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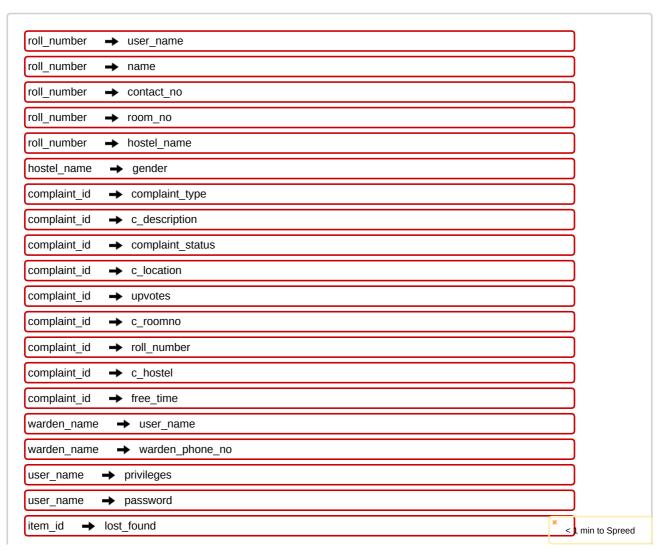


- **EDIT ATTRIBUTES**
- LEARNING RESOURCES
- **()** LOAD EXAMPLE

Functions

- ☑ NORMALIZE TO 2NF

Find Minimal Cover



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```
item_id
              user_name
item id
              item title
item_id
              item_description
item_id
              If_date
item_id
              If_location
item_id
              item_photo
item_id
              item_contact_person
item id
              item contact email
item_id
              If_status
```

Show Steps

```
Step 1: Rewrite the FD into those with only one attribute on RHS. We obtain:
roll_number
               → user_name
 roll number
               → name
 roll_number
               → gender
 roll_number
                   contact_no
 roll_number
                  room_no
 roll_number
                   hostel_name
 hostel_name
                    gender
                →
 complaint_id
                →
                   user_name
 complaint_id
                    complaint_type
 complaint_id
                    c_description
 complaint_id
                    complaint_status
 complaint_id
                    c_location
 complaint_id
                   upvotes
 complaint_id
                    c_roomno
 complaint_id
                    roll_number
 complaint_id
                   c_hostel
                   free_time
 complaint_id
 warden name
                     user_name
 warden_name
                     warden_phone_no
 user_name
                  privileges
                  password
 user_name
 item_id
               lost_found
 item id
              user_name
 item_id
               item_title
 item_id
               item_description
               If_date
 item_id
                                                                                                    min to Spreed
```

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```
item_id
               If_location
 item id
               item photo
item_id
               item_contact_person
 item_id
               item_contact_email
item_id
               If_status
Step 2: Remove trivial FDs (those where the RHS is also in the LHS). We obtain:
roll_number
               → user_name
 roll number
               → name
roll_number
                   gender
 roll_number
                   contact_no
roll_number
               → room_no
                   hostel_name
 roll_number
 hostel name
                \rightarrow
                    gender
 complaint_id
                →
                    user_name
 complaint_id
                    complaint_type
 complaint_id
                    c_description
 complaint_id
                    complaint_status
                \rightarrow
 complaint_id
                → c_location
 complaint_id
                    upvotes
 complaint_id
                   c_roomno
 complaint id
                    roll_number
 complaint_id
                →
                   c_hostel
 complaint_id
                → free_time
 warden_name
                     user_name
 warden name
                  → warden phone no
 user_name
                  privileges
                   password
 user_name
 item_id
               lost_found
 item id
               user_name
 item_id
               item_title
item_id
               item_description
item_id
               If_date
 item_id
               If_location
item_id
               item_photo
 item id
               item contact person
item_id
               item_contact_email
               lf_status
 item id
Step 3: Minimize LHS of each FD. We obtain:
roll_number
               → user_name
roll_number
               → name
                                                                                                      < 1 min to Spreed
roll number
               → gender
```

roll_number → contact_no	
roll_number → room_no	
roll_number → hostel_name	
hostel_name → gender	
complaint_id → user_name	
complaint_id → complaint_type	
complaint_id → c_description	
complaint_id → complaint_status	
complaint_id → c_location	
complaint_id → upvotes	
complaint_id → c_roomno	
complaint_id → roll_number	
complaint_id → c_hostel	
complaint_id → free_time	
warden_name → user_name	
warden_name → warden_phone_no	
user_name → privileges	
user_name → password	
item_id → lost_found	
item_id → user_name	
item_id → item_title	
item_id → item_description	
item_id → If_date	
item_id → If_location	
item_id → item_photo	
item_id → item_contact_person	
item_id → item_contact_email	
item_id → If_status	
Step 4: Remove redundant FDs (those that are implied by others). We obtain:	
roll_number user_name	
roll_number → name	
roll_number → contact_no	
roll_number → room_no	
roll_number → hostel_name	
hostel_name → gender	
complaint_id → complaint_type	
complaint_id → c_description	
complaint_id → complaint_status	
complaint_id → c_location	
complaint_id → upvotes	

	Home
complaint_id	→ c_roomno
complaint_id	→ roll_number
complaint_id	→ c_hostel
complaint_id	→ free_time
warden_name	→ user_name
warden_name	→ warden_phone_no
user_name	→ privileges
user_name	→ password
item_id →	lost_found
item_id →	user_name
item_id →	item_title
item_id →	item_description
item_id →	If_date
item_id →	If_location
item_id →	item_photo
item_id →	item_contact_person
item_id →	item_contact_email
item_id →	If_status

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