1) Given that brief and incomplete description of operations for RC\_ Models Company, write entities, attributes and all applicable business rules to establish relationships. Write the Entities/attributes in the format below.

Customer (Cust\_Id,Cust\_Name……..) Do not spend too much time on attributes now.

Entities:

Customer(P\_Code, **Cust\_Id**,Cust\_Name, Cust\_Payment, Prospect\_Id

Product(**P\_Code**, scale, types, availability

Decals(P\_code, Decal\_code, scale

Orders(Order\_id, back\_order(y/n), payment\_success(y/n)

Invoice(Cust\_Id, Order\_Id, **Inv\_Num**, Inv\_Charge\_TYPE, Inv\_Shipping

Vendor(**Vendor\_Id**,

Inventory(P\_Code, **Inven\_Num**, stocked\_date

Promotion(**Promo\_Id**, Cust\_Id,

Line(**Line\_number**, Inv\_Num, Promo\_Id

Prospects(Prospect\_Id, Cust\_Id, “Prod\_Info” (y/n),

2) Write Business Rules for the relationships : Use the following three business rules as examples, writing the business rules for relationships in the same format. Requirements/rules that don’t specific entities, attributes, relationships, constraints should be written separately.

a) A customer may generate many invoices.

b) Each invoice is generated by only one customer.

c) Some customers have not (yet) generated an invoice.

d) Each vendor can have multiple products, each product can have only one vendor assigned.

e) Each Customer can have multiple promotions, each promotions can be assigned to multiple customers.

f) Each customer must have at least one invoice, Each invoice must have only one customer assigned to.

g) Each invoice must have at least one line item, each one line item can have only one invoice.

h) Each line item must have at least one product, each product can be assigned to multiple lines.

3) Document any assumptions you need to make in a section called assumptions

4) Create a draft ER model in<https://www.drawio.com/> . Dont worry about filling in all attributes. Just entities and relationships. This is a draft, you will work on it

<https://drive.google.com/file/d/1gn0T4HxBCV3GG2PoD2z_VEorXO_DmPVu/view?usp=drive_link>

5) submit one document PDF and one ER model link as a team, Write names of team members present on PDF document

Submit at <https://canvas.illinois.edu/courses/60366/assignments/1440586>