# CPS510 Assignment 7: 3NF Normalization

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**Employee Table (EmpID, Username, Password, Type)**

- EmpID - primary key
- Username - FD on EmpID
- Password - FD on EmpID
- Type - FD on EmpID

No partial dependencies, no transitive dependencies: ∴ Employee Table is 3NF

**Manager Table(EmpID, MNGR_EMPID, Name, Salary, HoursPerWeek)**

- EmpID - foreign key
- MNGR_EMPID - primary key
- Name - FD on MNGR_EMPID
- Salary - FD on MNGR_EMPID
- HoursPerWeek - FD on Empid

No partial dependencies, no transitive dependencies: ∴ Manager Table is 3NF

**Worker Table (EmpID, WRKR_EMPID, Name, Wage, HoursPerWeek)**

- EmpID - foreign key
- WRKR_EMPID - primary key
- Name - FD on WRKR_EMPID
- HoursPerWeek - FD on WRKR_EMPID

No partial dependencies, no transitive dependencies: ∴ Worker Table is 3NF

**Customer Table (CustomerID, WRKR_EMPID, PhoneNum, Name)**

- CustomerID - primary key
- WRKR_EMPID - foreign key
- PhoneNum - FD on CustomerID
- Name - FD on CustomerID

No partial dependencies, no transitive dependencies: ∴ Customer Table is 3NF

**Transaction Table (CCNumber, Cust_CustomerID, Cust_Worker_EmpID)**

- CCNumber - primary key
- Cust_CustomerId - foreign key
- Cust_Worker_EmpID - foreign key

No partial dependencies, no transitive dependencies: ∴ Transaction Table is 3NF

**Supplier Table (supplierID, MNGR_empID, supplierName, itemType)**

- supplierID - primary key
- MNGR_empID - foreign key
- supplierName - FD on supplierID
- itemType - FD on supplierID

No partial dependencies

itemType —-> supplierName —-> supplierID (Transitive Dependecy)

∴ Supplier Table is not in 3NF and must be decomposed