

Functional Dependencies

Blood Donor (BloodID, BloodType, FirstName, LastName, DOB, sex, dateOfdonation, address, phone)

FDs: BloodID → FirstName, LastName, DOB, sex, dateOfdonation, address, phone

Description: BloodID determines FirstName, LastName, DOB, sex, dateOfdonation, address, phone

Example: 1 -> Megan, Spiers, 12/10/1998, F, 04/30/2020, VCU Rd, 555-555-5555

Normalization Level: BCNF

Recipient (ReceiptientID, FirstName, LastName, DOB, sex, BloodType, DateOfReq)

FDs: ReceiptientID → FirstName, LastName, DOB, sex, BloodType, DateOfReq

Description: ReceiptientID determines FirstName, LastName, DOB, sex, BloodType, and DateOfReq

Example: 47 -> Megan, Spiers, 12/10/1998, F, O+, 04/30/2020

Normalization Level: BCNF

Blood (BloodBagNo, Hemoglobin content, BloodAmount, BloodType, Cost)

FDs: BloodBagNo → BloodBagNo, Hemoglobin content, BloodAmount, BloodType, Cost

Description: BloodBagNo determines Hemoglobin content, BloodAmount, BloodType, and Cost

Example: 17 -> 120 grams, 200ml, O-, \$20

Normalization Level: BCNF

Blood Inventory (BloodNo, BloodType, Description, Order, Quantity)

FDs: BloodNo → BloodNo, BloodType, Description, Order, Quantity

Description: BloodNo determines BloodType, Description, Order, and Quantity

Example: 21 -> AB, "No Discrepancies", 1, 3

Normalization Level: BCNF

Employee (EmpID, FirstName, LastName, DOB, Sex, Phone, Address, Salary)

FDs: EmpID → EmpID, FirstName, LastName, DOB, Sex, Phone, Address, Salary

Description: EmpID determines FirstName, LastName, DOB, Sex, Phone, Address, Salary

Example: 360 -> Megan, Spiers, 12/10/1998, F, 555-555-5555, VCU Rd, \$55555

Normalization Level: BCNF