

## User relation -

*“For every FD  $A \rightarrow B$  that holds on relation  $R$ ,  $A$  is its key.”* is in BCNF form.

FDs :

For the table **Donor-**

$\{d\_id\} \rightarrow \{blood\_group, d\_name, d\_phone\_no, d\_email, d\_DOB, d\_sex, d\_pincode\}$

Key :  $\{d\_id\}$

All FDs confirms to BCNF requirement, therefore relation is in BCNF form

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For the table **Blood Bank Branch-**

$\{bid\} \rightarrow \{b\_name, locality, br\_phone\_no, br\_email, mgr\_id, br\_pin\}$

Key :  $\{bid\}$

All FDs confirms to BCNF requirement, therefore relation is in BCNF form

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### For the table **employee-**

$\{e\_id\} \rightarrow \{e\_name, Address, e\_ph\_no, e\_email, e\_salary, br\_id, e\_sex\}$

Key :  $\{e\_id\}$

All FDs confirms to BCNF requirement, therefore relation is in BCNF form

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### For the table **Hospital-**

$\{h\_id\} \rightarrow \{h\_name, h\_locality, h\_phone\_no, h\_email, h\_city\_id\}$

Key :  $\{h\_id\}$

All FDs confirms to BCNF requirement, therefore relation is in BCNF form

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### For the table **Requests**

$\{req\_id\} \rightarrow \{b\_id, h\_id, h\_req\_date, req\_bgroup, h\_req\_qty, amt\_paid\}$

Key :  $\{req\_id\}$

All FDs confirms to BCNF requirement, therefore relation is in BCNF form

### For the table **Blood\_Donation-**

$\{donation\_id\} \rightarrow \{br\_id, d\_id, qty\_donated, e\_id, donation\_date\}$

Key :  $\{donation\_id\}$

All FDs confirms to BCNF requirement, therefore relation is in BCNF form

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### For the table **Patient**

$\{p\_id\} \rightarrow \{p\_pincode, p\_name, qty\_required, blood\_gp, h\_id, reqmnt\_date, p\_phone\_no, p\_email, p\_DOB, p\_sex\}$

Key :  $\{p\_id\}$

All FDs confirms to BCNF requirement, therefore relation is in BCNF form

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For the table **City**

$\{\text{pincode}\} \rightarrow \{\text{cityname}\}$

Key :  $\{\text{pincode}\}$

All FDs confirms to BCNF requirement, therefore relation is in BCNF form

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For the table **Blood Stock**

$\{\text{bstock\_id}, \text{br\_id}\} \rightarrow \{\text{blood\_group}, \text{qty}\}$

Key :  $\{\text{bstock\_id}, \text{br\_id}\}$

All FDs confirms to BCNF requirement, therefore relation is in BCNF form