## MEDICAL STORE MANAGEMENT SYSTEM

# DEPARTMENT OF INFORMATION TECHNOLOGY GALGOTIAS COLLEGE OF INFORMATION AND TECHNOLOGY [SUPERVISOR: Mr. Ranjit Kumar]

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#### **ABOUT PROJECT**

#### MEDICAL STORE MANAGEMENT SYSTEM

It is a management system of Medical Store, to maintain and manage record of medicines, employees and transactions related information.

It is a one stop intelligent solution of problems every medical store owners faces.

Moreover, its friendly GUI makes it more useful and time saving.

Administrator can manage everything, and each employee will have there own account, thus, making each employee work private from each other. However, ADMIN can observe everything.

Employees will only have rights for adding records, and there attendance is monitored within the application. Employees can reset the password either by their unique User Name or by directly contacting the administrator of the store.

Administrator credentials are given below, they can not be reset by the admin itself, if in case lost or forgotten. Admin needs to contact the engineer for the recovery.

User Name: admin

Password: root

For this project, Java language and MySQL databases are used.

### HARDWARE REQUIREMENTS

- Minimum CPU: Platinum III or equivalent. Recommended CPU: intel core i3 with 6<sup>th</sup> generation or equivalent.
- CPU Speed of at least 1 Giga Hertz
- Minimum RAM: 256MB. Recommended RAM: 4 GB.
- Operating System: Windows XP. Recommended: Windows 8.1 or higher.
- Low end graphics for visuals of at least 64 MB.
- Disk space: 2GB is recommended.

#### SOFTWARE REQUIREMENTS

- MySQL database.
- MySQL J (Connector) for MySQL database and Java connectivity.
- Java Development Kit (JDK) needed to be installed for Java libraries.
- NetBeans IDE
- rs2xml.jar file for editing queries into GUI table from SQL databases.
- Inno Setup compiler to make executable (.exe) installer.

#### BACKEND WORKING

NetBeans IDE is used for designing GUI and Java coding.

As MySQL queries are initiated in Java instructions, MySQL connector J is used which export the extracted SQL query from Java to MySQL database.

For this purpose, MySQL JDBC (Java Database Connectivity) driver is added in libraries of Java project. The folder containing .jar file of the connector.

The rs2xml.jar file which is added to the libraries of Java project, makes it possible to view any changes in table in GUI.

#### MENU OF MEDICAL STORE MANAGEMENT

This is the main menu of the medical store software.

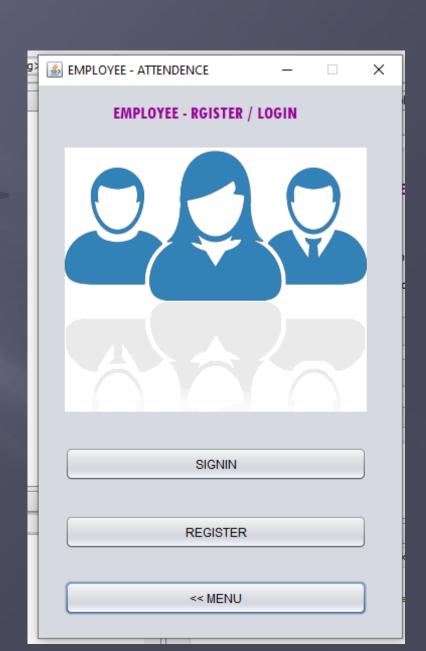
From "ATTENDANCE" tab, employees can give attendance on regular working days. Then, they can proceed to their working and managing data. From "ADMINISTRATOR LOGIN", admin login panel opens, through which admins can manage everything throughout the application.

"EXIT" button closes the application.



## SIGIN/REGISTER

This is the selection menu, where employee either proceed for login or register themselvese if in case new. For going back to menu, MENU button will help.

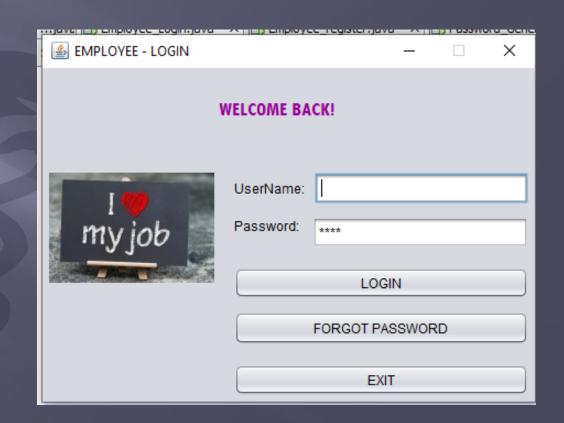


#### EMPLOYEE LOGIN PANEL

This is the Employee Login Panel, through which employee can enter its unique username and password to continue for attendance.

However, if employee forgot/lost its password, forgot password button will help.

Exit button will close the application.



#### FORGOT PASSWORD PANEL

This is the RESET PASSWORD window, where employee will enter its username, then check if it exists in the record, then enters a new strong password, once clicks on reset, the password is reset.

Password Generator tool is recommended to create the strong password. Back to login panel button will lead to Login wizard to enter credentials.



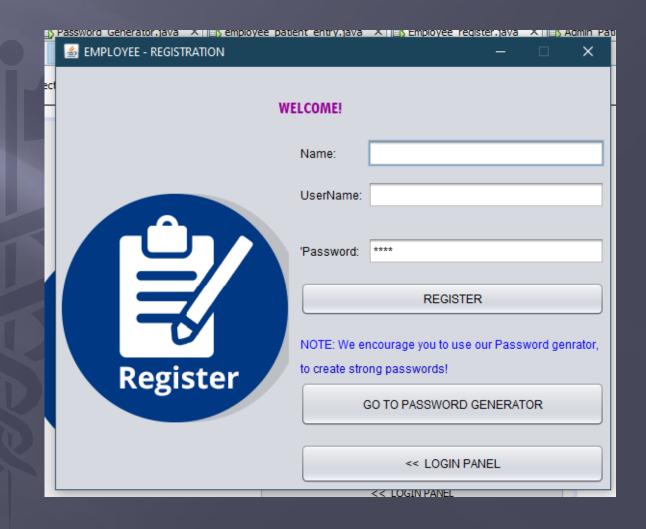
### PASSWORD GENERATOR TOOL

This is the Password Generator tool, which can generate alphanumeric strong passwords ranging 1 to 100 characters of length. However, employees are allowed up to 10 characters for the registration purpose. Keeping either 5 or 6 characters length is recommended for employees. Back to registration form and reset password buttons leads to respective panel.



### REGISTERATION PANEL

This is the registration form, where employee select its unique username, enters desired password, and register themselves in the employee record. Password Generator Tool is recommended. Login Panel button leads back to Login wizard.

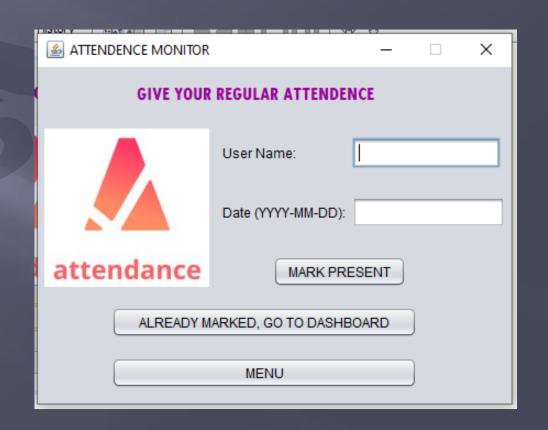


#### ATTENDENCE PANEL

This is the Attendance Panel, where employees can give there regular attendance.

Mark Present button will save there attendance as present in the given date. Go to Dashboard button will lead to employee's dashboard.

Menu button will open menu through which, at the end of the day, employee can exit the application.



#### EMPLOYEE PANEL

This is the employee management panel, where it can—

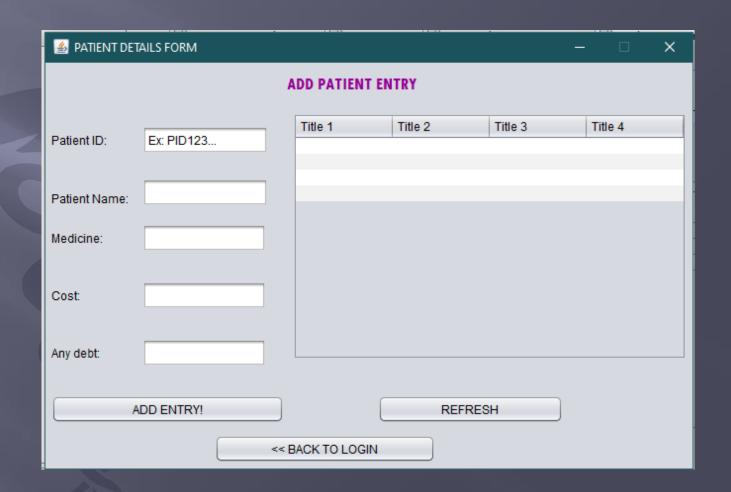
- Add Patient Entry
- Add Transaction Record
- Add Medicine Record
- Log out to the attendance panel, to exit the application.



#### PATIENT ENTRY BY AN EMPLOYEE

Through this panel, employee can add patient details to the record.

In this case, limited editing rights are given to the employee like it can not delete any patient details.

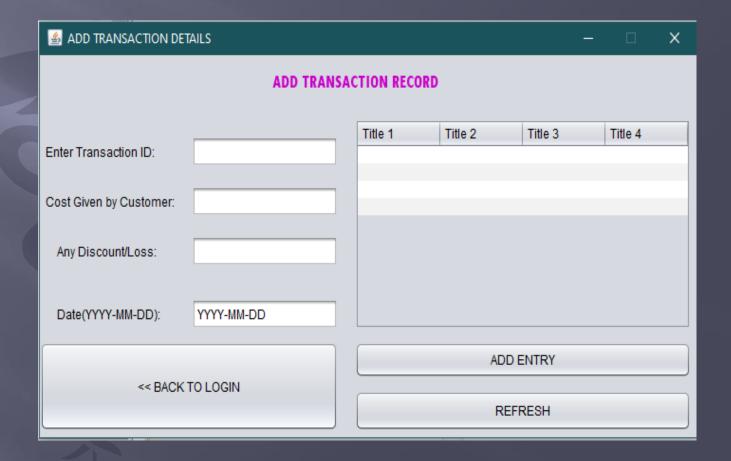


#### **EMPLOYEE TRANSACTION RECORD MANAGEMENT**

This is employee level transaction control panel, employee can only add the record of transaction with the customer.

In this case also, limited rights

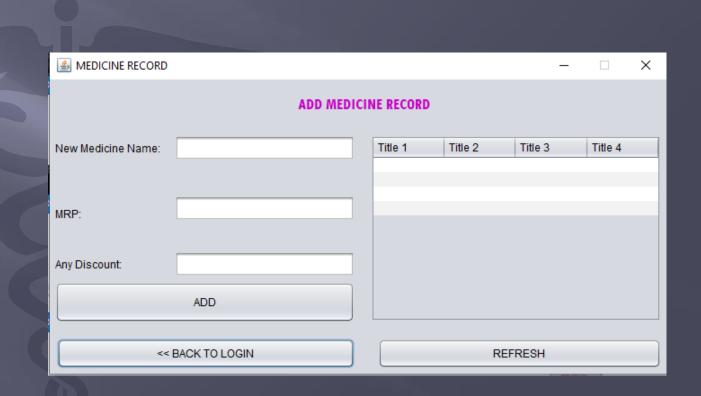
are given to the employee.



#### EMPLOYEE MEDICINE RECORD MANAGEMENT

This is the employee medicine management console, if in case any employee attend the receiving of delivered new medicine, then it can add to the record.

However, limited rights are given, like removing medicine data can not be done by an employee.



#### ADMINISTRATOR LOGIN PANEL

This is the main admin login panel, its login credential is unique and given to the admin only. Through this panel, administrator of the medical store can login to manage the records with administrative rights.

User Name and Password, as per provided with software, needs to be kept in a very safe place. Once lost or forgot, admin cannot modify it, he/she needs to call an engineer for the recovery.



#### ADMINISTRATIVE PANEL

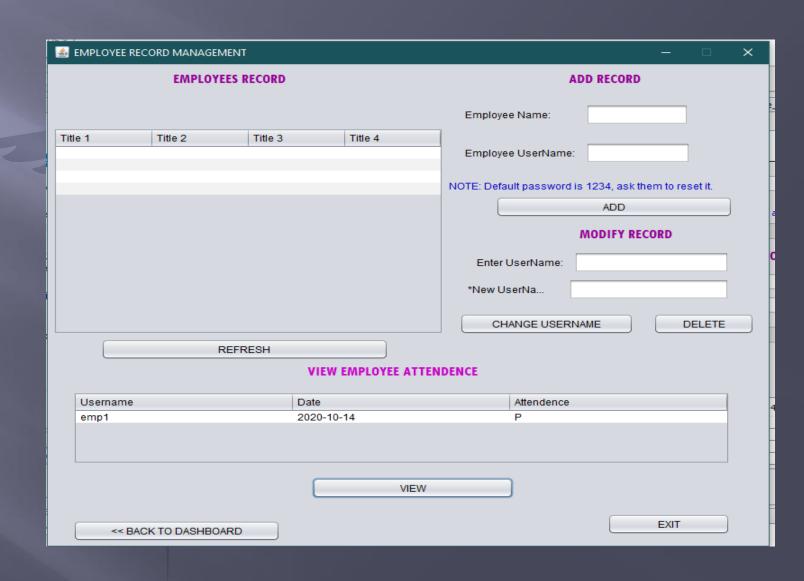
This is the administrative control panel, through which admin can—

- Manage employee records
- Manage medicine records
- Manage transaction records
- Any critical or important cases management



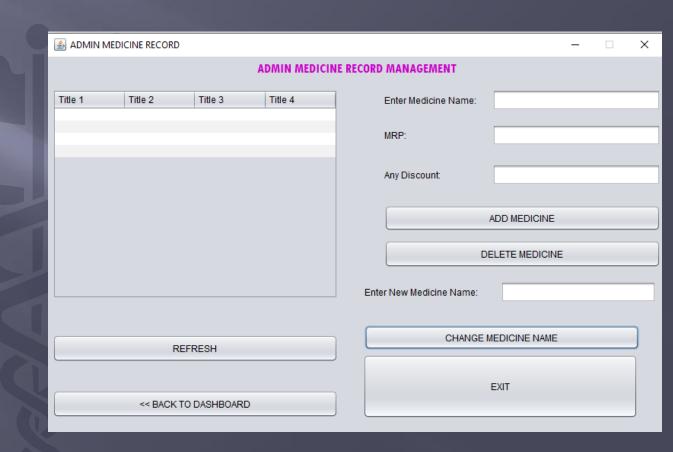
#### ADMIN EMPLOYEES RECORD MANAGEMENT

This is the employees record management console, through which admin can add any new employee, and provide it with its credentials. If in any case, employee resigns from job admin can remove its data permanently. Employees attendance can also be viewed.



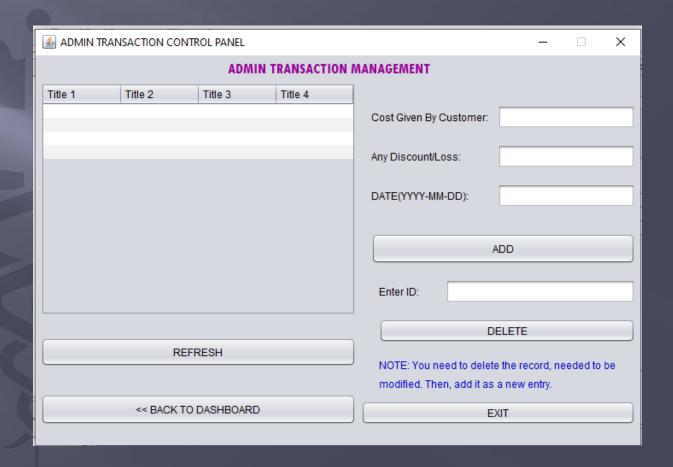
#### ADMIN MEDICINE RECORD MANAGEMENT

This is the medicine record management console with administrative rights.
Admin can add, delete and modify name of any medicine.



#### ADMIN TRANSACTION RECORD

This is the admin level transaction control panel. Through which admin can not only add records but also can delete and modify it.



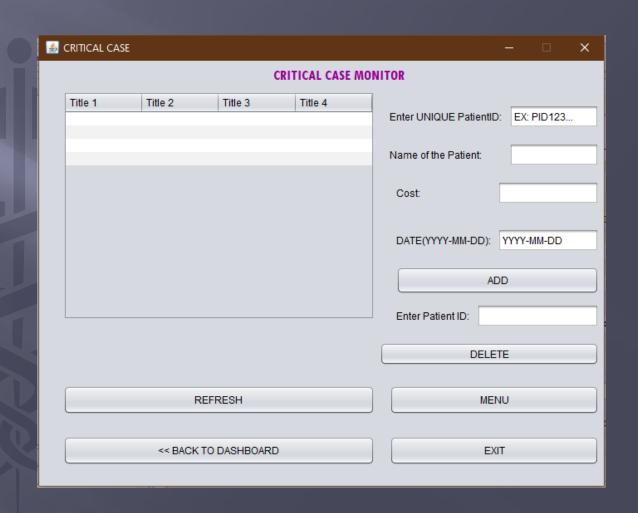
#### ADMIN PATIENT RECORD MANAGEMENT

This is admin level of Patient record management console with some admin rights of deleting the patient record.

							×
ADMIN PATIENT RECORD MANAGEMENT							
Patient ID:	Ex: PID123	Title 1	Title 2	Title 3	Title 4		
Patient Name:							
Medicine:							
Cost:							
Any debt:							
ADD ENTRY							
			REFRE	SH			
ENTER ID:							
DELETE PATIENT RECORD							
BACK TO DASHBOARD							

## CRITICAL/IMPORTANT CASES MANAGEMENT

For any critical cases, like any patient is arriving after working hours or any personal cases etc., are managed by admin through this panel.



#### DATABASE

In this project, MySQL database management system is used, in which a database is created under which required tuples(tables) are stored. In this application "Admin" database is used. It contains six tables as shown.

#### ATTENDENCE RECORD

```
MariaDB [(none)]> use admin;
Database changed
MariaDB [admin]> desc attendence;
 Field
            Type | Null | Key | Default | Extra
 Username
            | varchar(20) | NO | PRI | NULL
             date
                         l YES
                                      NULL
 Date
 Attendence | char(10)
                                      NULL
                         YES
3 rows in set (0.030 sec)
MariaDB [admin]> insert into attendence values("emp1","2020-10-14","P");
Query OK, 1 row affected (0.070 sec)
MariaDB [admin]> select * from attendence;
 Username Date Attendence
 emp1 | 2020-10-14 | P
1 row in set (0.001 sec)
```

#### EMPLOYEE RECORD

```
MariaDB [admin]> desc employee record;
 Field
            Type | Null | Key | Default | Extra
 UserName
            varchar(10)
                        YES
                                 UNI
                                       NULL
            varchar(11)
 Password
                          YES
                                       NULL
            varchar(20) | YES
                                       NULL
 Name
3 rows in set (0.080 sec)
MariaDB [admin]> insert into employee record values("harsh","6666","Harsh");
Query OK, 1 row affected (0.118 sec)
MariaDB [admin]> select * from employee record;
 UserName
            Password
                       Name
 harsh
            6666
                       Harsh
 row in set (0.000 sec)
```

#### MEDICINE RECORD

```
MariaDB [admin]> desc medicine record;
 Field
          Type | Null | Key |
                                       Default | Extra
          | varchar(30)
                          YES
                                UNI
                                       NULL
 Name
 MRP
            double(10,3)
                          YES
                                       NULL
 Discount | double(10,3)
                         YES
                                       NULL
3 rows in set (0.031 sec)
MariaDB [admin]> insert into medicine record values("Paracetamol","65","0");
Query OK, 1 row affected (0.104 sec)
MariaDB [admin]> select * from medicine_record;
 Name
              MRP
                      Discount
 Paracetamol | 65.000 |
                         0.000
 row in set (0.000 sec)
```

#### PATIENT RECORD

```
MariaDB [admin]> desc patient record;
           | Type | Null | Key | Default | Extra
 Field
 PatientID | varchar(30) | YES
                               UNI NULL
           varchar(30)
 Name
                         | YES
                                      NULL
           varchar(20)
 Medicine
                         YES
                                      NULL
           | double(10,3) | YES
                                    NULL
 Cost
 AnyDebt
           double(10,2) YES
                                     NULL
5 rows in set (0.175 sec)
MariaDB [admin]> insert into patient record values("PID01","Kushagra","Paracetamol","65","0");
Query OK, 1 row affected (0.068 sec)
MariaDB [admin]> select * from patient record;
 PatientID Name
                     Medicine
                                  Cost
                                          AnyDebt
          | Kushagra | Paracetamol | 65.000 | 0.00
 PID01
1 row in set (0.000 sec)
```

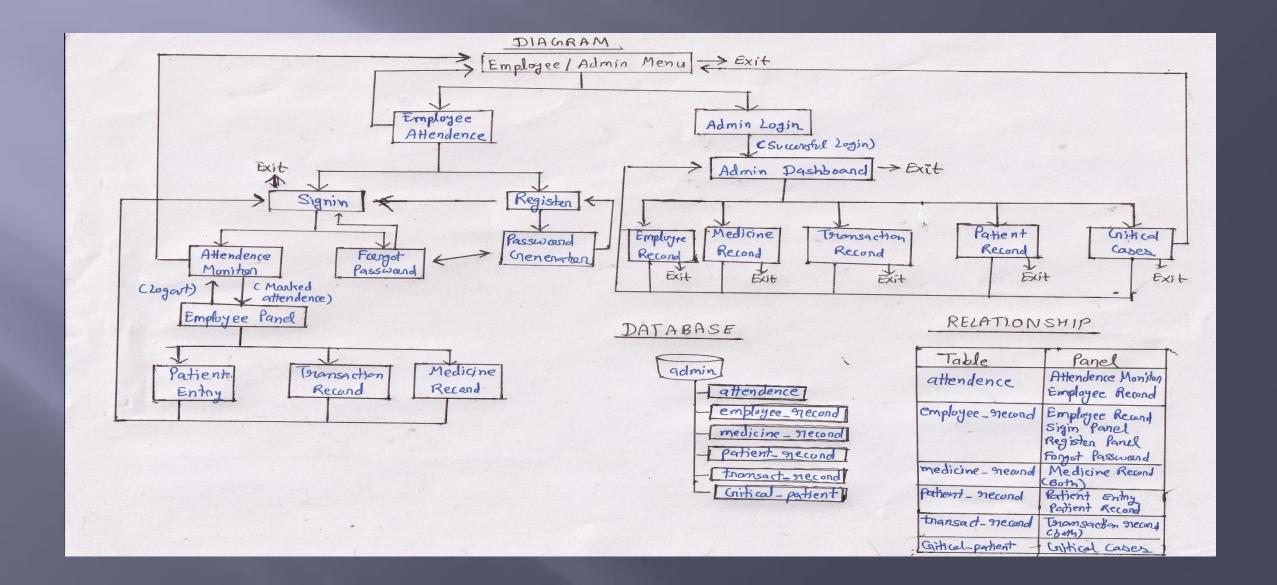
#### TRANSACTION RECORD

```
MariaDB [admin]> desc transact record;
 Field
                            | Null | Key | Default | Extra
               Type
 TransactionID | varchar(30)
                             YES
                                     UNI
                                           NULL
                double(10,3) YES
 Cost
                                           NULL
 Discount
                double(10,3) YES
                                           NULL
 Date
                date
                              YES
                                           NULL
4 rows in set (0.055 sec)
MariaDB [admin]> insert into transact_record values("TID01","65","0","2020-11-15");
Query OK, 1 row affected (0.111 sec)
MariaDB [admin]> select * from transact record;
 TransactionID | Cost | Discount | Date
 TID01 | 65.000 | 0.000 | 2020-11-15
1 row in set (0.000 sec)
```

#### CRITICAL PATIENT RECORD

```
MariaDB [admin]> desc critical patient;
 Field
            Type | Null | Key | Default | Extra
 PatientID |
             varchar(30) | YES
                                  UNI
                                       NULL
             varchar(30)
                           YES
                                        NULL
 Name
             double(10,3)
 Cost
                          YES
                                       NULL
 Date
             date
                          YES
                                       NULL
4 rows in set (0.109 sec)
MariaDB [admin]> insert into critical patient values("PID01","ABC","1000","2020-11-15");
Query OK, 1 row affected (0.082 sec)
MariaDB [admin]> select * from critical patient;
 PatientID Name Cost
                              Date
 PID01
           ABC | 1000.000 | 2020-11-15
1 row in set (0.000 sec)
```

### ER DIAGRAMI AND DATABASE



#### NOTE

- This is a provisional ppt of my project. I haven't shown the coding part due to privacy. I have started this project on 2020-08-25 and finished on 2020-11-15. It took 83 days to complete.
- This is a solo project, I used 12th class concepts and got some help from Internet. I understood all the concepts used in this project, that are, Java Basics, MySQL and their connectivity.
- The executable (.exe) file installer of the project is also made to separate the application from IDE. Cloud SQL can be used instead of localhost to make it universal to any Windows Machine. For now, I have used localhost.

