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"Jnana Sangama", Belgaum-590018

A Report On

"HOSTEL MANAGEMENT DATABASE"

Submitted by

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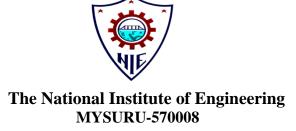
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CERTIFICATE

Certifies that the project work titled **"HOSTEL MANAGEMENTDATABASE"** is a work carried out by **SHRIVATSA M JOSHI(4NI19IS095),SREEVATSA S K(4NI19IS100),SUJAY MUDGAL (4NI19IS101)**in partial fulfilment for the requirements of the fourth semester BE in Information Science & Engineering prescribed by The National Institute of Engineering, Autonomous Institution under Visvesvaraya Technological University, Belagavi. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated. The Project report has been approved as it satisfies the academic requirements in respect of the project work prescribed for the fourth semester in Data Base Laboratory.

Signature of Guides   Signature of HOD   Signature of Principal

1.

2.

Name of examiner   Signature with date

1.

2.

ABSTRACT

'Hostel management database' provides a detailed view of how the students records, room allocation and courses. The hostel management system also equipped with some special features for helping hostel admin.Each record in the system has unique identity and it can be searched by an unique id. Use of this project in the hostel reduce the paper work in the hostel and also improves to the students of the hostel and admin.

Hostel management database is a desktop application for managing hostel records. *Hostel management database* helps hostel admin in managing records of the hostel in an efficient manner. These projects manage records of the students, hostel rooms and other things related to the hostel.
The manual way of hostel record management it is very difficult to find the record of all students their USN and about them and the information of about students who are accessing the internet with their ip address.

The main objective of developing Hostel management database is to save money and time. The proposed system generates following reports to help management of the hostel in decision making.

Use of this project in the hostel reduce the paper work in the hostel and also helps us to store the information about students in the hostel and rooms .

ACKNOWLEDGEMENT

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1. INTRODUCTION

A hostel is an establishment which provides inexpensive food and lodging for a specific group of people, such as students, workers. **Hostels** are types of residences that provide tenants with common spaces to meet up. Thus, the **students** will live in a single or shared room, and will be able to take advantage of these common spaces to meet other **students** and carry out their daily activities. In hostel maintaining the students data such as their names and their room no and their Contact numbers. The main aim of this system is to develop that will conveying ever lasting solution to manual entries in hostel and make available a channel through which manager or hostel in charge can maintain the records easily by saving it digitally. They can be accessed whatever place they might find themselves.

OBJECTIVE:- It keeps track of all information about the students in the hostel, their contact numbers and total number of students staying in Hostel. The manager or hostel in charge will find it easy in this automated system rather than using the manual records. The system contains a database where all the information will be stored safely.

2.PROPSED SYSTEM

Hostel Room Allocation System is a database which aims at computerization of the current procedure of allocating hostel rooms. Currently, the process involves students filling up the forms and submitting them in respective hostel offices which involve a lot of paperwork, hence less efficient.

3.DATA DESIGN

3.1 Entities and Attributes

This section of the document explains the entities used in the project, their attributes and how they will work together. Basically, this is intended to make the design more easy and understandable for everyone.

Entities
- **Address**
- **Hostel**
- **Internet**
- **Student**
- **Student_in_out**
- **Student_tran**
- **Visitor**

1.Address:- It is used to store the address of students.

Attributes

Name	Data Type	Key
ADD_PIN	**INTEGER**	**PRIMARY ATTRIBUTE**
ADD_CITY	**VARCHAR**	**NON_KEY ATTRIBUTE**
ADD_STATE	**VARCHAR**	**NON_KEY ATTRIBUTE**
ADD_COUNTRY	**VARCHAR**	**NON_KEY ATTRIBUTE**

2. Hostel:-   An Institution has many hostels and each hostel is represented using this 'Hostel' entity. Hostel model takes part in the following relationships.. Hostel has Students. Hostel has Rooms. Tells how many hostels are there

Attributes

Name	Data Type	Key
H_NAME	**VARCHAR**	**NON_KEY ATTRIBUTE**
CAPACITY	**INTEGER**	**NON_KEY ATTRIBUTE**
HOSTEL_NO	**INTEGER**	**PRIMARY ATTRIBUTE**
F_SPORTS	**VARCHAR**	**NON_KEY ATTRIBUTE**
F_NEWSPAP_NAME	**VARCHAR**	**NON_KEY ATTRIBUTE**
F_MESS_id	**VARCHAR**	**NON_KEY ATTRIBUTE**
VACANT_ROOMS	INTEGER	**NON_KEY ATTRIBUTE**

3. Internet:-This table is used to store the ip address who are accessing internet with their room no.

Attributes

Name	Data Type	Key
HOSTEL_NO	**INTEGER**	**PRIMARY ATTRIBUTE**
ROOM_NO	**INTEGER**	**PRIMARY ATTRIBUTE**
IP_ADDRESS	**VARCHAR**	**NON_KEY ATTRIBUTE**

4. Student:-This table is used for the student details like their name,rollno Email, date of birth, age, contact no.

Attributes

Name	Data Type	Key
ROLL_NO	**VARCHAR**	**PRIMARY ATTRIBUTE**
FIRST_NAME	**VARCHAR**	**NON_KEY ATTRIBUTE**
LAST_NAME	**VARCHAR**	**NON_KEY ATTRIBUTE**
ROOM_NO	**INTEGER**	**NON_KEY ATTRIBUTE**
MAIL_ID	**VARCHAR**	**NON_KEY ATTRIBUTE**
DOB	DATE-TIME FIELD	**NON_KEY ATTRIBUTE**
AGE	**INTEGER**	**NON_KEY ATTRIBUTE**
CONTACT_NO	**BIG INTEGER**	**NON_KEY ATTRIBUTE**
ADD_HOUSE_NO	**INTEGER**	**NON_KEY ATTRIBUTE**
ADD_PIN	**INTEGER**	**FOREIGN ATTRIBUTE**
ADD_STREET	**VARCHAR**	**NON_KEY ATTRIBUTE**

5.Student In out-This table gives information about student arrival and their leaving time and date.

Attributes

Name	Data Type	Key
RECORD_NO	**INTEGER**	**PRIMARY ATTRIBUTE**
ROLL_NO	VARCHAR	**FOREIGN ATTRIBUTE**
STUDENT_ARR	TIMESTAMP FIELD	**NON_KEY ATTRIBUTE**
STUDENT_DEP	TIMESTAMP FIELD	**NON_KEY ATTRIBUTE**

6. Student Tran -This table gives information about student attendance and which hostel they live in.

Attributes

Name	Data Type	Key
ROLL_NO	VARCHAR	**PRIMARY ATTRIBUTE**
ATTENDANCE	VARCHAR	**NON_KEY ATTRIBUTE**
HOSTEL_NO	**INTEGER**	**FOREIGN ATTRIBUTE**
LIVING DAYS	**INTEGER**	**NON_KEY ATTRIBUTE**

7. Visitor -This table gives information about visitor their contact no and also timings they visited.

Attributes

Name	Data Type	Key
RECORD_NO	**INTEGER**	**PRIMARY ATTRIBUTE**
F_NAME	VARCHAR	**NON_KEY ATTRIBUTE**
L_NAME	VARCHAR	**NON_KEY ATTRIBUTE**
VISITOR_ARR	TIMESTAMP FIELD	**NON_KEY ATTRIBUTE**
VISITOR_DEP	TIMESTAMP FIELD	**NON_KEY ATTRIBUTE**
VISITOR_CONTACT	**BIG INTEGER**	**NON_KEY ATTRIBUTE**
HOSTEL_NO	**INTEGER**	**FOREIGN ATTRIBUTE**

4.ENTITY RELATIONSHIP DIAGRAM

5.IMPLEMENTATION

Creating Address table:

```
mysql> desc address;
+-------------+-------------+------+-----+---------+-------+
| Field       | Type        | Null | Key | Default | Extra |
+-------------+-------------+------+-----+---------+-------+
| ADD_PIN     | int         | NO   | PRI | NULL    |       |
| ADD_CITY    | varchar(30) | YES  |     | NULL    |       |
| ADD_STATE   | varchar(40) | YES  |     | NULL    |       |
| ADD_COUNTRY | varchar(20) | YES  |     | NULL    |       |
+-------------+-------------+------+-----+---------+-------+
4 rows in set (0.00 sec)

mysql> select*from address;
+---------+-----------+----------------+-------------+
| ADD_PIN | ADD_CITY  | ADD_STATE      | ADD_COUNTRY |
+---------+-----------+----------------+-------------+
|  208002 | kanpur    | uttar pradesh  | INDIA       |
|  222001 | jaunpur   | uttar pradesh  | INDIA       |
|  226001 | lucknow   | uttar pradesh  | INDIA       |
|  261001 | sitapur   | uttar pradesh  | INDIA       |
|  261207 | sitapur   | uttar pradesh  | INDIA       |
|  273001 | gorakhpur | uttar pradesh  | INDIA       |
|  273002 | gorakhpur | uttar pradesh  | INDIA       |
|  274001 | deoria    | uttar pradesh  | INDIA       |
|  423203 | malegaon  | maharashtra    | INDIA       |
|  452001 | indore    | madhya pradesh | INDIA       |
|  474011 | gwalior   | madhya pradesh | INDIA       |
|  483773 | katni     | madhya pradesh | INDIA       |
|  824112 | barun     | rajasthan      | INDIA       |
+---------+-----------+----------------+-------------+
13 rows in set (0.00 sec)
```

Creating student table:

```
mysql> desc student;
+--------------+-------------+------+-----+---------+-------+
| Field        | Type        | Null | Key | Default | Extra |
+--------------+-------------+------+-----+---------+-------+
| ROLL_NO      | varchar(15) | NO   | PRI | NULL    |       |
| FIRST_NAME   | varchar(25) | NO   |     | NULL    |       |
| LAST_NAME    | varchar(25) | YES  |     | NULL    |       |
| ROOM_NO      | int         | YES  |     | NULL    |       |
| MAIL_ID      | varchar(50) | YES  |     | NULL    |       |
| DOB          | date        | YES  |     | NULL    |       |
| AGE          | int         | YES  |     | NULL    |       |
| CONTACT_NO   | bigint      | YES  |     | NULL    |       |
| ADD_HOUSE_NO | int         | YES  |     | NULL    |       |
| ADD_PIN      | int         | NO   | MUL | NULL    |       |
| ADD_STREET   | varchar(15) | YES  |     | NULL    |       |
+--------------+-------------+------+-----+---------+-------+
11 rows in set (0.01 sec)

mysql> select*from student;
+---------+------------+-----------+---------+-------------------------+------------+-----+------------+--------------+---------+---------------+
| ROLL_NO | FIRST_NAME | LAST_NAME | ROOM_NO | MAIL_ID                 | DOB        | AGE | CONTACT_NO | ADD_HOUSE_NO | ADD_PIN | ADD_STREET    |
+---------+------------+-----------+---------+-------------------------+------------+-----+------------+--------------+---------+---------------+
| 2011110 | PANKAJ     | SINGH     |       7 | ppsingh@gmail.com       | 1995-07-04 |  21 | 7588961231 |            7 | 483773  | imtiya        |
| 2012013 | ANKIT      | JHAROTIYA |      19 | ankiti26@gmail.com      | 1993-02-06 |  23 | 7898422792 |            9 | 452001  | raja bagh     |
| 2013109 | SONU       | MEENA     |       8 | sonu.meena@gmail.com    | 1994-09-05 |  22 | 9829074706 |            2 | 824112  | indira road   |
| 2014009 | ALOK       | SINGH     |      49 | aloks2573@gmail.com     | 1996-11-10 |  20 | 8109537085 |           78 | 273001  | padrona       |
| 2014013 | ANANT      | UPADHYAY  |      30 | anant131995@gmail.com   | 1995-08-12 |  21 | 8889795330 |           40 | 273002  | civil line    |
| 2014014 | ANIKET     | GUPTA     |      31 | aniket.fauji@gmail.com  | 1995-05-27 |  21 | 7783958558 |           20 | 222001  | civil line    |
| 2014022 | ARPIT      | YADAV     |     140 | yadavarpit@gmail.com    | 1995-09-20 |  21 | 8989711506 |            3 | 226001  | gandhi street |
| 2014049 | KRISHNA    | YADAV     |      52 | kkyadaviiitm@gmail.com  | 1995-08-04 |  21 | 8719987060 |           26 | 273001  | Police colony |
| 2014078 | SAURABH    | SHARMA    |      46 | sspgaurav@gmail.com     | 1996-07-31 |  20 | 9111186037 |            6 | 208002  | old_cnb       |
| 2014079 | SHANTANU   | TRIPATHI  |      47 | shantanu.akt@gmail.com  | 1996-07-11 |  20 | 8435564615 |           18 | 261001  | civil line    |
| 2014102 | VIKAS      | YADAV     |      29 | viksyvy@gmail.com       | 1996-06-28 |  20 | 8718863298 |           26 | 274001  | patel nagar   |
| 2014103 | VIPIN      | KUMAR     |      43 | vipin11july1995@gmail.com | 1995-07-11 | 21 | 9455235148 |           17 | 261207  | anand nagar   |
| 2014116 | BUDDHPRIY  | MAURY     |      53 | skm.bpm@gmail.com       | 1995-01-15 |  21 | 8462072647 |           48 | 273001  | kushinagar    |
| 2015116 | ANKIT      | KUMAR     |     140 | amitkumar.iiitm@gmail.com | 1990-12-25 | 26 | 9425778033 |           25 | 474011  | lashkar       |
| 2015123 | RAJ        | VERMA     |      25 | rajv@gmail.com          | 2001-11-23 |  24 | 9988556644 |           47 | 474011  | JVLR          |
| 2015666 | ROHIT      | KUMAR     |      22 | rohit868@gmail.com      | 1998-01-21 |  21 | 7584565221 |           87 | 226001  | Patel Road    |
| 2016254 | SHASHANK   | RAO       |      24 | itsme@gmail.com         | 2001-11-23 |  24 | 9988556644 |           47 | 474011  | JVLR          |
+---------+------------+-----------+---------+-------------------------+------------+-----+------------+--------------+---------+---------------+
17 rows in set (0.00 sec)
```

Creating table hostel:

```
mysql> desc hostel;
+----------------+-------------+------+-----+---------+-------+
| Field          | Type        | Null | Key | Default | Extra |
+----------------+-------------+------+-----+---------+-------+
| H_NAME         | varchar(15) | NO   |     | NULL    |       |
| CAPACITY       | int         | NO   |     | NULL    |       |
| HOSTEL_NO      | int         | NO   | PRI | NULL    |       |
| F_SPORTS       | varchar(15) | YES  |     | NULL    |       |
| F_NEWSPAP_NAME | varchar(20) | YES  |     | NULL    |       |
| F_MESS_id      | varchar(5)  | YES  |     | NULL    |       |
| VACANT_ROOMS   | int         | YES  |     | NULL    |       |
+----------------+-------------+------+-----+---------+-------+
7 rows in set (0.00 sec)

mysql> select*from hostel;
+---------+----------+-----------+----------+----------------+-----------+--------------+
| H_NAME  | CAPACITY | HOSTEL_NO | F_SPORTS | F_NEWSPAP_NAME | F_MESS_id | VACANT_ROOMS |
+---------+----------+-----------+----------+----------------+-----------+--------------+
| A-BLOCK |      120 |         1 | TT       | THE HINDU      | M-1       |           20 |
| B-BLOCK |      150 |         2 | SNOOKER  | INDIAN EXPRESS | M-2       |           20 |
| C-BLOCK |      120 |         3 | TT       | TIMES OF INDIA | M-3       |           24 |
+---------+----------+-----------+----------+----------------+-----------+--------------+
3 rows in set (0.00 sec)
```

Creating table Internet:-

```
mysql> desc internet;
+------------+-------------+------+-----+---------+-------+
| Field      | Type        | Null | Key | Default | Extra |
+------------+-------------+------+-----+---------+-------+
| HOSTEL_NO  | int         | NO   | PRI | NULL    |       |
| ROOM_NO    | int         | NO   | PRI | NULL    |       |
| IP_ADDRESS | varchar(16) | YES  |     | NULL    |       |
+------------+-------------+------+-----+---------+-------+
3 rows in set (0.00 sec)

mysql> select*from internet;
+-----------+---------+----------------+
| HOSTEL_NO | ROOM_NO | IP_ADDRESS     |
+-----------+---------+----------------+
|         1 |      20 | 192.168.64.241 |
|         1 |     210 | 192.168.64.201 |
|         2 |      20 | 192.168.64.21  |
|         2 |     120 | 192.168.64.107 |
|         3 |     204 | 192.168.64.121 |
|         3 |     320 | 192.168.64.22  |
+-----------+---------+----------------+
6 rows in set (0.00 sec)
```

Creating table Student:

```
mysql> desc student;
+-------------+-------------+------+-----+---------+-------+
| Field       | Type        | Null | Key | Default | Extra |
+-------------+-------------+------+-----+---------+-------+
| ROLL_NO     | varchar(15) | NO   | PRI | NULL    |       |
| FIRST_NAME  | varchar(25) | NO   |     | NULL    |       |
| LAST_NAME   | varchar(25) | YES  |     | NULL    |       |
| ROOM_NO     | int         | YES  |     | NULL    |       |
| MAIL_ID     | varchar(50) | YES  |     | NULL    |       |
| DOB         | date        | YES  |     | NULL    |       |
| AGE         | int         | YES  |     | NULL    |       |
| CONTACT_NO  | bigint      | YES  |     | NULL    |       |
| ADD_HOUSE_NO| int         | YES  |     | NULL    |       |
| ADD_PIN     | int         | NO   | MUL | NULL    |       |
| ADD_STREET  | varchar(15) | YES  |     | NULL    |       |
+-------------+-------------+------+-----+---------+-------+
11 rows in set (0.01 sec)

mysql> select*from student;
+---------+------------+-----------+---------+-------------------------+------------+-----+------------+-------------+---------+--------------+
| ROLL_NO | FIRST_NAME | LAST_NAME | ROOM_NO | MAIL_ID                 | DOB        | AGE | CONTACT_NO | ADD_HOUSE_NO| ADD_PIN | ADD_STREET   |
+---------+------------+-----------+---------+-------------------------+------------+-----+------------+-------------+---------+--------------+
| 2011110 | PANKAJ     | SINGH     |       7 | ppsingh@gmail.com       | 1995-07-04 |  21 | 7588961231 |           7 | 483773  | imtiya       |
| 2012013 | ANKIT      | JHAROTIYA |      19 | ankit126@gmail.com      | 1993-02-06 |  23 | 7898422792 |           9 | 452001  | raja bagh    |
| 2013109 | SONU       | MEENA     |       8 | sonu.meena@gmail.com    | 1994-09-05 |  22 | 9829074706 |           2 | 824112  | indira road  |
| 2014009 | ALOK       | SINGH     |      49 | aloks2573@gmail.com     | 1996-11-10 |  20 | 8109537085 |          78 | 273001  | padrona      |
| 2014013 | ANANT      | UPADHYAY  |      30 | anant131995@gmail.com   | 1995-08-12 |  21 | 8889795330 |          40 | 273002  | civil line   |
| 2014014 | ANIKET     | GUPTA     |      31 | aniket.fauji@gmail.com  | 1995-05-27 |  21 | 7783958558 |          20 | 222001  | civil line   |
| 2014022 | ARPIT      | YADAV     |     140 | yadavarpit@gmail.com    | 1995-09-20 |  21 | 8989711506 |           3 | 226001  | gandhi street|
| 2014049 | KRISHNA    | YADAV     |      52 | kkyadaviiitm@gmail.com  | 1995-08-04 |  21 | 8719987060 |          26 | 273001  | Police colony|
| 2014078 | SAURABH    | SHARMA    |      46 | sspgaurav@gmail.com     | 1996-07-31 |  20 | 9111186037 |           6 | 208002  | old_cnb      |
| 2014079 | SHANTANU   | TRIPATHI  |      47 | shantanu.akt@gmail.com  | 1996-07-11 |  20 | 8435564615 |          18 | 261001  | civil line   |
| 2014102 | VIKAS      | YADAV     |      29 | viksyvy@gmail.com       | 1996-06-28 |  20 | 8718863298 |          26 | 274001  | patel nagar  |
| 2014103 | VIPIN      | KUMAR     |      43 | vipin11july1995@gmail.com| 1995-07-11 | 21 | 9455235148 |          17 | 261207  | anand nagar  |
| 2014116 | BUDDHPRIY  | MAURY     |      53 | skm.bpm@gmail.com       | 1995-01-15 |  21 | 8462072647 |          48 | 273001  | kushinagar   |
| 2015116 | ANKIT      | KUMAR     |     140 | amitkumar.iiitm@gmail.com| 1990-12-25 | 26 | 9425778033 |          25 | 474011  | lashkar      |
| 2015123 | RAJ        | VERMA     |      25 | rajv@gmail.com          | 2001-11-23 |  24 | 9988556644 |          47 | 474011  | JVLR         |
| 2015666 | ROHIT      | KUMAR     |      22 | rohit868@gmail.com      | 1998-01-21 |  21 | 7584565221 |          87 | 226001  | Patel Road   |
| 2016254 | SHASHANK   | RAO       |      24 | itsme@gmail.com         | 2001-11-23 |  24 | 9988556644 |          47 | 474011  | JVLR         |
+---------+------------+-----------+---------+-------------------------+------------+-----+------------+-------------+---------+--------------+
17 rows in set (0.00 sec)
```

Creating table Student_in_out:-

```
mysql> desc student_in_out;
+-------------+-------------+------+-----+---------+-------+
| Field       | Type        | Null | Key | Default | Extra |
+-------------+-------------+------+-----+---------+-------+
| RECORD_NO   | int         | NO   | PRI | NULL    |       |
| ROLL_NO     | varchar(15) | NO   | MUL | NULL    |       |
| STUDENT_ARR | timestamp   | YES  |     | NULL    |       |
| STUDENT_DEP | timestamp   | YES  |     | NULL    |       |
+-------------+-------------+------+-----+---------+-------+
4 rows in set (0.00 sec)

mysql> select * from student_in_out;
+-----------+---------+---------------------+---------------------+
| RECORD_NO | ROLL_NO | STUDENT_ARR         | STUDENT_DEP         |
+-----------+---------+---------------------+---------------------+
|         1 | 2013109 | 2016-04-12 23:02:46 | 2016-04-13 23:03:02 |
|         2 | 2014014 | 2016-04-21 21:03:54 | 2016-04-22 20:04:07 |
|         3 | 2014022 | 2016-04-22 23:04:36 | 2016-04-22 04:05:06 |
|         4 | 2011110 | 2016-12-14 11:25:32 | 2016-12-15 21:25:21 |
|         5 | 2014049 | 2017-02-01 08:44:12 | 2017-02-02 21:00:00 |
|         6 | 2014116 | 2017-05-17 12:05:00 | 2017-05-19 22:00:45 |
+-----------+---------+---------------------+---------------------+
6 rows in set (0.00 sec)
```

Creating table Student_tran:-

```
mysql> desc student_tran;
+-------------+-------------+------+-----+---------+-------+
| Field       | Type        | Null | Key | Default | Extra |
+-------------+-------------+------+-----+---------+-------+
| ROLL_NO     | varchar(15) | NO   | PRI | NULL    |       |
| ATTENDENCE  | varchar(2)  | YES  |     | NULL    |       |
| HOSTEL_NO   | int         | YES  | MUL | NULL    |       |
| LIVING_DAYS | int         | YES  |     | NULL    |       |
+-------------+-------------+------+-----+---------+-------+
4 rows in set (0.01 sec)

mysql> select*from student_tran;
+---------+------------+-----------+-------------+
| ROLL_NO | ATTENDENCE | HOSTEL_NO | LIVING_DAYS |
+---------+------------+-----------+-------------+
| 2011110 | P          |         2 |          26 |
| 2013109 | P          |         2 |          26 |
| 2014009 | P          |         2 |          20 |
| 2014013 | P          |         2 |          24 |
| 2014014 | P          |         2 |          24 |
| 2014022 | P          |         2 |          24 |
| 2014049 | P          |         2 |          20 |
| 2014078 | P          |         3 |          25 |
| 2014079 | P          |         3 |          25 |
| 2014102 | P          |         2 |          24 |
| 2014103 | P          |         2 |          20 |
| 2014116 | P          |         2 |          26 |
| 2015116 | P          |         3 |          25 |
| 2015123 | P          |         1 |          40 |
| 2015666 | P          |         1 |          29 |
| 2016254 | P          |         1 |          14 |
+---------+------------+-----------+-------------+
16 rows in set (0.00 sec)
```

Creating table Visitor:-

```
mysql> desc visitor;
+-----------------+-------------+------+-----+---------+-------+
| Field           | Type        | Null | Key | Default | Extra |
+-----------------+-------------+------+-----+---------+-------+
| RECORD_NO       | int         | NO   | PRI | NULL    |       |
| F_NAME          | varchar(15) | NO   |     | NULL    |       |
| L_NAME          | varchar(15) | YES  |     | NULL    |       |
| VISITOR_ARR     | timestamp   | YES  |     | NULL    |       |
| VISITOR_DEP     | timestamp   | YES  |     | NULL    |       |
| VISITOR_CONTACT | bigint      | YES  |     | NULL    |       |
| HOSTEL_NO        | int        | YES  | MUL | NULL    |       |
+-----------------+-------------+------+-----+---------+-------+
7 rows in set (0.00 sec)

mysql> select*from visitor;
+-----------+--------+----------+---------------------+---------------------+-----------------+-----------+
| RECORD_NO | F_NAME | L_NAME   | VISITOR_ARR         | VISITOR_DEP         | VISITOR_CONTACT | HOSTEL_NO |
+-----------+--------+----------+---------------------+---------------------+-----------------+-----------+
|         1 | ARUN   | TRIPATHI | 2016-04-04 23:08:19 | 2016-04-04 23:08:24 |      9839943548 |         2 |
|         2 | SP     | SHARMA   | 2016-04-13 23:09:06 | 2016-04-14 23:09:13 |      9792177883 |         3 |
|         3 | SATISH | KUMAR    | 2016-06-24 11:55:00 | 2016-06-25 10:22:24 |      8457858955 |         1 |
|         4 | LOKESH | JAIN     | 2016-07-12 09:15:10 | 2016-07-12 12:05:12 |      9654781235 |         1 |
|         5 | SAMEER | SETH     | 2016-07-25 22:14:48 | 2016-07-26 13:25:47 |      7841126955 |         1 |
|         6 | AKASH  | MJ       | 2017-01-02 10:12:44 | 2017-01-02 13:10:13 |      9145287777 |         3 |
+-----------+--------+----------+---------------------+---------------------+-----------------+-----------+
6 rows in set (0.00 sec)
```

6.TEST-CASE QUERIES

1. To see the no. of rooms vacant-
SELECT vacant_room FROM hostel WHERE HOSTEL_NO =1;

```
mysql> #To see the no. of rooms vacant
mysql>  SELECT vacant_rooms FROM hostel WHERE HOSTEL_NO =1;
+--------------+
| vacant_rooms |
+--------------+
|           20 |
+--------------+
1 row in set (0.00 sec)
```

2. To get total info of hostel-
SELECT * FROM hostel WHERE hostel_no=1;

```
mysql> #To get total info about a hostel
mysql>    SELECT * FROM hostel WHERE hostel_no=1 ;
+---------+----------+-----------+----------+---------------+----------+--------------+
| H_NAME  | CAPACITY | HOSTEL_NO | F_SPORTS | F_NEWSPAP_NAME | F_MESS_id | VACANT_ROOMS |
+---------+----------+-----------+----------+---------------+----------+--------------+
| A-BLOCK |      120 |         1 | TT       | THE HINDU     | M-1      |           20 |
+---------+----------+-----------+----------+---------------+----------+--------------+
1 row in set (0.00 sec)
```

3. To get info of visitors to a particular hostel-
SELECT *FROM VISITOR WHERE hostel_no=2;

```
mysql> #To get info of visitors to a particular hostel
mysql>  SELECT *FROM VISITOR WHERE hostel_no=2;
+-----------+--------+----------+---------------------+---------------------+-----------------+-----------+
| RECORD_NO | F_NAME | L_NAME   | VISITOR_ARR         | VISITOR_DEP         | VISITOR_CONTACT | HOSTEL_NO |
+-----------+--------+----------+---------------------+---------------------+-----------------+-----------+
|         1 | ARUN   | TRIPATHI | 2016-04-04 23:08:19 | 2016-04-04 23:08:24 |      9839943548 |         2 |
+-----------+--------+----------+---------------------+---------------------+-----------------+-----------+
1 row in set (0.01 sec)
```

4. To get the arrival and departure time of a student from a hostel-

SELECT STUDENT_ARR,STUDENT_DEP,FROM STUDENT_IN_OUT WHERE roll_no='2013109';

```
mysql> #To get the arrival and departure time of a student from a hostel
mysql>  SELECT STUDENT_ARR,STUDENT_DEP FROM STUDENT_IN_OUT WHERE roll_no='2013109';
+---------------------+---------------------+
| STUDENT_ARR         | STUDENT_DEP         |
+---------------------+---------------------+
| 2016-04-12 23:02:46 | 2016-04-13 23:03:02 |
+---------------------+---------------------+
1 row in set (0.00 sec)
```

5. To check total capacity of a particular hostel-

SELECT CAPACITY,H_NAME FROM hostel WHERE hostel_no=2;

```
mysql> #To check total capacity of a particular hostel
mysql>  SELECT H_NAME,CAPACITY FROM hostel WHERE hostel_no=2;
+---------+----------+
| H_NAME  | CAPACITY |
+---------+----------+
| B-BLOCK |      150 |
+---------+----------+
1 row in set (0.00 sec)
```

6. To select student info from room no-

SELECT * FROM student WHERE ROOM_NO=140;

```
mysql> #To Select info of students from a Particular Room
mysql>  SELECT * FROM student WHERE ROOM_NO=140;
+---------+------------+-----------+---------+----------------------------+------------+-----+------------+-------------+---------+--------------+
| ROLL_NO | FIRST_NAME | LAST_NAME | ROOM_NO | MAIL_ID                    | DOB        | AGE | CONTACT_NO | ADD_HOUSE_NO | ADD_PIN | ADD_STREET   |
+---------+------------+-----------+---------+----------------------------+------------+-----+------------+-------------+---------+--------------+
| 2014022 | ARPIT      | YADAV     |     140 | yadavarpit@gmail.com       | 1995-09-20 |  21 | 8989711506 |           3 |  226001 | gandhi street |
| 2015116 | ANKIT      | KUMAR     |     140 | amitkumar.iiitm@gmail.com  | 1990-12-25 |  26 | 9425778033 |          25 |  474011 | lashkar      |
+---------+------------+-----------+---------+----------------------------+------------+-----+------------+-------------+---------+--------------+
2 rows in set (0.00 sec)
```

7. To check if a student is present in hostel or on leave on a particular-

SELECT ATTENDANCE,HOSTEL_NO FROMstudent_TRAN WHERE roll_no='2014102';

```
mysql> #To check if a student is present in hostel or on leave
mysql>   SELECT HOSTEL_NO,ATTENDENCE FROM student_TRAN WHERE roll_no='2014102';
+-----------+------------+
| HOSTEL_NO | ATTENDENCE |
+-----------+------------+
|         2 | P          |
+-----------+------------+
1 row in set (0.00 sec)
```

8. To check the newspaper supply in hostels:-

SELECT HOSTEL_NO,F_NEWSPAP_NAME FROM HOSTEL Group by HOSTEL_NO;

```
mysql> #To Check The Newspaper Supply in Hostels
mysql> SELECT HOSTEL_NO,F_NEWSPAP_NAME FROM HOSTEL Group By HOSTEL_NO;
+-----------+----------------+
| HOSTEL_NO | F_NEWSPAP_NAME |
+-----------+----------------+
|         1 | THE HINDU      |
|         2 | INDIAN EXPRESS |
|         3 | TIMES OF INDIA |
+-----------+----------------+
3 rows in set (0.00 sec)
```

9. To select the list of students born in 1995:-

SELECT FIRST_NAME FROM student where DOB like '1995___';

```
mysql> #To select the list of students born in 1995
mysql> SELECT FIRST_NAME FROM student where DOB like '1995_____';
+------------+
| FIRST_NAME |
+------------+
| PANKAJ     |
| ANANT      |
| ANIKET     |
| ARPIT      |
| KRISHNA    |
| VIPIN      |
| BUDDHPRIY  |
+------------+
7 rows in set (0.00 sec)
```

10.To display the Total no.of.days students spent in the hostel all together:-

SELECT sum(LIVING_DAYS) FROM student_tran;

```
mysql> #To display the Total No.Of.Days Students Spent in the hostel all together
mysql> SELECT sum(LIVING_DAYS) FROM student_tran;
+-----------------+
| sum(LIVING_DAYS) |
+-----------------+
|             392 |
+-----------------+
1 row in set (0.00 sec)
```

11.To display the no.of.visitors of a hostel:-

SELECT count(RECORD_NO) as NO_OF_VISITORS from visitors where HOSTEL_NO =3;

```
mysql> #To Display the no.of.vistors of a hostel
mysql> SELECT count(RECORD_NO) as NO_OF_VISITORS from visitor where HOSTEL_NO =3;
+----------------+
| NO_OF_VISITORS |
+----------------+
|              2 |
+----------------+
1 row in set (0.00 sec)
```

CONCULUSION

• SQL database management application which is very well used in the modern world in organising and manipulating a database.

• It also shows how relationships are established with the concepts of primary and foreign key within a table.

• Depending on the user or users, if an organisation has multiple users then they should go for SQL server based application.

• This project shows how to create tables in SQL and how to create simple data manipulation language and data definition language with how to execute them.

REFERCENSES

• https://erdplus.com/standalone