



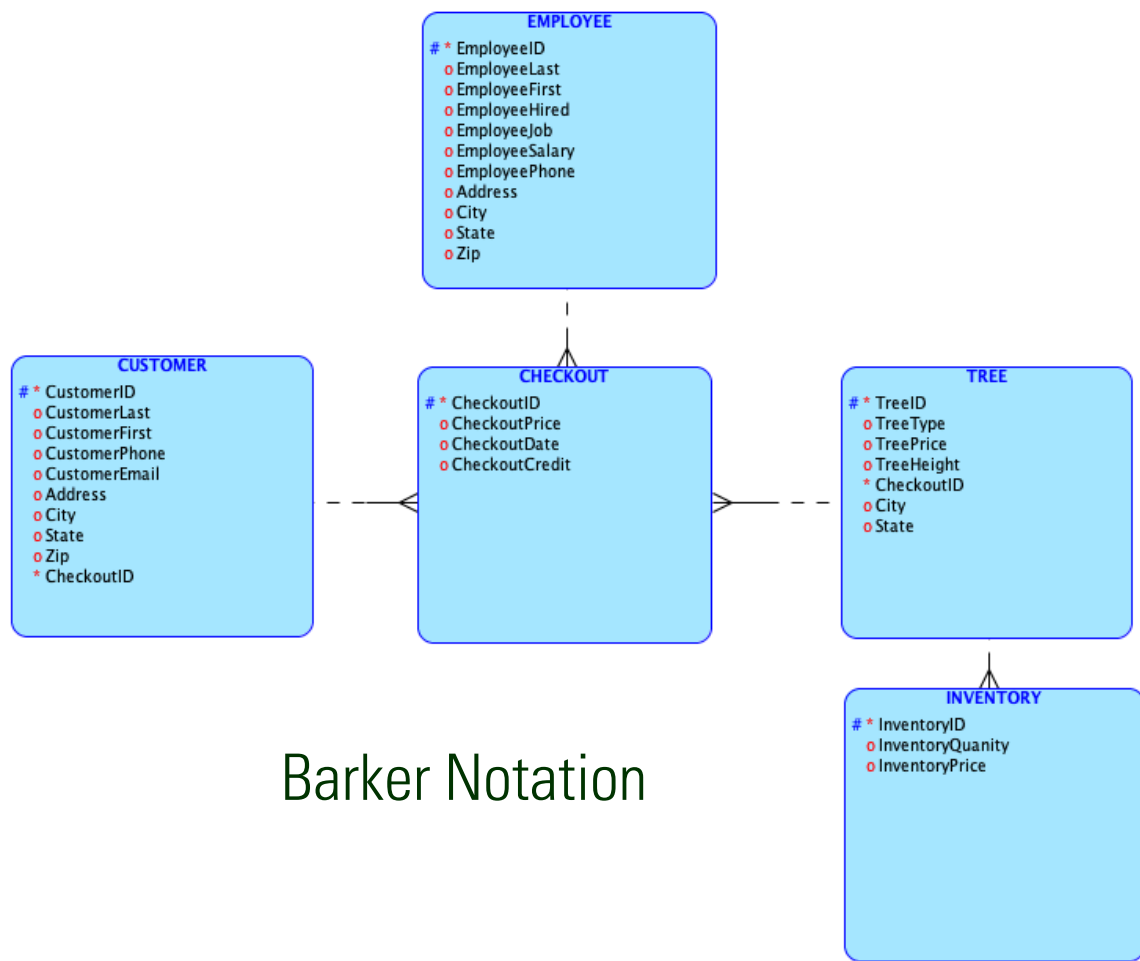
# CHRISTMAS TREE FARM DATABASE

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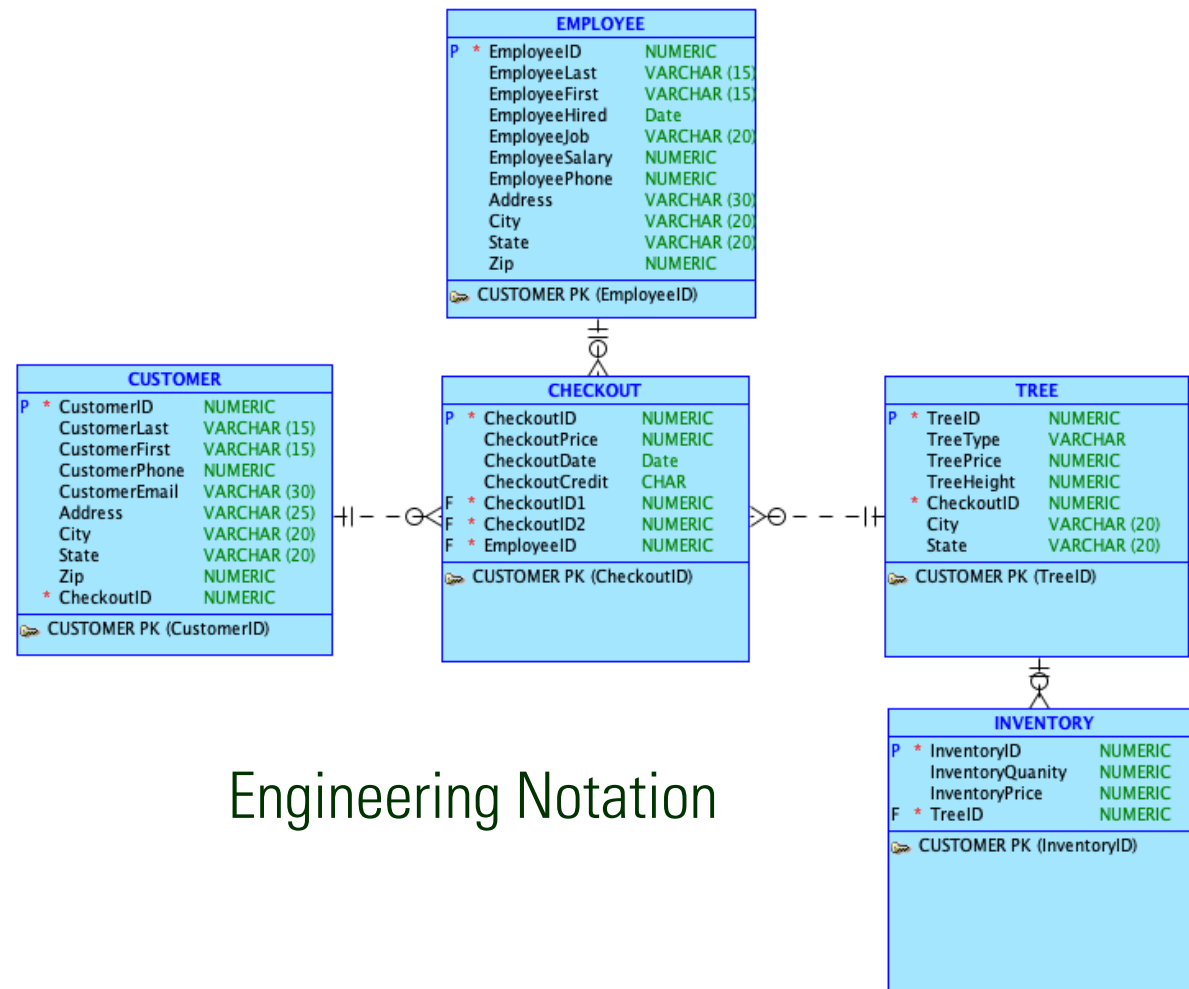


# PROJECT DESCRIPTION

The N & N Christmas Tree Farm wants a database to display each customer they have had. They also want a reference guide for the types of trees they have. The database should also display each checkout between the customer and the type of tree purchase. The checkout will also show which employee made the sale. They also want to display the employees they have. Lastly, the database to track the inventory of which trees are in stock.



Barker Notation



Engineering Notation

# E-R DIAGRAM

# RELATIONAL SCHEMA

Normalized Relational Schema:

customer (**cid**, clast, cfirst, cphone, cemail, cAddress, cCity, cState, cZip)

tree (**tid**, ttype, tCost, theight, tcity, tstate)

employee (**eid**, elast, efirst, ehired, ejob, salary, ephone, eaddress, ecity, estate, ezip)

inventory (**inventoryID**, inventoryQuantity, inventoryPrice, *tid*)

checkout (**chid**, chpaid, chdate, chCredit, *eid*, *tid*, *cid*)

Note: chCreditCash is a check condition

# SQL STATEMENT

Displays the date of the checkout, type of tree, price of tree, and inventory quantity trees based on what type of tree was checked out. The type of tree we are searching for is White Pine.

```
SELECT chdate AS "Date",  
ttype AS "Tree Type" ,  
chpaid AS "Paid",  
inventoryQuantity AS "Inventory Quantity"  
FROM checkout, inventory, tree  
WHERE tree.tid = checkout.tid  
AND tree.tid = inventory.tid  
AND ttype ='White Pine';
```

Date	Tree Type	Paid	Inventory Quantity
12-DEC-20	White Pine	35	45
19-DEC-20	White Pine	35	45

# LESSONS LEARNED

Some constraint specification are not allowed at certain places of the code

## Before

```
CREATE TABLE checkout(  
  chid NUMBER(3) CONSTRAINT checkout_chid_pk PRIMARY KEY,  
  chpaid NUMBER(4),  
  chCreditCash CHAR(1) CONSTRAINT checkout_chCreditCash_cc CHECK (chCreditCash IN ('Y', 'N')),  
  chdate DATE,  
  tid NUMBER(3) CONSTRAINT checkout_tid FOREIGN KEY (tid)  
  REFERENCES tree(tid),  
  cid NUMBER(5) CONSTRAINT checkout_eid FOREIGN KEY (eid)  
  REFERENCES employee(eid),  
  eid NUMBER(3) CONSTRAINT checkout_cid FOREIGN KEY (cid)  
  REFERENCES customer(cid)  
);
```

## After

```
CREATE TABLE checkout(  
  chid NUMBER(3) CONSTRAINT checkout_chid_pk PRIMARY KEY,  
  chpaid NUMBER(4),  
  chCreditCash CHAR(1) CONSTRAINT checkout_chCreditCash_cc CHECK (chCreditCash IN ('Y', 'N')),  
  chdate DATE,  
  tid NUMBER(3),  
  cid NUMBER(5),  
  eid NUMBER(3),  
  
  CONSTRAINT checkout_tid FOREIGN KEY (tid) REFERENCES tree(tid),  
  CONSTRAINT checkout_cid FOREIGN KEY (cid) REFERENCES customer(cid),  
  CONSTRAINT checkout_eid FOREIGN KEY (eid) REFERENCES employee(eid)  
);
```

### Error you get with the Before Code:

```
Error report -  
ORA-02253: constraint specification not allowed here  
02253. 00000 - "constraint specification not allowed here"  
*Cause:      Constraint specification is not allowed here in the statement.  
*Action:     Remove the constraint specification from the statement.
```



# SQL

## QUESTION

WHERE CAN YOU PUT CONSTRAINTS WHEN YOU  
CREATE A TABLE?