**The entity relation diagram:**

1. Hotel ( H\_ID, H\_Name , H\_Loc , H\_Policy , H\_Email , H\_PhoneNum , H\_Website )

FD: H\_ID -> (H\_Name , H\_Loc , H\_Policy , H\_Email , H\_PhoneNum , H\_Website )

1NF: all attributes are atomic

3NF: no transtive dependency

BCNF: H\_ID is a superkey

Normal form: BCNF

1. Airline ( Air\_ID, Air\_Name , Air\_Policy , Air\_Email , Air\_PhoneNum , Air\_Website )

FD: Air\_ID -> (Air\_Name , Air\_Policy , Air\_Email , Air\_PhoneNum , Air\_Website )

1NF: all attributes are atomic

3NF: no transtive dependency

BCNF: Air\_ID is a superkey

Normal form: BCNF

1. Flight ( F\_ID , F\_Num , Dept\_Loc , Dept\_date , dept\_Time , Arr\_loc , Arr\_Date , Arr\_Time , Air\_ID )

FD: F\_ID -> (F\_Num , Dept\_Loc , Dept\_date , dept\_Time , Arr\_loc , Arr\_Date , Arr\_Time , Air\_ID )

1NF: all attributes are atomic

3NF: no transtive dependency

BCNF: F\_ID is a superkey

Normal form: BCNF

1. Car\_Comp ( Comp\_ID, Comp\_Name , Pichup\_Loc , Dropoff\_Loc , Comp\_Policy , Comp\_Email , Comp\_PhoneNum , Comp\_Website )

FD: Comp\_ID -> (Comp\_Name , Pichup\_Loc , Dropoff\_Loc , Comp\_Policy , Comp\_Email , Comp\_PhoneNum , Comp\_Website )

1NF: all attributes are atomic

3NF: no transtive dependency

BCNF: Comp\_ID is a superkey

Normal form: BCNF

1. Order (Ord\_ID, Booking\_Status , Products , SalesDept\_Empl , Cust\_Pref , Ord\_Date , Ord\_App , Cust\_ID)

FD: Ord\_ID -> (Booking\_Status , Products , SalesDept\_Empl , Cust\_Pref , Ord\_Date , Ord\_App , Cust\_ID)

1NF: all attributes are atomic

3NF: no transtive dependency

BCNF: Ord\_ID is a superkey

Normal form: BCNF

1. Customer (Cust\_ID , Cust\_Name , Cust\_PhoneNum , Cust\_Email , Cust\_Address , nationality , Bank\_Acc , Date\_Birth , Credit\_Worthiness )

FD: Cust\_ID -> (Cust\_Name , Cust\_PhoneNum , Cust\_Email , Cust\_Address , nationality , Bank\_Acc , Date\_Birth , Credit\_Worthiness )

1NF: all attributes are atomic

3NF: no transtive dependency

BCNF: Cust\_ID is a superkey

Normal form: BCNF

**The weak entities:**

1. Room (H\_ID , Room\_ID , R\_Number , R\_Type , R\_Price , R\_availability , R\_Ameneties)

FD: H\_ID , Room\_ID->( R\_Number , R\_Type , R\_Price , R\_availability , R\_Ameneties)

1NF: all attributes are atomic

3NF: no transtive dependency

BCNF: H\_ID , Room\_ID is composite superkey

1. Seat (F\_ID , Seat\_ID , S\_Number , S\_Pref , S\_Price , S\_Availability )

FD: F\_ID ,Seat\_ID -> (S\_Number , S\_Pref , S\_Price , S\_Availability )

1NF: all attributes are atomic

3NF: no transtive dependency

BCNF: F\_ID, Seat\_ID is a superkey

1. Car ( Comp\_ID , Car\_ID , License\_Num , Model , Make , C\_Type , C\_Year , Trans\_Type , Num\_Seats , Features , Fuel\_Type , Rental\_Price , Cust\_ID )

FD: Comp\_ID , Car\_ID -> (License\_Num , Model , Make , C\_Type , C\_Year , Trans\_Type , Num\_Seats , Features , Fuel\_Type , Rental\_Price , Cust\_ID )

1NF: all attributes are atomic

3NF: no transtive dependency

BCNF: Comp\_ID, Car\_ID is a superkey

1. Payment (Ord\_ID , Pay\_RefNum , Paid\_Amount , Status , Discount , Conditions )

FD: Ord\_ID -> (Pay\_RefNum , Paid\_Amount , Status , Discount , Conditions )

1NF: all attributes are atomic

3NF: no transtive dependency

BCNF: Ord\_ID is a superkey

Normal form: BCNF