

Team Project - Group #1, Checkpoint #1

Point Of Sale System

- Details of the mini-world:

- Part of a STORE environment
 - Employees
 - Products
 - Customers
 - Transactions
 - Supervisors
 - Type of Product
 - Vendors

- Entities and their properties:

- Employees [EmployeeID, EmpName, PayRate, WeeklyHoursWorked, StartDate, ActiveEmployee, EndDate, email, phoneNum, empDOB]
- Products [Product ID, Price, Vendor, Category, prodAmount, InStock, Description, ProductName]
- Customers [CustomerID, CustName, custEmail, custDOB]
- Transactions [EmployeeID, CustomerID, ProductID, Price, TransactionID, EmpName, CustName, ProductName]
- Supervisors [SupervisorID, SupName]
- Categories [CategoryName, CategoryID]
- Vendors [VendorName, VendorID, Location, OrderStatus]

- Relationships:

- Employee ← many to one → Supervisor
- Product ← one to one → Vendor
- Product ← one to one → Category
- Transaction ← one to one → Employees
- Transaction ← many to one → Customers

- Constraints:

- If Customer DOB is less than today's date - 21 years, and product is alcohol/tobacco, do not allow transaction
- Cannot be NULL: Primary Keys, Price, StartDate, PayRate, Emp/Cust DOB, ProductName, SupName, VendorName, CategoryName, Time
- Price must be less than \$1000.00 (or max amount) and more than \$0.00
- DOB of employees can only be in past 16-100 years
- prodAmount must be ≥ 0
- PayRate must be $\geq \text{MinWage}$

- Conceptual Schema

Employee	Products	Customers	Transactions	Supervisor	Category	Vendor
<u>EmployeeID</u>	<u>ProductID</u>	<u>CustomerID</u>	<u>TransactionID</u>	<u>SupervisorID</u>	<u>CategoryID</u>	<u>VendorID</u>
EmpName	Price	CustName	CustomerID	SupName	CategoryName	VendorName
PayRate	Vendor	CustEmail	ProductID			Location
WeeklyHours Worked	Category	CustDOB	Price			OrderStatus
StartDate	Amount		EmployeeID			
EndDate	InStock		EmpName			
ActiveEmployee	Description		CustName			
Email	ProductName		Time			
PhoneNum						
EmpDOB						