

## Entities

*contract*(contract\_id, cus\_id, date, sale\_amount, pay\_schedule)  
*customer*(cus\_id, contact\_person, contact\_email)  
*factory*(fac\_id, fac\_name, address, zip\_code, phone, manager)  
*job*(job\_code, pos\_code, emp\_mode, {required\_skills}, pay\_rate, pay\_type, company, cate\_code)  
*material*(m\_code, m\_name, quantity, unit, min\_level)  
*person*(per\_id, last\_name, first\_name, street\_name, unit\_number, street\_number, city, state, zip\_code, email, gender, phone)  
*product*(p\_code, p\_name, description, quantity, unit, avg\_cost)  
*position*(pos\_code, title, description, pay\_range\_high, pay\_range\_low)  
*purchase*(purchase\_num, sup\_id, sup\_order\_num, book\_date, pay\_date, note)  
*skill*(sk\_code, title, description, level)  
*supplier*(sup\_id, website, email)

## Relationships

*available*(pos\_code, job\_code)  
*con\_includes*(contract\_id, p\_code)  
*cust\_purchases*(comp\_id, contract\_id)  
*employs*(fac\_id, per\_id, salary)  
*has\_skill*(per\_id, sk\_code)  
*line\_item*(fac\_id, contract\_id, p\_code, quantity)  
*made\_with*(p\_code, m\_code)  
*makes*(fac\_id, p\_code)  
*orders\_from*(comp\_id, fac\_id)  
*put\_line\_item*(purchase\_num, m\_code, quantity)  
*required\_by\_job*(sk\_code, job\_code)  
*required\_by\_pos*(sk\_code, pos\_code)  
*sup\_purchases*(purchase\_num, comp\_id)  
*supplied\_by*(m\_code, comp\_id)  
*works*(per\_id, job\_code, start\_date, end\_date)