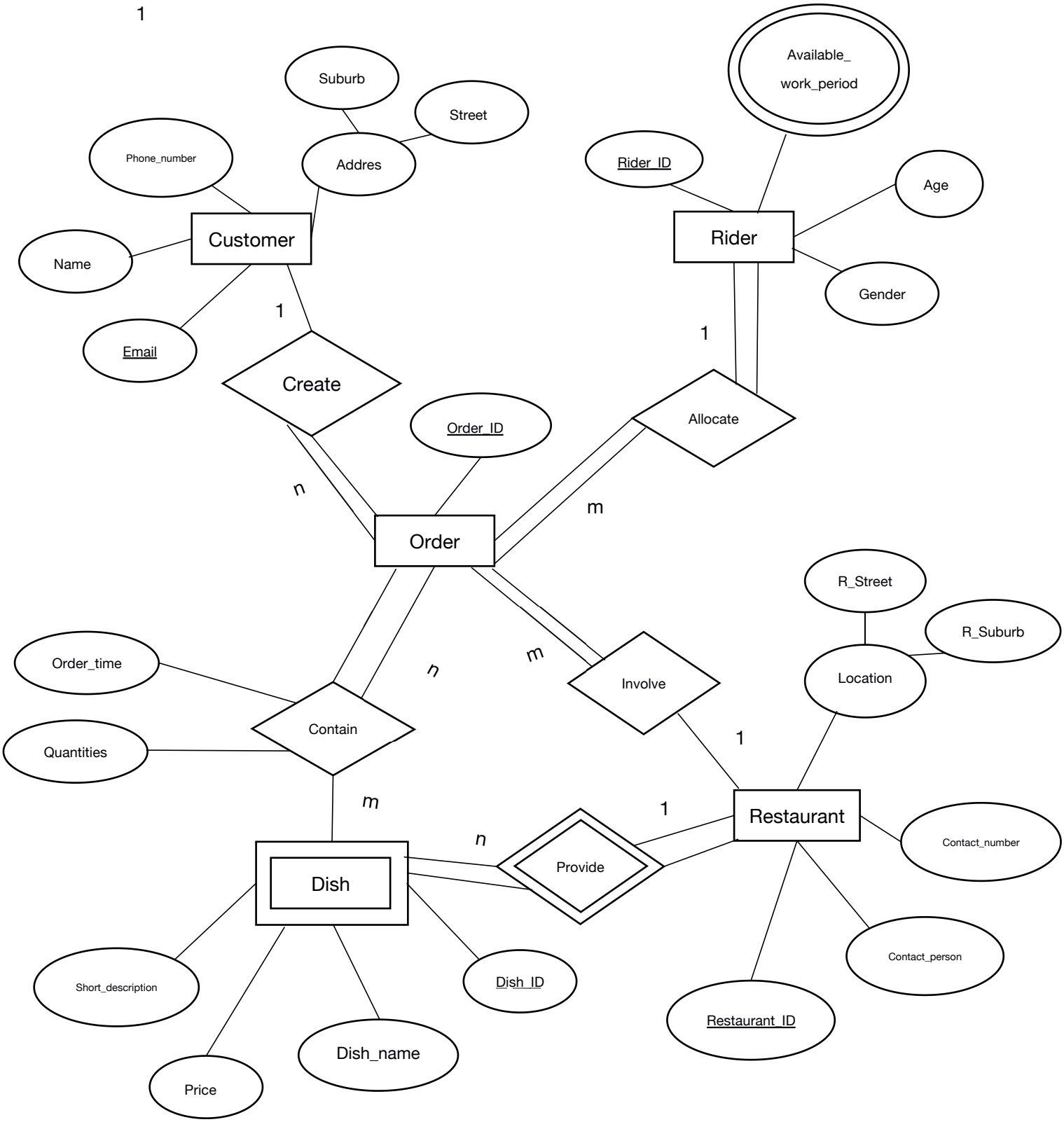
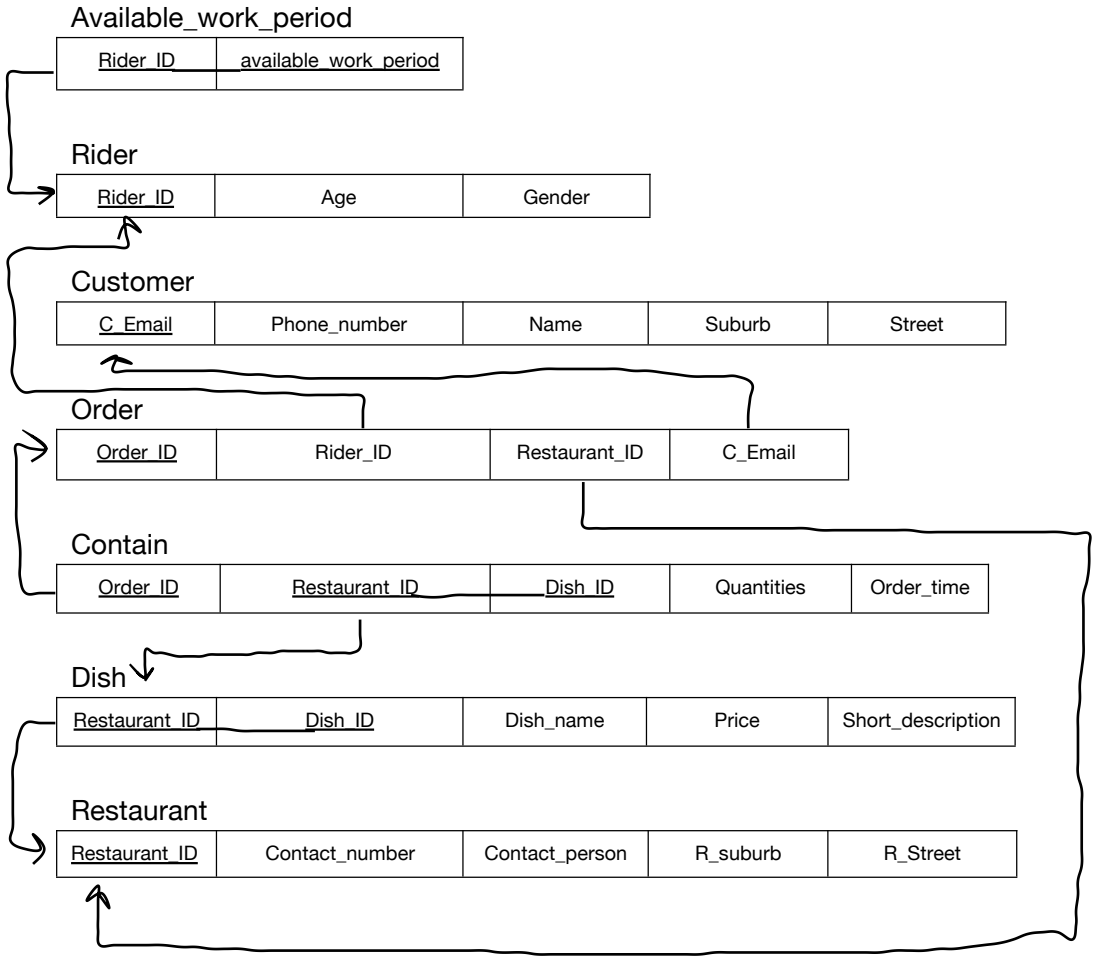
COMP9311 Assignment 1

1



2


Available_work_period
Rider_ID
available_work_period
Rider
Rider_ID
Age
Gender
Customer
C_Email
Phone_number
Name
Suburb
Street
Order
Order_ID
Rider_ID
Restaurant_ID
C_Email
Contain
Order_ID
Restaurant_ID
Dish_ID
Quantities
Order_time
Dish
Restaurant_ID
Dish_ID
Dish_name
Price
Short_description
Restaurant
Restaurant_ID
Contact_number
Contact_person
R_suburb
R_Street

3

1) $\pi_{\{title\}}$(Song$\bowtie$($\sigma_{(genre='pop')}$(GenreOfSong))$\bowtie$SongCreating$\bowtie$ ($\sigma_{(name='Taylor\ Swift')}$(Artist)))

2) $\pi_{\{title\}}$(Song$\bowtie$SongCreating$\bowtie$($\sigma_{(name='Taylor\ Swift'\ OR\ name='Ed\ Sheeran')}$(Artist)))

3) A ← $\pi_{\{name\}}$(($\sigma_{(gender='female')}$(Artist))$\bowtie$JoinIn$\bowtie$ ($\sigma_{(name='Universal\ Music\ Group')}$(Company)))

B ← $\pi_{\{name\}}$(Artist$\bowtie$SongCreating$\bowtie$($\sigma_{(genre='pop')}$(GenreOfSong)))

C ← $\pi_{\{name\}}$(Artist$\bowtie$SongCreating$\bowtie$($\sigma_{(genre='hip-hop')}$(GenreOfSong)))

D ← A$\cap$(B - C)

4) A ← $\pi_{\{name\}}$(Artist$\bowtie$((SongCreating$\bowtie$GenreOfSong) $\div\pi_{\{genre\}}$ (GenreOfSong)))

B ← $\pi_{\{name\}}$(Artist$\bowtie$($\pi_{\{aID\}}$(($\pi_{\{sID\}}$(($\pi_{\{aID\}}$($\sigma_{(name='Taylor\ Swift')}$(Artist))) $\bowtie$SongCreating))$\bowtie$SongCreating)))

C ← A$\cap$(B - 'Taylor Swift')