# **Project Title: H R Management System**



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#### **CONTENTS**

- 1. Abstract
- 2. Functional Requirements of the System
  - 2.1. ETest
  - 2.2. Employee
  - 2.3. HR
  - 2.4. Career
- 3. Use Cases
- 4. Actors
  - 4.1. Admin
  - 4.2. Employee
- 5. Use Case Description
  - 5.1. Identifying Authentication
  - 5.2. Employee Registration
  - 5.3. Recruitment
  - 5.4. Question Entry
  - 5.5. Training Data
  - 5.6. Test Details
  - 5.7. Salary Details
  - 5.8. Send & Receive Messages
- 6. Use Case Diagram
- 7. Class Diagram
- 8. GUI
  - 8.1. Configuring Database
  - 8.2. Login
  - 8.3. Profile
  - 8.4. Add Employee
  - 8.5. Update Employee
  - 8.6. Search Employee
  - 8.7. Remove Employee
  - 8.8. Promotions
  - 8.9. Queries
  - 8.10. Training Details
- 9. Tools Used in Front End and Back End
  - 9.1. Front End Design
  - 9.2. Back End Design

H R Management System

**ABSTRACT** 

The project aims to develop a system which is being capable of elimination of all the problems

and become useful to the jobseekers. The Mission of Human resource management's mission

is to coordinate people within an organization to achieve the organization's goals.

The company needs to manage the entire job to be appointed and job seekers resumes details

in a faster manner so that the time is saved. The user must exercise full control over these

activities.

Finally, we can say that this system will not only automate the process but save the valuable

time of the manager or the admin, which can be well utilized buy his institute.

This will be an additional advantage and management of power based on their free time from

his normal duty. HRM is socially responsible for the needs, demands and challenges of the

society.

**Keywords:** - jobseekers, organization's goals, duty.

**Functional Requirements of the System** 

**E-Test:** 

1. Employee must be registered before attending the test.

2. Employee will be selected based on the result he gets.

**Employee:** 

1. Employee needs to login before using the application and to access their details,

company profile.

2. An employee can view their details, Salary details, Attendance details and

communications.

HR:

1. Employee must be registered, create a user profile to login.

2. The employee will be recruited based upon his question entry, communication, and

resume.

3. Based on the Employee performance salary will be decided.

3

#### Career:

1. Employee will first search job then he will be able to apply for a job.

#### Use cases

The USE CASES of H R Management System are: -

- 1.Identifying Authentication
- 2.Employee Registration
- 3.Recruitment
- 4. Question Entry
- 5. Training Data
- 6.Test Details
- 7. Salary Details
- 8.Send & Receive Messages

#### Actors

## **Employee:**

- 1. Employee is a person who first registers to the application and applies for the E-Test.
- 2. Employee can enter their attendance and view, send the messages to/from HR.

#### Admin (HR):

- 1. HR acts as a facilitator for services of each employee.
- 2. HR recruits the employee based on his/her performance and can add training details.
- 3. HR can view salary structure, details and can send messages and view them.

# **Use Case Description**

# Identifying Authentication

Use case ID	Identifying Authentication
Brief description	The user can get access to the system using username and password.
Primary actors	System user
Precondition	User must register with the system and should have a valid login credentials.
Post condition	Already not a registered user, register with the system or perform transactions if login attempt was successful.
Main success Scenario	If valid user, then display welcome message and give access to his/her account else return error message.
Actor Action	System Response
The user enters login credentials and clicks on login button.	Performs validation of login credentials. If valid user, provides access.
2. The user get access into the account main page.	
Alternate flow	2. If not a valid user, system returns error message.

## Employee Registration

Use case ID	Employee Registration
Brief description	The new Employee provides personal details and his/her choice of course to the system
Primary actors	New Employee
Precondition	The Employee must not have registered earlier. The application number can be used to find this.

Post condition	Employee gets registered
Main success Scenario	The Employee gets confirmation of enrolment
Actor Action	System Response
The new Employee uses on screen enrolment form to input personnel details.	Present a menu of the subject areas in the H     R Management.
2.Clicks on the chosen Company	2.Presents a menu of jobs in the chosen company.
3.Clicks on the chosen job	3.Display the job Details
4.Uploads the relevant Details needed	
5.Clicks on print button and get the print of	
the Application.	
Alternate flow	If Not Eligible for Registration Show Error
	Message on the screen.

## Recruitment

Use case ID	Recruitment
Brief description	Hiring employees based on their performance.
Primary actors	Admin (HR)
Precondition	Employee must be registered and qualified before getting recruited.
Post condition	Employee gets recruited.
Main success Scenario	The employees get confirmation about his/her job
Actor Action	System Response
1. Entering Employee details in resume.	2. Will display if he/she is qualified to apply for the job.
Alternate flow	Admin was unable to view the resume.

# Question entry

Use case ID	Question entry
Brief description	Questions will be displayed, and admin can question E-Test.
Primary actors	Employee, Admin
Precondition	Employees must be registered before.
Post condition	Employees know whether qualified or not.
Main success Scenario	Result scored in the E-Test
Actor Action	System Response
1. Employee will start the E-Test	2. Present a menu of the exam and questions will be displayed.
3. Employee will answer the questions and submit the test	4. Will be redirected to submitted page.
Alternate flow	
	Admin can add/modify questions.

# Training Details

Use case ID	Training Details
Brief description	Employee can check their training details and admin can modify or add the details.
Primary actors	Employee- (check training details)  Admin- (Add training details)
Precondition	Employee must be recruited.
Post condition	Skills will be tested by HR

Main success Scenario	Employee will be successful in the testing round by HR.
Actor Action	System Response
1. Employee will click on Training details	2. Presents a menu of the Training details.
3.Admin can modify or add the details	4.Training Details will be updated and gets displayed.
Alternate flow	
	Employee not selected in the training round.

## Test Details

Use case ID	Test Details
Brief description	The employee can get access for Applying and then for taking Test.
Primary actors	System user, Admin
Precondition	Employee Must be already applied for the test and must is Eligible for Taking test.
Post condition	If not registered for test, If there is no Deadline he may register.
Main success Scenario	If valid user, then display the test Information Then Proceed to the next step.
Actor Action	System Response
The user enters login credentials and clicks on login button.	1.Performs validation of login credentials. If valid user, provides access.
2.The user may take the test if it is available.	2.If eligible then next steps are shown.
Alternate flow	
	If not a valid user, system returns error message.

# Salary Details

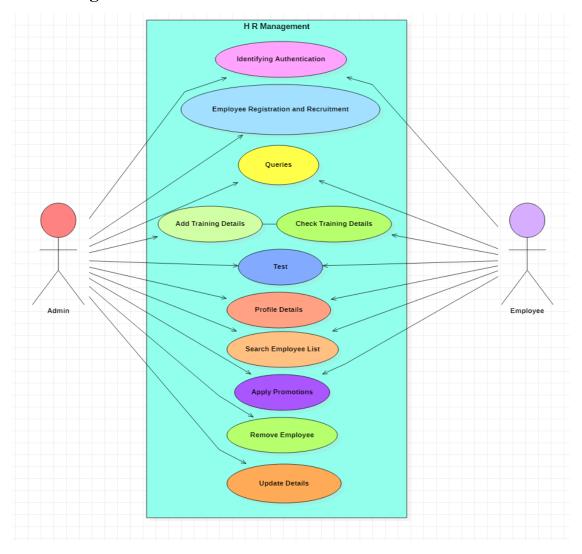
Use case ID	Salary Details
Brief description	The Salary details and Salary Structure is accessed by admin and Employee can only view them.
Primary actors	Admin
Precondition	User must register with the system and should have a valid login credentials and have a job.
Post condition	Already not with a job, apply for job and eligible for it.
Main success Scenario	If valid user, then the admin fixed details regarding the salary will be displayed on the screen.
Actor Action	System Response
The user enters login credentials and login and click on salary option to view.	1.Performs validation of login credentials and display the salary details.
Alternate flow	If not a valid user without job, system returns error message.

## Send & Receive Messages

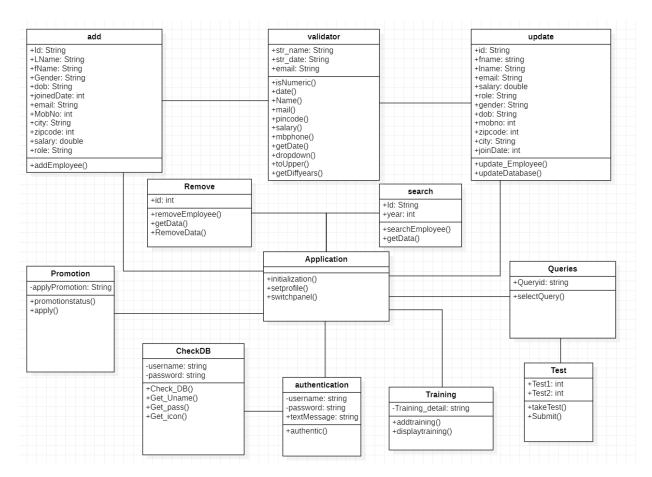
Use case ID	Send & Receive Messages
Brief description	The user can get access to the system using username and password.
Primary actors	System user, Admin
Precondition	User must register with the system and should have a valid login credentials.
Post condition	Already not a registered user, register with the system or perform transactions if login attempt was successful.

Main success Scenario	If valid user, then able to send and receive messages regarding any of their queries and request the salary increments and etc
Actor Action	System Response
1.The user enters login credentials and clicks on login button.	1.Performs validation of login credentials. If valid user, provides access.
2.The user get access into the account main page and click on messages.	2.Take the input and Send to the admin.
Alternate flow	If not a valid user, system returns error message.

# **Use case Diagram**



#### **CLASS DIAGRAM: -**



## **User Interface Design**

## First page

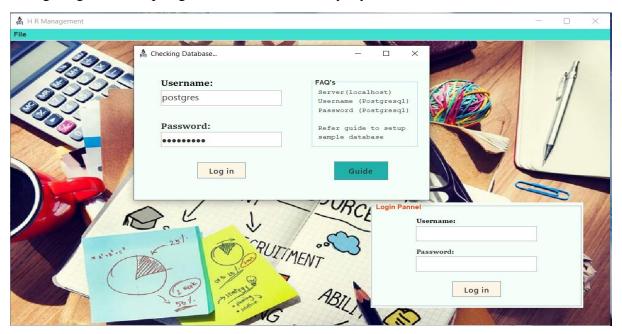


At top left corner we have file which has Configure database, help and exit features.

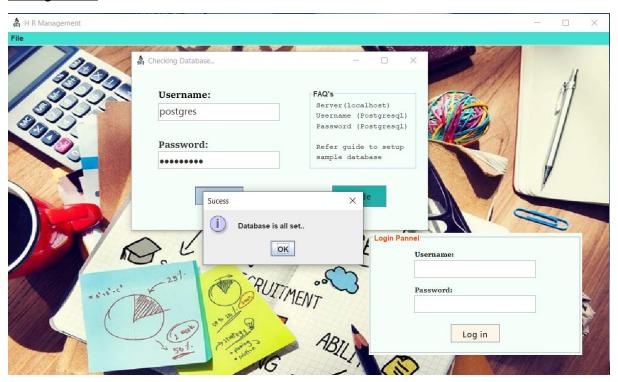
- •Configure database: To get access first employee must configure the database (connect with database we need to login using our postgres credentials).
- Help: Redirects us to GitHub. Exit: Ensures you to exit the page.

## **Database Configuration**

We have added database configuration panel that make sure we need not to change configuring details of postgres and acts as a security layer.



#### Configuration



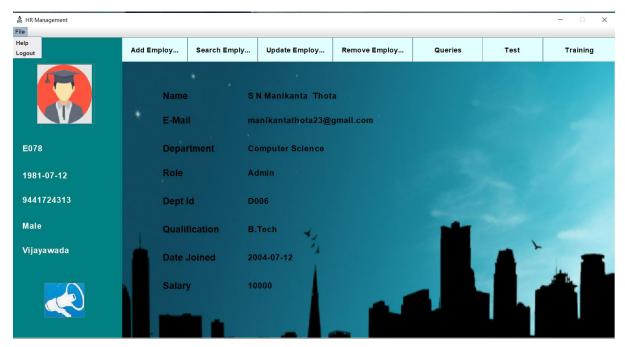
Login

Enter Username and Password.



## **Display Panel**

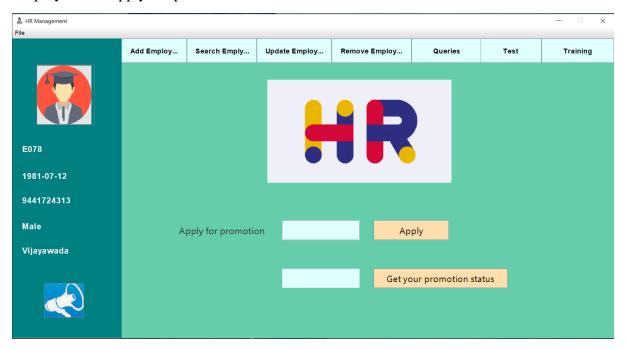
In profile we find the details of employee or admin



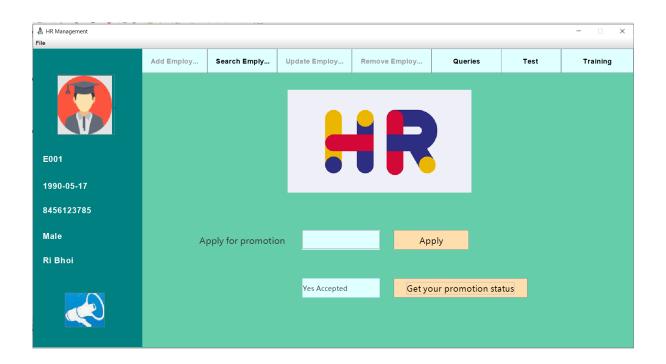
By clicking help it opens guide which redirects to GitHub account it is simple guide to get to know about our project details.

## **Promotion Panel**

Employee can Apply for promotion and wait for the status.



#### **Promotion Status**



#### Add Employee

#### \*Add or remove or update employees (only accessed by admin)

Admin can add the appropriate details according to the information given in use cases. There are some conditions for filling in the details.

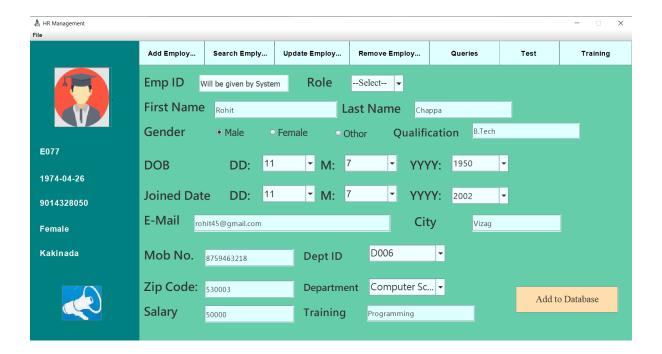
They are: (All these validations are shown by small dialogue box with respective errors)

- 1. The name must be greater than 3 characters.
- 2. There is date validator which validates date.
- 3. email should be in proper format like name@gmail.com which matches regex expression below

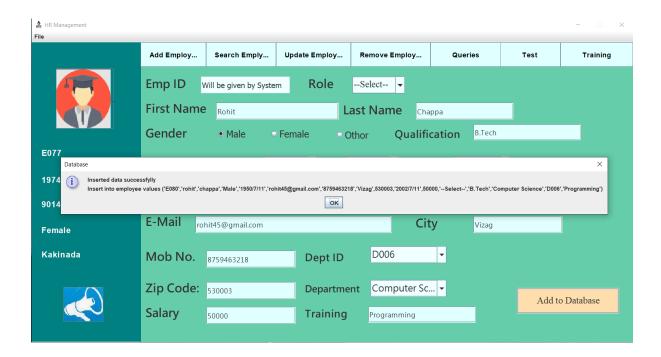
```
"^[\\w!#$%&'*+/=?`{|}~^-]+(?:\\.[\\w!#$%&'*+/=?`{|}~^-]+)*@(?:[a-zA-Z0-9-]+\\.)+[a-zA-Z]{2,6}$"
```

- 4. Mobile number must be exactly 10 numeric digits
- 5. Zip code must contain 6 numeric digits.
- 6. Salary validator which takes only numeric values.
- 7. And there is role validator which confirms weather role is selected or not.

The id is generated by system according to the data in the database

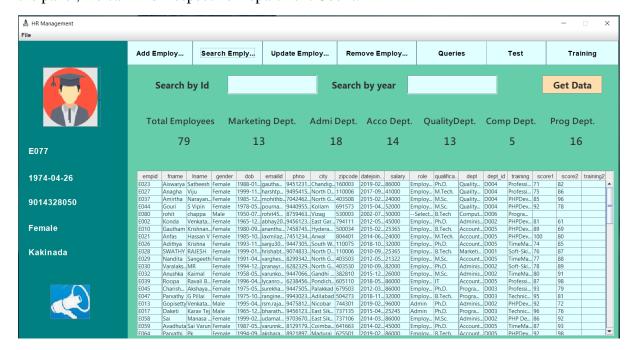


#### Successfully Added

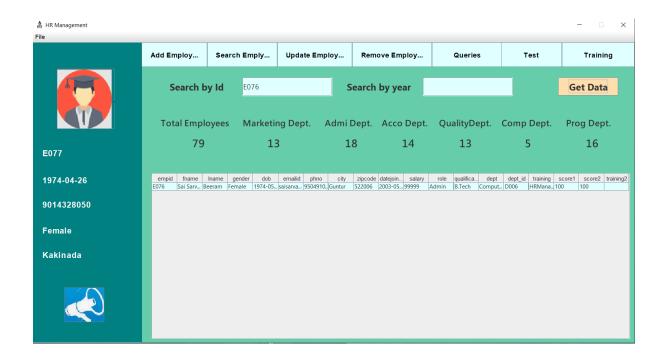


#### Search Employee

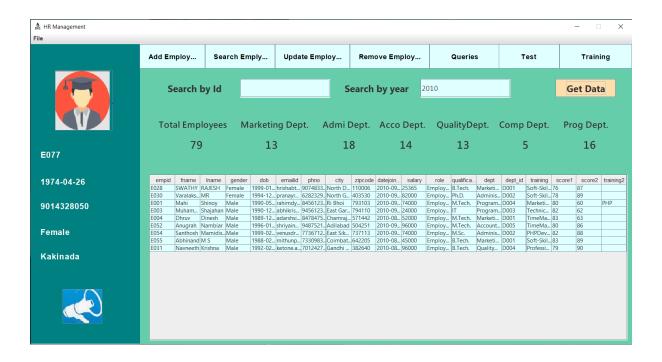
Employees or admin can search the details with the help of id or by date joined (year). And all the details of respective id or year will be displayed in the table below. In bottom side of the panel, we can find Respective Department Count.



#### Search Employee By ID

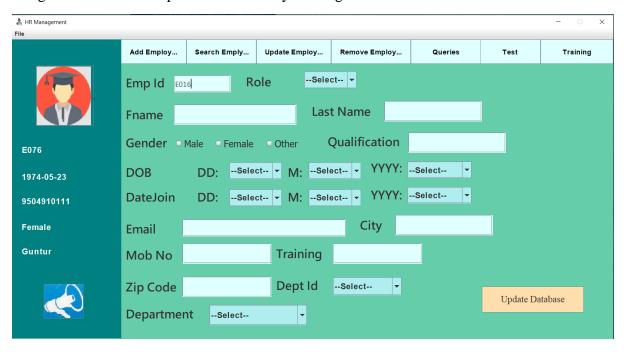


## Search Employee by Joined Year

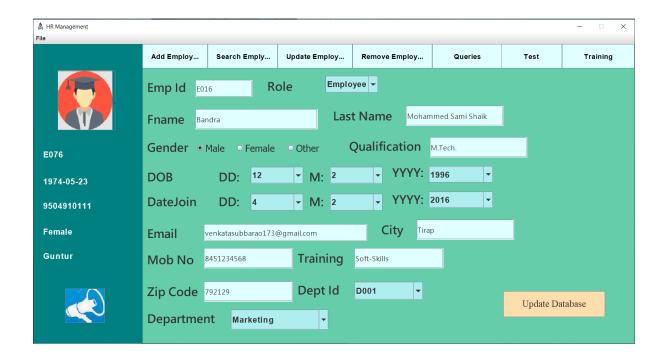


#### **Update** Employee

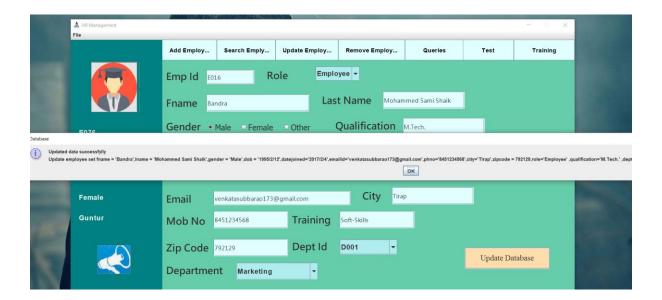
Admin can update the details of respective use cases. There are two features in Update. We can get the details of respective id either by moving the focus to another box



#### Update Employee Automatically Filled Data When ID is given



## Successfully Updated Employee

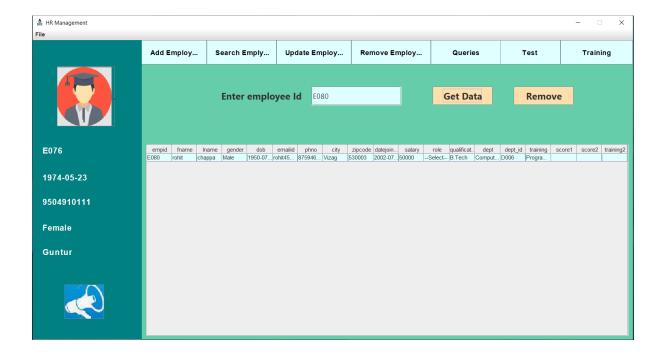


## Remove Employee

Admin can remove details in use case by giving id. Before removing, employees or admin can check the details of respective id in the table given below and confirm whether to remove or not by verifying with dialogue box.

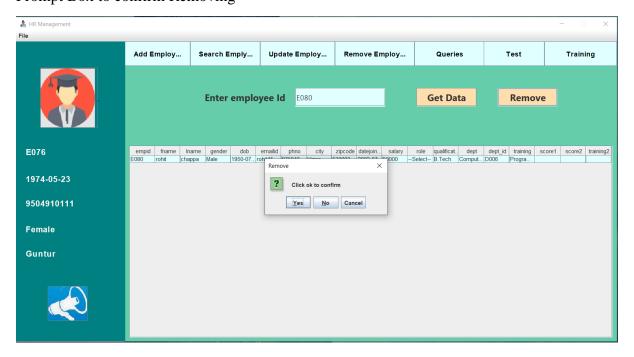


## Remove Employee by ID



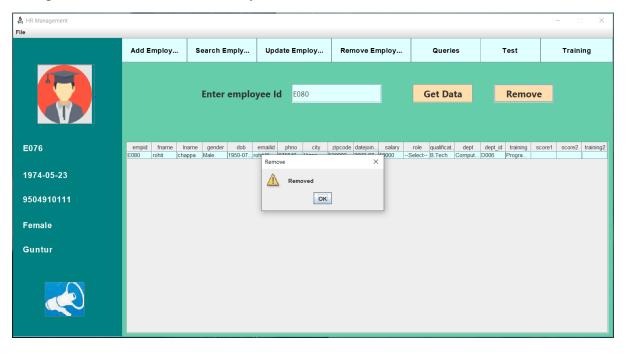
## Remove Employee

## Prompt Box to confirm Removing



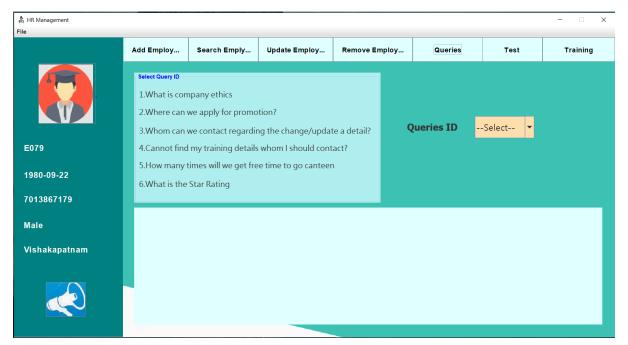
## Successfully Removed Employee

Prompt Box for removed Successfully.

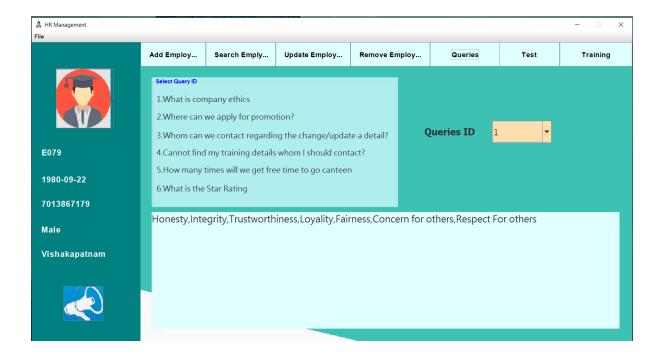


#### Queries

Select the Query question Number to display its Solution.



## Successfully Returned Queries Ans

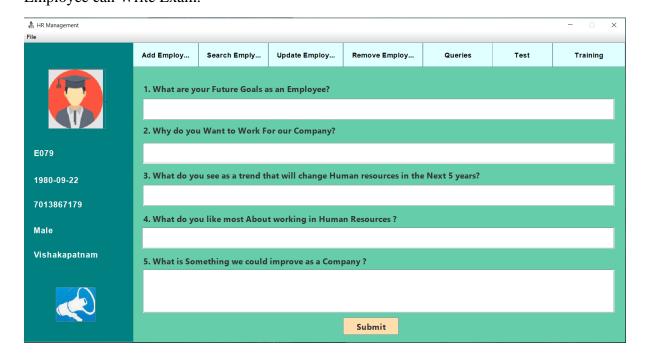


#### **Test Details**

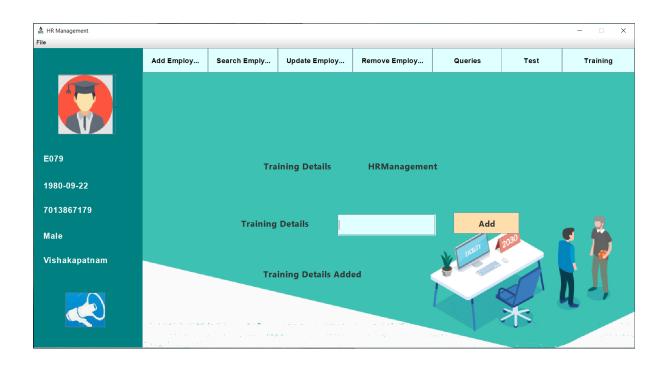
## Two Test Scores are Displayed



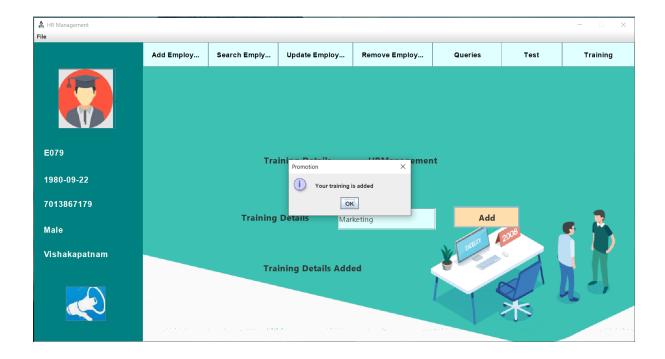
<u>Test</u> Employee can Write Exam.



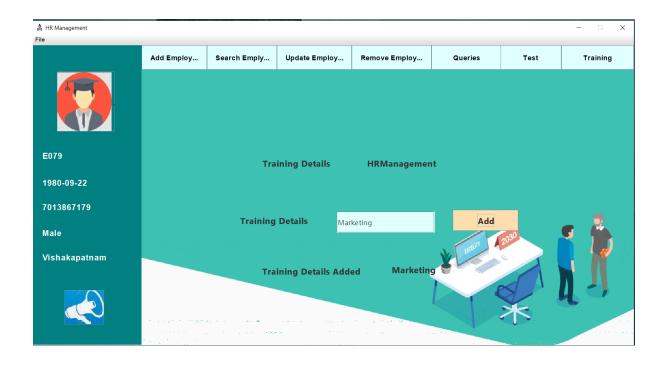
## **Training**



## Training Details Added Successfully

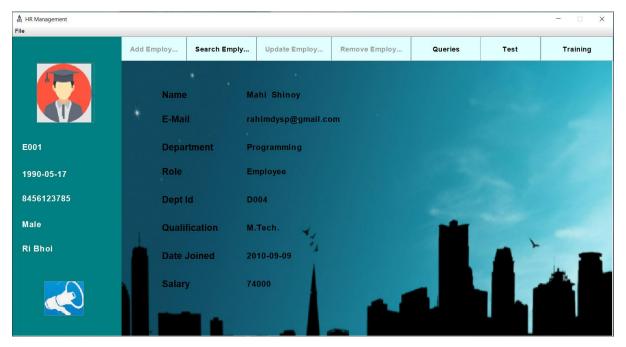


## Training Details Added Successfully and Displayed

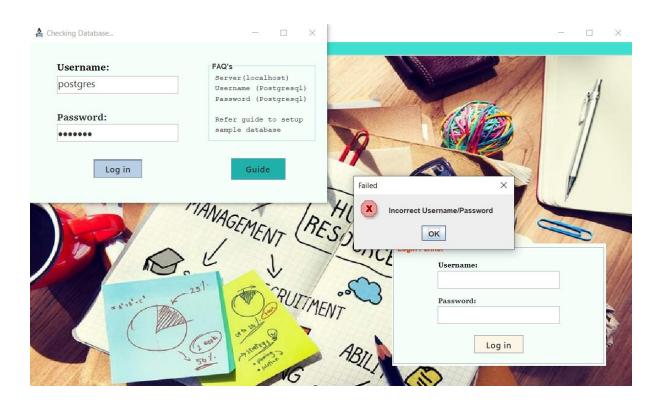


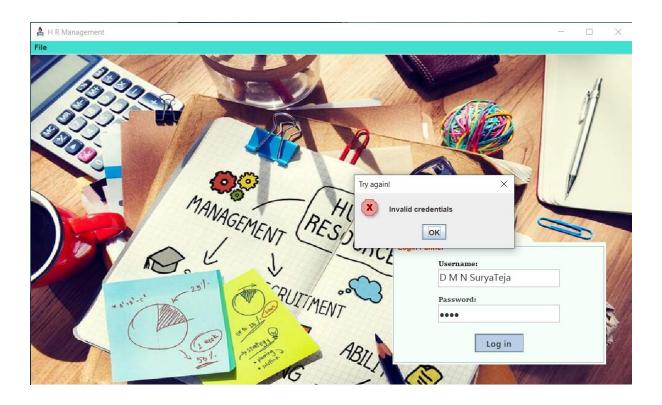
## Employee Login Screen

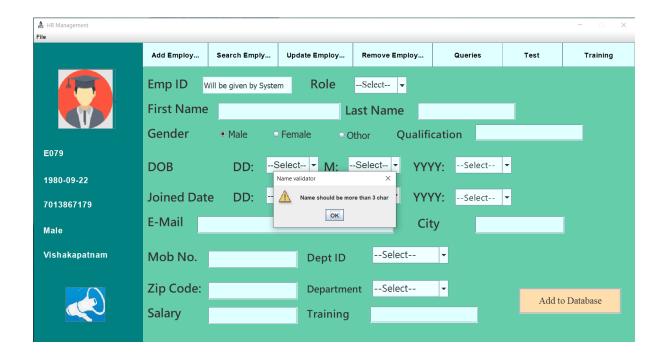
## No Add Employee, Remove Employee, Update Employee

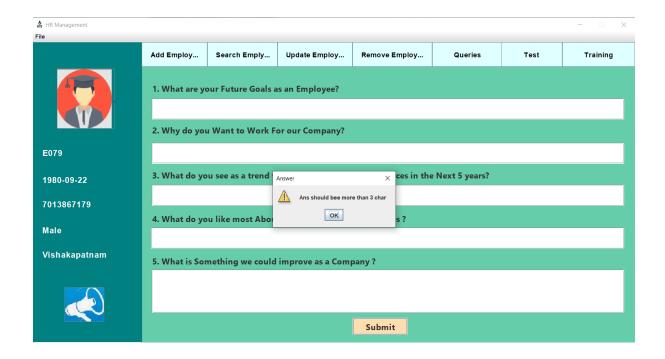


## Validators are Displayed if Incorrect Data is Entered









## **Tools Used in Front End and Back End**

Front End	
1.Eclipse	
Back End	

1.pgadmin

#### **Tables Schema**

 $\label{lem:problem} \textbf{Employee} (empid, fname, lname, gender, dob, emailid, phno, city, zipcode, datejoined, salary, role, qualification, dept, dept_id, training, score1, score2, training2);$ 

Qualification(id,promo,adm);

Query(id,ans);

**Test**(id,ans1,ans2,ans3,ans4,ans5);

-----Thanking You-----