

# SQL Queries Implemented

-Aayushi Malik (2015003)

-Shaan Chopra (2015090)

Below is the list of queries implemented in the project. All the queries mentioned in the proposal have been implemented.

## Add/Update a tuple in the student database

- *Add*

In: Class Register\_form (Inner class in SystemHAS.java)

Queries: 1. insert into student values(sid,sname,sex,email,address,stream)  
2. insert into student\_number values(sid,phone\_number)  
3. insert into student\_password values(sid,password)

- *Update*

In: Class StudentLoggedIn

Queries: 1. update student set sname=new\_name where sid=id  
2. update student set sex=new\_sex where sid=id  
3. update student set email=new\_email where sid=id  
4. update student set address=new\_address where sid=id  
5. update student set stream=new\_stream where sid=id  
6. update student\_number set phone\_number=new\_phone\_number where

sid=id

## Add/delete an application from database

- *Add*

In: Class StudentLoggedIn

Queries: insert into application values(appid, sid, roomid, "pending")

- *Delete*

In: Class StudentLoggedIn

Queries: delete from application where sid = id

## Check availability of rooms in a hostel

In: Class FilterPanel

Queries: select roomid, hid, floor, type, price, description, status from room natural join room\_type where status = "vacant"

## Filter rooms in a hostel according to availability, type, floor

In: Class FilterPanel

Queries: 1. select roomid, hid, floor, type, price,description,status from room natural join room\_type where status="vacant"

2. select roomid, hid, floor, type, price, description, status from room natural

join

room\_type where room.type=input  
 3. select roomid, hid, floor, type, price, description, status from room natural  
 join  
 room\_type where room.floor=input

### **View details of a particular room**

In: Class DetailsPanel

Queries: 1. select hid, floor, type, description, status from room where roomid = input  
 2. select hname from hostel where hid = (select hid from room where roomid = input)  
 3. select price from room\_type where type = (select type from room where roomid = input)

### **Check status of hostel application**

In: Class StudentLoggedIn

Queries: 1. select appid, roomid, response, hid from application natural join room where sid = input  
 2. select hname from hostel where hid in (select hid from room where roomid = (select roomid from application natural join room where sid = input))

### **Approve/ Reject an application for a room and accordingly update the database**

In: Class RespondPanel

Queries: 1. update application set response = input1 where appid = input2  
 2. select roomid,count from room natural join application where appid = input  
 3. update room set count = (count+1) where roomid = input  
 4. select count,type from room where roomid = input  
 5. update room set status = "Occupied" where roomid = input

### **Complex Queries:**

1. select distinct messid from room natural join room\_type natural join mess natural join application natural join hostel where hname = input1 and type = input2
2. select distinct roomid from room natural join room\_type natural join application natural join student where (response = "pending" or response = "rejected") and floor = input1 and (sex = input2)
3. select count(sid) from student natural join application natural join room natural join room\_type natural join mess where (response = "pending" or response = "rejected") and messid = input
4. select t1.hname from (select hid, hname, type, count(\*) as value from hostel natural join room where status = "Occupied" group by hid, type) as t1, (select hid, hname, type, count(\*) as value from hostel natural join room where status = "Occupied" group by hid,

type) as t2 where t1.hid = t2.hid and t1.type = input1 and t2.type = input2 and t1.value > t2.value;

5. select sname, response from student natural join application natural join room natural join mess where (messid in (select messid from (select count(roomid) as total, messid from room natural join mess group by floor, messid) as t1, (select max(total) as max from (select count(roomid) as total, messid from room natural join mess group by floor, messid) as t3) as t2 where t1.total = t2.max and response = "accepted" and hid = input))