

## Group 5: Employee Management System

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## 1. Introduction

A database is a collection of information that is organized so that it can be easily managed to be accessed, modified and updated. It is used to store the data in a pre-determined, structured way which helps in organized data update and retrieval process. The software systems used for creating and managing these databases to perform create, read, update and delete (CRUD) operations on the data is known as Database Management System(DBMS). It manages the data by allowing the database engine to access and modify the database schema and acts as an intermediary between database users and operations systems. Spreadsheets, XML databases and Microsoft Access, SQL server are some examples of database and database management systems respectively. With database management systems, there is little programming and development times with low system administration. It also provides solid security and data sharing over the conventional file systems. With the use of database management systems in p, there is very less chance of data becoming obsolete and provides the facility for different tools from third party vendors to gain access to the data and process them.

Our project involves creating a database of employees for an organization and provide an appraisal or grading system for the organization to evaluate the performance of the employees over time. It involves performing create, read, update and delete (CRUD) operations on the data of employees. The application contains employee and their department details which will be used for appraisal or grading system. The technologies used to develop and implement this application are Java classes for business logic implementation, HTML with Java Server pages for creating web pages with input of records to the database and Java Script for field validation. A front end graphical user interface is used to populate the fields in the application with stylesheets used to set the visual style of web pages and interface for the users that present a view of the application to the users. The implementation includes integrating dynamically generated webpages using HTML and JSP with Java classes. The login page provides interface to login for administrator and employee in the web page. The application displays three tabs in the home page; Home, Administration login and Employee login. Logging in as an employee allows only the displaying of details without any privileges to modify the data entered by the administrator.

## 2. Plans/Requirement Analysis

Our plan is to develop an Employee Management Application, used to manage employees, in Recruitment process, Project Management, and Client Management processes within the organization. The existing system requires lot of manual intervention in integrating data and management of day-to-day activities. Since the organization was maintaining different systems for Human Resource Management, Project Management, and Client Management processes. Searching and tracking of information took more time and the entire system was convoluted. Requirement analysis was done by exploring the available development, testing environments and techniques. Simultaneously database analysis and design was done to integrate with Graphical User Interface (GUI) application. The new database system must be able to integrate the employee details across different departments and provide comprehensive solution for data integrity and data search.

**Functional Specification:**

User Specification:

- Administrator
- Employee

Administrator:

- Administrator can create, read, update and delete employees and departments.
- Administrator can also provide appraisal ratings and alter the salary depending on the ratings.

Employee:

- Employee can only view his details under view information screen after logging.

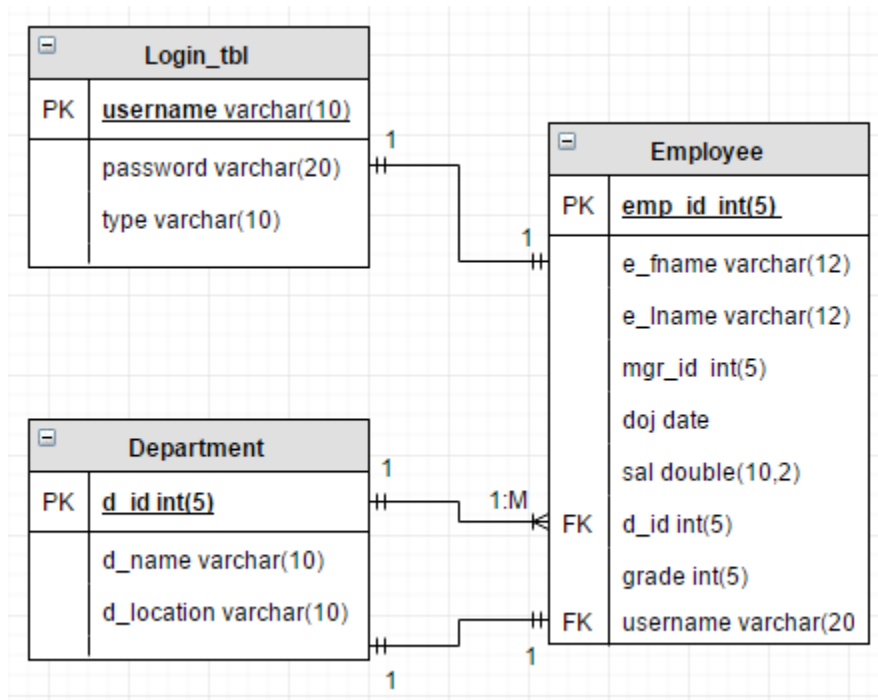
**Module Specification:**

There are three modules,

- Employee
- Department
- Appraisal Management

**3. Database Design**

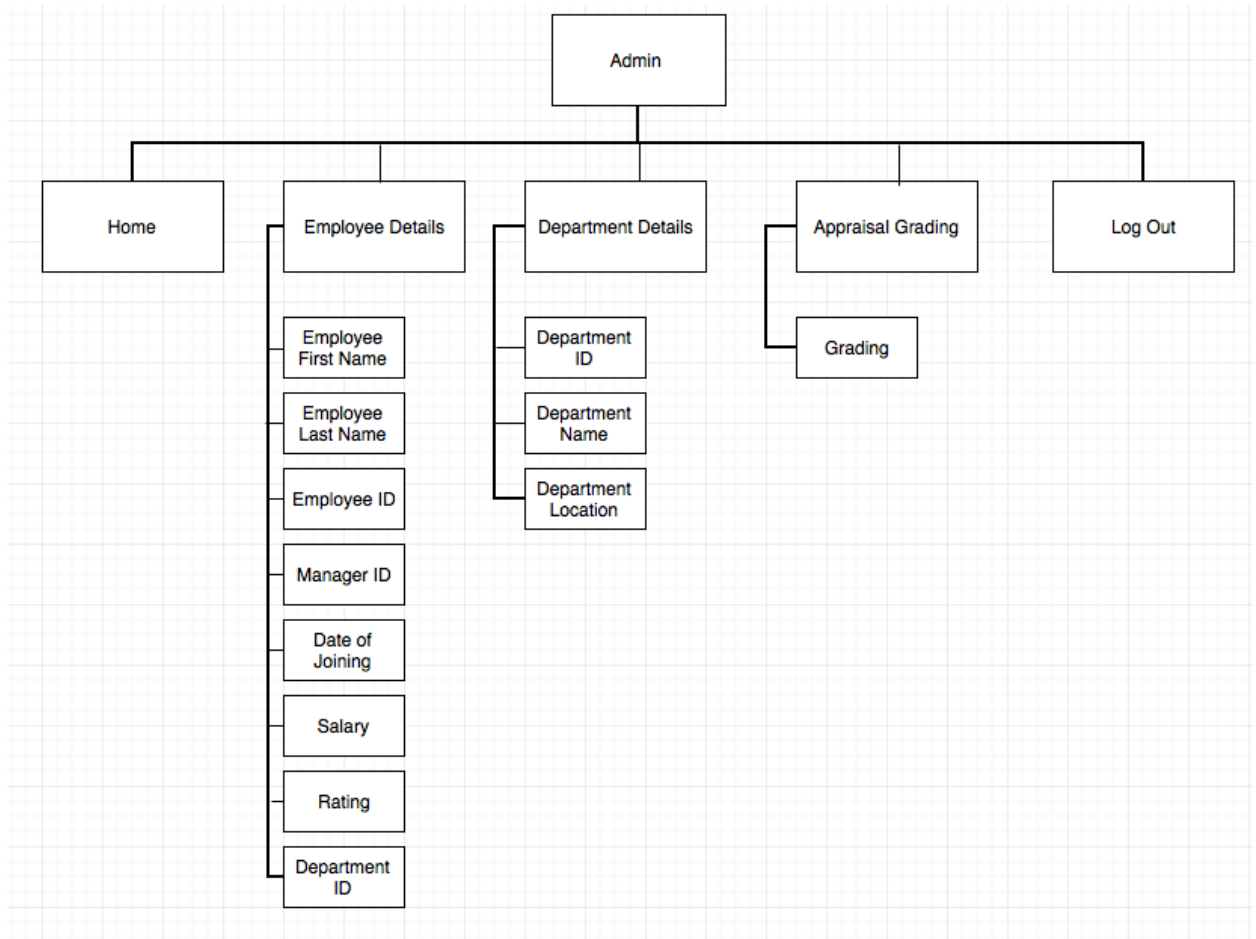
Physical Data Model



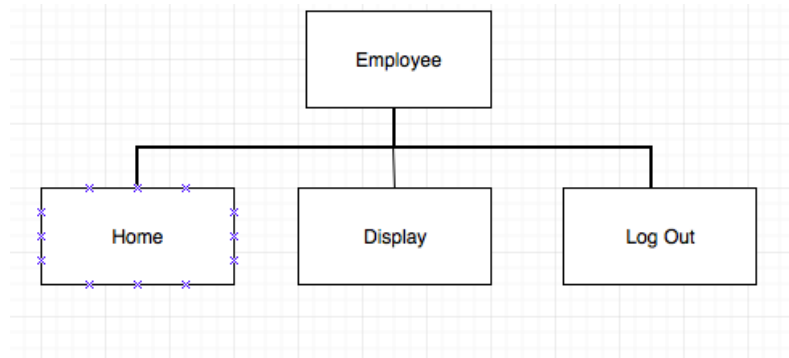
## 4. Application Design

### Process Flow:

#### 1. For Admin user



## 2. For Employee user



The employee management system application launches in a web browser featuring the login pages for the admin and employee users. The users as admin will be able to perform CRUD operations on the employee details. There is also an appraisal grading system for the employees which works on basis of set ratings on scale of 1-5 provided by the employee's manager and the appraisal system increases the employee's salary based on those ratings provided. The admin can also alter the details of departments to which the employees belong to and perform CRUD operations as well.

## 5. Demo

### Database creation (DB name - jaswanth)

```
Select MySQL 5.7 Command Line Client
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 243
Server version: 5.7.16-log MySQL Community Server (GPL)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> create database jaswanth;
Query OK, 1 row affected (0.06 sec)

mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| jas db |
| jaswanth |
| jaswanth_database |
| jaswanth_sql_database |
| mysql |
| performance_schema |
| sakila |
| sys |
| world |
+-----+
10 rows in set (0.00 sec)

mysql> use jaswanth;
Database changed
mysql>
```

**Tables creation:****1. Login\_tbl**

```
mysql> CREATE TABLE login_tbl (
  ->   username varchar(20) NOT NULL,
  ->   password varchar(20) default NULL,
  ->   type varchar(10) default NULL,
  ->   PRIMARY KEY (username)
  -> );
Query OK, 0 rows affected (0.47 sec)

mysql> desc login_tbl;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| username   | varchar(20)   | NO   | PRI | NULL     |       |
| password   | varchar(20)   | YES  |     | NULL     |       |
| type       | varchar(10)   | YES  |     | NULL     |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.04 sec)
```

**2. Department**

```
mysql> CREATE TABLE department (
  ->   d_id int(5) NOT NULL,
  ->   d_name varchar(10) default NULL,
  ->   d_location varchar(10) default NULL,
  ->   PRIMARY KEY (d_id)
  -> );
Query OK, 0 rows affected (0.34 sec)

mysql> desc department;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| d_id       | int(5)        | NO   | PRI | NULL     |       |
| d_name     | varchar(10)   | YES  |     | NULL     |       |
| d_location | varchar(10)   | YES  |     | NULL     |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

### 3. Employee

```
MySQL 5.7 Command Line Client

mysql> CREATE TABLE employee (
->   e_fname varchar(12) default NULL,
->   e_lname varchar(12) default NULL,
->   emp_id int(5) NOT NULL,
->   mgr_id int(5) NOT NULL,
->   doj date default NULL,
->   sal double(10,2) default NULL,
->   d_id int(5) default NULL,
->   grade int(5) default NULL,
->   PRIMARY KEY (emp_id),
->   KEY d_id (d_id),
->   CONSTRAINT employee_ibfk_1 FOREIGN KEY (d_id) REFERENCES department (d_id)
-> );
Query OK, 0 rows affected (0.56 sec)

mysql> alter table employee add column username varchar(20);
Query OK, 0 rows affected (0.77 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> alter table employee add constraint un_fk_cnst foreign key (username) references login_tbl(username);
Query OK, 0 rows affected (1.14 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> desc employee;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| e_fname | varchar(12) | YES | | NULL | |
| e_lname | varchar(12) | YES | | NULL | |
| emp_id | int(5) | NO | PRI | NULL | |
| mgr_id | int(5) | NO | | NULL | |
| doj | date | YES | | NULL | |
| sal | double(10,2) | YES | | NULL | |
| d_id | int(5) | YES | MUL | NULL | |
| grade | int(5) | YES | | NULL | |
| username | varchar(20) | YES | MUL | NULL | |
+-----+-----+-----+-----+-----+-----+
9 rows in set (0.00 sec)
```

### Application Homepage

**IIT GRADS**

**EMPLOYEE MANAGEMENT SYSTEM**

Home EMPLOYEE LOGIN ADMIN LOGIN

Hello!

WELCOME TO EMPLOYEE MANAGEMENT APPLICATION

This application provides information on Employee Management and their appraisal details.

Access roles for users are:

- CRUD Operations for Admin Login and
- Display access for Employee Login

**Entertainment**

- Video
- Music
- Shopping

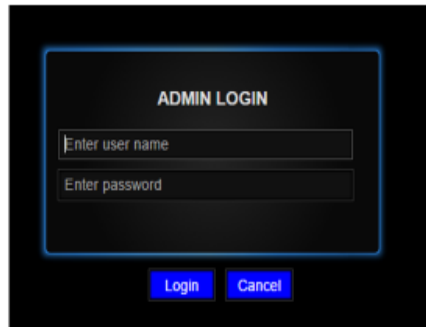
**Contact**

**IIT Grads**  
 Address : Illinois Institute of Technology  
 3300 S Federal St, Chicago, IL 60616  
 E-mail : jagadeesh@hawk.iit.edu  
 Phone : +1 312 721-9174

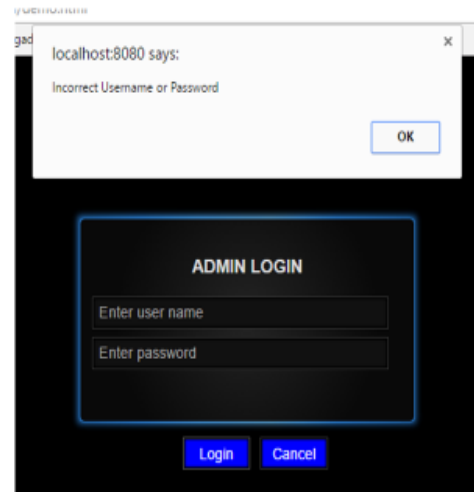
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**Admin Page Login**

## Error trapping under Login Page



A screenshot of the Admin Login form. The form is titled "ADMIN LOGIN" and is enclosed in a blue border. It contains two input fields: "Enter user name" and "Enter password". Below the input fields are two buttons: "Login" and "Cancel".



A screenshot of the Admin Login form with an error message displayed. The error message is shown in a white dialog box with the title "localhost:8080 says:" and the text "Incorrect Username or Password". The dialog box has an "OK" button. The Admin Login form is visible in the background, showing the "ADMIN LOGIN" title, input fields for "Enter user name" and "Enter password", and "Login" and "Cancel" buttons.



**Successful login to Admin Page**

The screenshot displays the IIT GRADS Employee Management System interface. At the top, a green banner features the IIT GRADS logo and a photograph of three professionals. Below the banner is a navigation bar with the following links: Home, Appraise Employee, Insert, Delete, Display, Update, and Logout. The main content area is titled "Hello Admin!" and includes a "WELCOME" section with a scrollable text block about the Illinois Institute of Technology. To the right, there are two sidebar sections: "Entertainment" with links for Video, Music, and Shopping, and "Contact" with IIT Grads contact information. The footer contains copyright information and links to About us and Services.

**IIT GRADS**

*EMPLOYEE MANAGEMENT SYSTEM*

Home Appraise Employee Insert Delete Display Update Logout

Hello Admin!

▼ WELCOME

Illinois Institute of Technology is a private, technology-focused research university offering undergraduate and graduate degrees in engineering, science, architecture, business, design, human sciences, applied technology, and law. One of 21 institutions that comprise the Association of Independent Technological Universities (AITU), Illinois Tech offers exceptional preparation for professions that require technological sophistication, an innovative mindset, and an entrepreneurial spirit. Illinois Institute of Technology offers outstanding undergraduate, graduate, and certificate programs in Information Technology & Management (ITM). With 12 specializations that target specific careers, and more than 100 courses, the program offers unparalleled breadth and depth.

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**Entertainment**

- Video
- Music
- Shopping

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**Insert Tab**

**IIT GRADS**

MANAGEMENT SYSTEM

Home Appraise Employee Insert Delete Display Update Logout

**REGISTRATION FORM**

Employee Department

**Entertainment**

- Video
- Music
- Shopping

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**Insert Employee Details**



# IIT GRADS



## EMPLOYEE MANAGEMENT SYSTEM

[Home](#) [Appraise Employee](#) [Insert](#) [Delete](#) [Display](#) [Update](#) [Logout](#)

### WELCOME TO EMPLOYEE REGISTRATION FORM

Enter Employee Details

Enter First Name	<input type="text"/>
Enter Last Name	<input type="text"/>
Enter Employee ID	<input type="text"/>
Enter Manager ID	<input type="text" value="0"/>
Enter Date Of Joining	<input type="text" value="mm/dd/yyyy"/>
Enter Salary(per month)	<input type="text"/>
Enter Job Grade(between 1 and 5)	<input type="text"/>
Enter Department ID	<input type="text"/>
<input type="button" value="REGISTER"/>	

Entertainment

[Video](#)  
[Music](#)  
[Shopping](#)

Contact

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**Insert Department Details**

 **IIT GRADS**

**EMPLOYEE MANAGEMENT SYS1**

[Home](#) [Appraise Employee](#) [Insert](#) [Delete](#) [Display](#) [Update](#) [Logout](#)

**WELCOME TO DEPARTMENT REGISTRATION FORM**

**Enter Department Details**

Enter Name

Enter ID

Enter location

REGISTER

 **Entertainment**

[Video](#)  
[Music](#)  
[Shopping](#)

 **Contact**

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**Field level validation check**

Institute of Tec M Inbox - jjagadeesh

localhost:8080 says:  
please enter the first name

OK

Home Appraise Employee Insert Delete Display Update Logout

WELCOME TO EMPLOYEE REGISTRATION FORM

Enter Employee Details	
Enter First Name	<input type="text"/>
Enter Last Name	<input type="text"/>
Enter Employee ID	<input type="text"/>
Enter Manager ID	<input type="text" value="0"/>
Enter Date Of Joining	<input type="text" value="mm/dd/yyyy"/>
Enter Salary(per month)	<input type="text"/>
Enter Job Grade(between 1 and 5)	<input type="text"/>
Enter Department ID	<input type="text"/>
<input type="button" value="REGISTER"/>	

**Entertainment**

- Video
- Music
- Shopping

**Contact**

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**Field level validation check**

The screenshot shows a web application for an Employee Management System. A modal dialog box is displayed over the registration form, indicating a validation error. The dialog box contains the text: "localhost:8080 says: please enter the valid employee id". Below this text is a checkbox labeled "Prevent this page from creating additional dialogs." and an "OK" button.

The background page is titled "WELCOME TO EMPLOYEE REGISTRATION FORM". It features a navigation bar with links: Home, Appraise Employee, Insert, Delete, Display, Update, and Logout. The main content area contains a form titled "Enter Employee Details" with the following fields:

Enter Employee Details	
Enter First Name	test
Enter Last Name	test
Enter Employee ID	
Enter Manager ID	0
Enter Date Of Joining	mm/dd/yyyy
Enter Salary(per month)	
Enter Job Grade(between 1 and 5)	
Enter Department ID	
<input type="button" value="REGISTER"/>	

On the right side of the page, there is a sidebar with links: Entertainment, Video, Music, Shopping, and Contact. Below these links, there is a section titled "IT Grade" with the following information:

IT Grade  
Address : Illinois Institute of Technology  
3300 S Federal St, Chicago, IL 60616  
E-mail : jjagadeesh@hawk.iit.edu  
Phone : +1 312 731-9174

The footer of the page contains the text: "© Copyright 2016. Designed by ITM Students" and "About us | Services".

**Delete Tab**

The screenshot displays the IIT GRADS Employee Management System interface. At the top, there is a green header with the IIT GRADS logo and a banner image of three people. Below the banner is a navigation bar with tabs: Home, Appraise Employee, Insert, Delete, Display, Update, and Logout. The 'Delete' tab is currently selected. The main content area is titled 'DELETION FORM' and contains two input fields labeled 'Employee' and 'Department'. To the right of the form, there is a sidebar with links to 'Entertainment' (Video, Music, Shopping) and 'Contact'. At the bottom, there is a footer with copyright information and links to 'About us' and 'Services'.

**IIT GRADS**

**EMPLOYEE MANAGEMENT SYSTEM**

Home Appraise Employee Insert **Delete** Display Update Logout

**DELETION FORM**

Employee Department

**Entertainment**

- Video
- Music
- Shopping

**Contact**

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## Delete Employee Details

The screenshot displays the IIT GRADS Employee Management System interface. At the top, there is a green banner with the IIT GRADS logo and the text "EMPLOYEE MANAGEMENT SYSTEM". Below the banner is a navigation bar with buttons: Home, Appraise Employee, Insert, Delete, Display, Update, and Logout. The main content area is titled "WELCOME TO EMPLOYEE DELETING FORM". It contains a text input field labeled "Enter Employee ID to Delete" and an "Enter" button. On the right side, there is a sidebar with a section titled "Entertainment" containing links for Video, Music, and Shopping. Below this is a "Contact" section with the IIT Grads logo and contact information: Address : Illinois Institute of Technology, 3300 S Federal St., Chicago, IL 60818; E-mail : jgagadeesh@hawk.iit.edu; Phone : +1 312-731-9174.

**IIT GRADS**

**EMPLOYEE MANAGEMENT SYSTEM**

Home Appraise Employee Insert Delete Display Update Logout

**WELCOME TO EMPLOYEE DELETING FORM**

Enter Employee ID to Delete

Enter

**Entertainment**

- Video
- Music
- Shopping

**Contact**

**IIT Grads**  
Address : Illinois Institute of Technology  
3300 S Federal St., Chicago, IL 60818  
E-mail : jgagadeesh@hawk.iit.edu  
Phone : +1 312-731-9174



**Delete Department Details**

The screenshot displays the IIT GRADS Employee Management System interface. At the top, there is a green header with the IIT GRADS logo and the text "EMPLOYEE MANAGEMENT SYSTEM". Below the header is a navigation bar with buttons for Home, Appraise Employee, Insert, Delete, Display, Update, and Logout. The main content area is titled "WELCOME TO DEPARTMENT DELETING FORM". It features a text input field labeled "Enter Department ID to Delete" and an "Enter" button. On the right side, there is a sidebar with links for Entertainment, Video, Music, and Shopping, and a Contact section with the IIT Grads address, email, and phone number.

**IIT GRADS**

**EMPLOYEE MANAGEMENT SYSTEM**

Home Appraise Employee Insert Delete Display Update Logout

**WELCOME TO DEPARTMENT DELETING FORM**

Enter Department ID to Delete

**Entertainment**

- Video
- Music
- Shopping

**Contact**

**IIT Grads**  
Address : Illinois Institute of Technology  
3300 S Federal St, Chicago, IL 60616  
E-mail : jagadeesh@hawk.iit.edu  
Phone : +1 312-731-9174

## Display Tab



The screenshot displays the 'Display Tab' of the IIT GRADS Employee Management System. The header features the 'IIT GRADS' logo and a banner image of three professionals. Below the banner is a navigation bar with links: Home, Appraise Employee, Insert, Delete, Display (active), Update, and Logout. The main content area is titled 'DISPLAY FORM' and contains two input fields: 'Employee' and 'Department'. To the right of the form is a sidebar with a black 'Entertainment' button, a list of links (Video, Music, Shopping), a green 'Contact' button, and contact information for IIT Grade.

**IIT GRADS**

EMI

Home Appraise Employee Insert Delete Display Update Logout

**DISPLAY FORM**

Employee Department

**Entertainment**

- Video
- Music
- Shopping

**Contact**

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## Update Tab

The screenshot displays the 'Update' tab of the IIT GRADS Employee Management System. The header features the 'IIT GRADS' logo and a banner image of three professionals. A navigation bar includes links: Home, Appraise Employee, Insert, Delete, Display, Update, and Logout. The main content area is titled 'UPDATION FORM' and contains two input fields labeled 'Employee' and 'Department'. To the right, there are links for 'Entertainment' (with sub-links for Video, Music, and Shopping) and 'Contact'. The footer contains copyright information and links for 'About us' and 'Services'.

**IIT GRADS**

SYSTEM

Home Appraise Employee Insert Delete Display Update Logout

**UPDATION FORM**

Employee Department

**Entertainment**

- Video
- Music
- Shopping

**Contact**

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## Update Employee Details



# IIT GRADS



## EMPLOYEE MANAGEMENT SYSTEM

[Home](#) [Appraise Employee](#) [Insert](#) [Delete](#) [Display](#) [Update](#) [Logout](#)

### WELCOME TO EMPLOYEE UPDATING FORM

#### Enter Updated Employee Details

Enter Employee ID to update	<input type="text"/>
Enter Employee's Manager ID	<input type="text"/>
Enter Salary(per month)	<input type="text"/>
Enter Job Grade	<input type="text"/>
Enter Department ID	<input type="text"/>
<input type="button" value="UPDATE"/>	

 **Entertainment**

[Video](#)  
[Music](#)  
[Shopping](#)

 **Contact**

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**Validation check for Update employee tab**

Institute of Tec  Inbox - j Jagadeesh

localhost:8080 says:  
please enter the valid employee id

OK

# EMPLOYEE MANAGEMENT SYSTEM

Home   Appraise Employee   Insert   Delete   Display   Update   Logout

## WELCOME TO EMPLOYEE UPDATING FORM

### Enter Updated Employee Details

Enter Employee ID to update:	<input type="text"/>
Enter Employee's Manager ID:	<input type="text"/>
Enter Salary(per month):	<input type="text"/>
Enter Job Grade:	<input type="text"/>
Enter Department ID:	<input type="text"/>
<input type="button" value="UPDATE"/>	

### Entertainment

- Video
- Music
- Shopping

### Contact

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## Update Department Details

**IIT GRADS**

**EMPLOYEE APPRAISAL SYSTEM**

[Home](#) [Appraise Employee](#) [Insert](#) [Delete](#) [Display](#) [Update](#) [Logout](#)

**Enter Updated Department Details**  

Enter Name	<input type="text"/>
Enter ID	<input type="text"/>
Enter location	<input type="text"/>
<input type="button" value="UPDATE"/>	

**Entertainment**

[Video](#)  
[Music](#)  
[Shopping](#)

**Contact**

**IIT Grade**  
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## Appraise Employee Tab

The screenshot displays the 'Appraise Employee' tab of the IIT GRADS SYSTEM. The header features the 'IIT GRADS' logo and a banner image of three professionals. Below the header is a navigation bar with links: Home, Appraise Employee, Insert, Delete, Display, Update, and Logout. The main content area is titled 'WELCOME TO EMPLOYEE APPRAISAL FORM' and contains a text input field for 'Enter Employee ID to Appraise' with an 'Enter' button. To the right, there are links for 'Entertainment' (Video, Music, Shopping) and 'Contact'. A footer section provides contact information for IIT Grade, including address, email, and phone number. The bottom of the page has a copyright notice and links for 'About us' and 'Services'.

IIT GRADS

SYSTEM

Home Appraise Employee Insert Delete Display Update Logout

WELCOME TO EMPLOYEE APPRAISAL FORM

Enter Employee ID to Appraise

Enter

Entertainment

Video  
Music  
Shopping

Contact

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### Appraisal Module Functionality:

While creating the Employee details, admin will enter the employee ratings, the same will be reflected on employee's salary.

For example; If employee salary is \$10000 and rating is 5, then his new salary will be \$15000.

### Calculations:

Old Salary: \$10000

Rating: 5

New Salary = Old Salary + (0.5 \* Old Salary)

New Salary = \$15000



## Validation check for Employee Grade

The screenshot shows a web browser window with the address bar displaying `localhost:8080/Case_study-EMP_APPRAISAL_SYSTEM/InsertNew.html`. The browser tabs include "Image-less CSS3 Glowing" and "Employee Management". The page features a header with a navigation menu: Home, Appraise Employee, Insert, Delete, Display, Update, and Logout. Below the header, the main content area is titled "WELCOME TO EMPLOYEE REGISTRATION FORM".

The registration form is titled "Enter Employee Details" and contains the following fields:

- Enter First Name: Phanindra
- Enter Last Name: Chandraprakash
- Enter Employee ID: 9771
- Enter Manager ID: 2547
- Enter Date Of Joining: 09/27/2016
- Enter Salary(per month): 25000
- Enter Job Grade(between 1 and 5): 8
- Enter Department ID: 1

A validation error message is displayed below the Job Grade field: "Value must be less than or equal to 5." The "REGISTER" button is visible at the bottom of the form.

On the right side of the page, there is a sidebar with the following sections:

- Entertainment**: Video, Music, Shopping
- Contact**: IIT Grads, Address: Illinois Institute of Technology, 3300 S Federal St, Chicago, IL 60616, E-mail: jagadeesh@hawk.iit.edu, Phone: +1 312-731-9174

The footer of the page includes the copyright notice "© Copyright 2016. Designed by ITM Students" and links for "About us" and "Services". The Windows taskbar at the bottom shows the time as 9:38 PM on 12/6/2016.



Display Employee Tab

 IIT GRADS



EMPLOYEE MANAGEMENT SYSTEM

Home

Appraise Employee

Insert

Delete

Display

Update

Logout

WELCOME TO EMPLOYEE DISPLAYING FORM

EMPLOYEE ID	FIRST NAME	LAST NAME	DOJ	SALARY	MANAGER ID	RATING	DEPARTMENT ID
8771	Phanindra	Chandra	2016-06-01	37500	2547	5	1
8854	Jaswanth	busnur	2016-12-07	45000	2456	2	3
8999	Rahul	gudihal	2016-12-01	50000	1234	1	2

Entertainment

Video

Music

Shopping

Contact

IIT Grads

Address : Illinois Institute of Technology  
3300 S Federal St, Chicago, IL 60616

E-mail : jagadeesh@hawk.iit.edu

Phone : +1 312-731-9174

## Display Department Tab



[Home](#) [Appraise Employee](#) [Insert](#) [Delete](#) [Display](#) [Update](#) [Logout](#)

### WELCOME TO DEPARTMENT DISPLAYING FORM

DEPARTMENT ID	DEPARTMENT NAME	DEPARTMENT LOCATION
1	Testing	Bangalore
2	ITM	Chicago
3	SAT	PH

 **Entertainment**

[Video](#)  
[Music](#)  
[Shopping](#)

 **Contact**

**IIT Grads**  
Address : Illinois Institute of Technology  
3300 S Federal St, Chicago, IL 60616  
E-mail : [jjagadeeshi@hawk.iit.edu](mailto:jjagadeeshi@hawk.iit.edu)  
Phone : +1 312-731-9174

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### Employee Details after Appraising based on Grading



The screenshot displays the IIT GRADS Employee Management System interface. At the top, there is a green header with the IIT GRADS logo and the text "IIT GRADS". Below the header is a banner image showing three people in an office setting. The main navigation bar includes links: Home, Appraise Employee, Insert, Delete, Display, Update, and Logout. The central content area is titled "WELCOME TO EMPLOYEE DISPLAYING FORM" and features a table of employee details. To the right of the table, there are sections for "Entertainment" (with links for Video, Music, and Shopping) and "Contact" (with contact information for IIT Grads).

EMPLOYEE ID	FIRST NAME	LAST NAME	DOJ	SALARY	MANAGER ID	RATING	DEPARTMENT ID
9771	Phanindra	Chandra	2016-06-01	37500	2547	5	1
9854	Jaswanth	busnur	2016-12-07	54000	2456	2	3
9999	Rahul	gudihal	2016-12-01	50000	1234	1	2

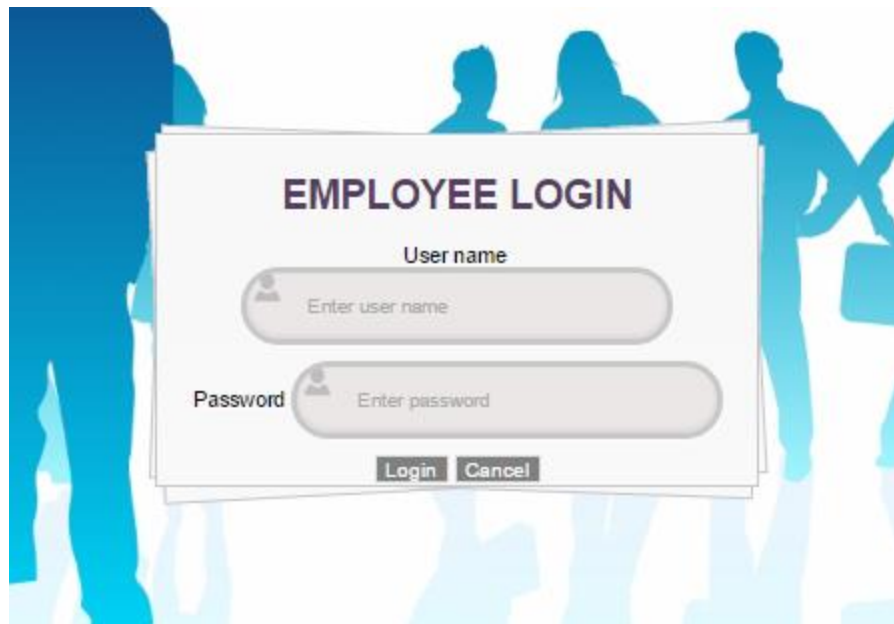
**Entertainment**

- Video
- Music
- Shopping

**Contact**

IIT Grads  
Address : Illinois Institute of Technology  
3300 S Federal St, Chicago, IL 60616  
E-mail : jagadeesh@hawk.iit.edu  
Phone : +1 312-731-9174

### Employee Login Page



**EMPLOYEE LOGIN**

User name

Enter user name

Password

Enter password

Login Cancel

### Employee Login Error Check



**EMPLOYEE LOGIN**

User name

jaswanth

Password

Enter password

Login C

Please fill out this field.

Welcome page for Employee Login. Specific user is displayed based on who is logs in

The screenshot displays the 'IIT GRADS' logo at the top left of a green header. A central banner features a green abstract background with the text 'EMPLOYEE MA' and a photo of three people. Below the banner is a dark navigation bar with 'Home', 'View Information', and 'Logout' links. The main content area is white and includes a personalized greeting 'Hello Jaswanth!'. A dropdown menu is open, showing 'WELCOME TO EMPLOYEE LOGIN PAGE' and a message: 'Here we provide you information based on which employee logs in to the application. You are provided with only display functionality for an employee type login.' To the right, there are two green buttons: 'Entertainment' (with a person icon) and 'Contact' (with a globe icon). Below these are links for 'Video', 'Music', and 'Shopping'. A footer section on the right provides contact details for 'IIT Grade', including the address '3300 S Federal St, Chicago, IL 60616', email 'jjagadeesh@iitwtk.itLedu', and phone '+1 312-731-9174'. The bottom of the page has a dark footer with '© Copyright 2016. Designed by ITM Students' on the left and 'About us | Services' on the right.

**IIT GRADS**

**EMPLOYEE MA**

Home View Information Logout

Hello Jaswanth!

▼ WELCOME TO EMPLOYEE LOGIN PAGE

**Here we provide you information based on which employee logs in to the application**

**You are provided with only display functionality for an employee type login.**

**Entertainment**

Video  
Music  
Shopping

**Contact**

**IIT Grade**  
Address : Illinois Institute of Technology  
3300 S Federal St, Chicago, IL 60616  
E-mail : jjagadeesh@iitwtk.itLedu  
Phone : +1 312-731-9174

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Employee Display form. Only specific information of the logged in employee is displayed

 IIT GRADS



EMPLOYEE MANAGEMENT

[Home](#) [Logout](#)

WELCOME TO EMPLOYEE DISPLAYING FORM

EMPLOYEE ID	FIRST NAME	LAST NAME	DOJ	SALARY	MANAGER ID	GRADE	DEPARTMENT ID
6854	Jaswanth	busnur	2016-12-07	54000.0	2456	2	3

 Entertainment

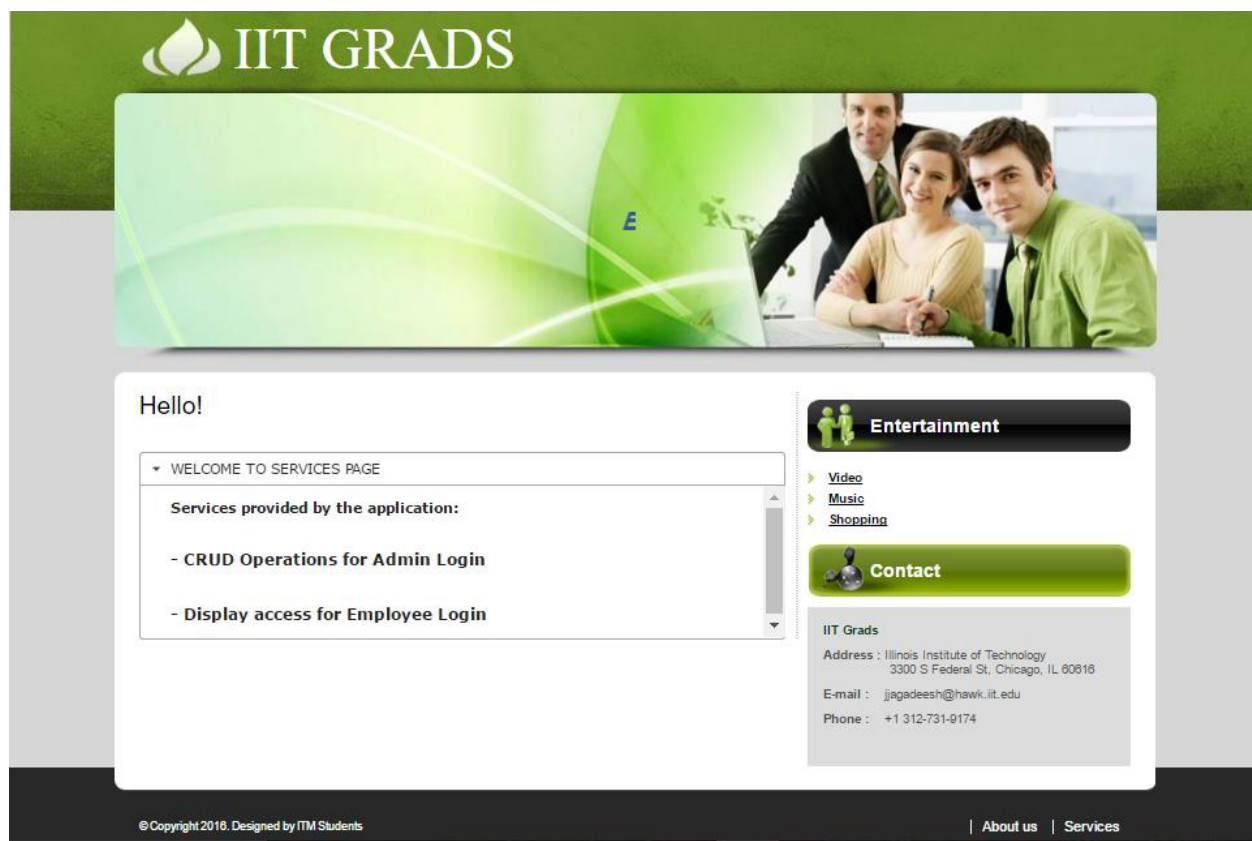
- Video
- Music
- Shopping

 Contact

IIT Grads  
Address : Illinois Institute of Technology  
3300 S Federal St, Chicago, IL 60616  
E-mail : [jjagadeesh@hawk.iit.edu](mailto:jjagadeesh@hawk.iit.edu)  
Phone : +1 312-731-9174



**HTML additional implementation (Accordion)**

**HTML additional implementation (Services to Links)**



## 6. Conclusions and Future Work

### 6.1. Conclusions

This report includes the information development which places emphasis on basic CRUD operative functions performed on the data in the employee database. This application helps an organization to perform the basic and essential function of recording the data of its employees, their functionalities and performances at all levels in its organizational structure. The application also provides a grading or appraisal program for the managers to rate the performance of the employees and claim their benefits in accordance with their ratings. With each passing day, every organization is forced to invest in resources for managing their staff and the employee management system application does just that to help the organization stay ahead in the business competition.

### 6.2. Limitations

- The appraisal method is subjected to the presence of Halo Effect in evaluation of the employees by the appraisers.
- There can be ambiguity in average ratings given to the employees by the top management.
- Complexity involved in defining description of events.
- Overtimes are added to the salaries.

### 6.3. Potential Improvements or Future Work

The future enhancements for employee management system include the option of raising complaints and suggestions from the employee side. It will also feature the attendance list for employees and managers with log in and log out times. It also includes integrating the pay roll system with the existing module for more reliability and flexibility in the code. It can be made to work as an online job portal for recruiting management.

#### **Improvements:**

- All the employee records will be computerized and include online management only.
- This system provides flexibility and integration for coding architecture.
- This system is more efficient and reliable and facilitates the organizations.
- It helps in preventing data manipulations and thereby reduces data redundancy.
- Employees information is managed efficiently by business intelligence and supplies real time information.

## 7. Appendix

### **Minimum Hardware Requirements:**

Client Side	Server Side
Processor: 1.5 GHz	Processor: 2.5 GHz
RAM: 2 GB	RAM: 8 GB
HDD: 252 GB	HDD: 1TB

### **Minimum Software Requirements:**

Client Side	Server Side
Operating System: Windows XP onwards or Any Compatible OS	Operating System: Windows XP onwards or Any Compatible OS
Browser: Edge, Chrome, Firefox, and Safari	Web Server: Apache Tomcat Version 9.0
	Database Server: MySQL 5.7
	Framework: Web Application Framework

### SQL Scripts

```
DROP TABLE IF EXISTS login_tbl;
```

```
CREATE TABLE login_tbl (  
    username varchar(20) NOT NULL,  
    password varchar(20) default NULL,  
    type varchar(10) default NULL,  
    PRIMARY KEY (username));
```

```
DROP TABLE IF EXISTS department;
```

```
CREATE TABLE department (  
    d_id int(5) NOT NULL,  
    d_name varchar(10) default NULL,  
    d_location varchar(10) default NULL,  
    PRIMARY KEY (d_id));
```

```
DROP TABLE IF EXISTS employee;
```

```
CREATE TABLE employee (  
    e_fname varchar(12) default NULL,  
    e_lname varchar(12) default NULL,  
    emp_id int(5) NOT NULL,  
    mgr_id int(5) NOT NULL,  
    doj date default NULL,  
    sal double(10,2) default NULL,  
    d_id int(5) default NULL,  
    grade int(5) default NULL,  
    PRIMARY KEY (emp_id),  
    KEY d_id (d_id),  
    CONSTRAINT employee_ibfk_1 FOREIGN KEY (d_id) REFERENCES department (d_id));  
  
alter table employee add column username varchar(20);  
  
alter table employee add constraint un_fk_cnst foreign key (username) references login_tbl(username);
```