

# ONLINE EMPLOYEE PAY ROLL MANAGEMENT SYSTEM

## GROUP 11

S. No	Name	Roll No
1	B. Manish Reddy	CB.EN.U4CSE17409
2	E. Lakshmi Tejitha	CB.EN.U4CSE17417
3	M. Sai Vinoothna	CB.EN.U4CSE17436
4	P. Neeraj Kumar	CB.EN.U4CSE17445
5	B Vindhya	CB.EN.U4CSE17467

### Tools Used:

1. Xampp: For creating local host for database server.
2. MySQL Workbench: Database to store data.
3. Visual Studio Code: IDE for python flask.
4. HTML5 supported web browser.

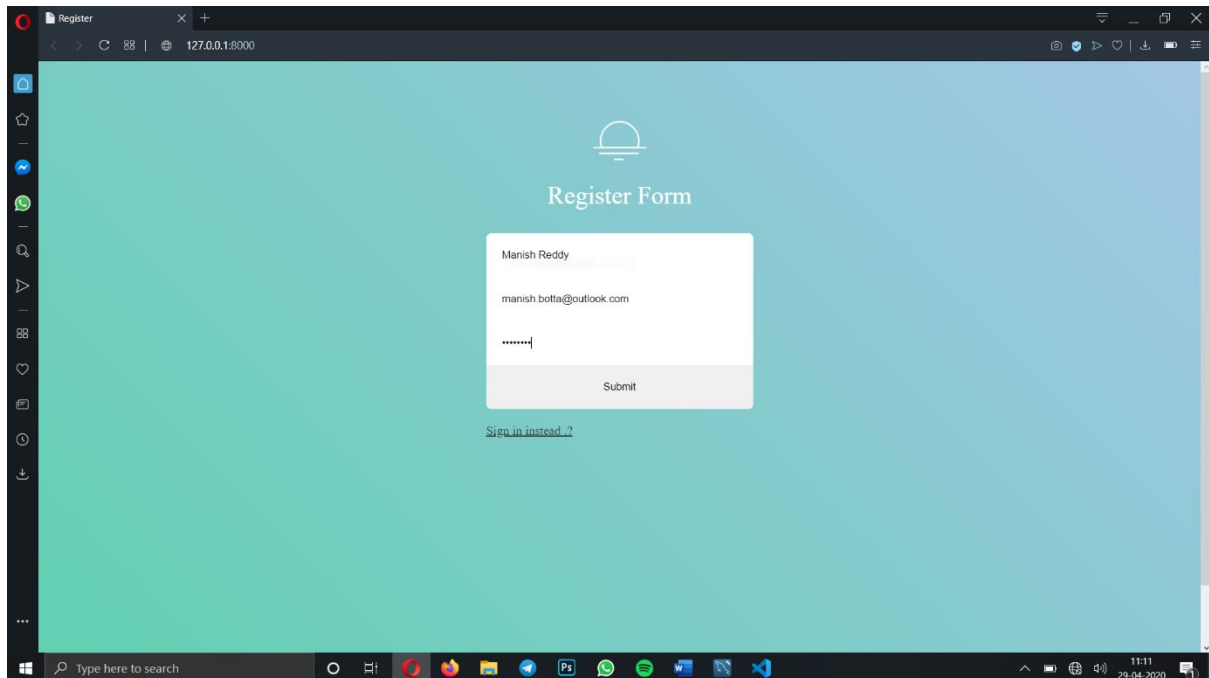
**Abstract:** The main motive of this project is to develop a web-based application for managing all the activities that were done by a HR using python and flask. That includes adding an employee to database. Managing his data by using various database queries and calculating their monthly attendance with the help of csv/excel sheet and sending them their pay bills.

### Modules:

- Login page for HR using his id and password.
- Adding employee.
- Add Attendance using excel sheet or csv file.
- Salary calculation. ( Excel sheet )
- Manage Employee. ( Update and Delete ).

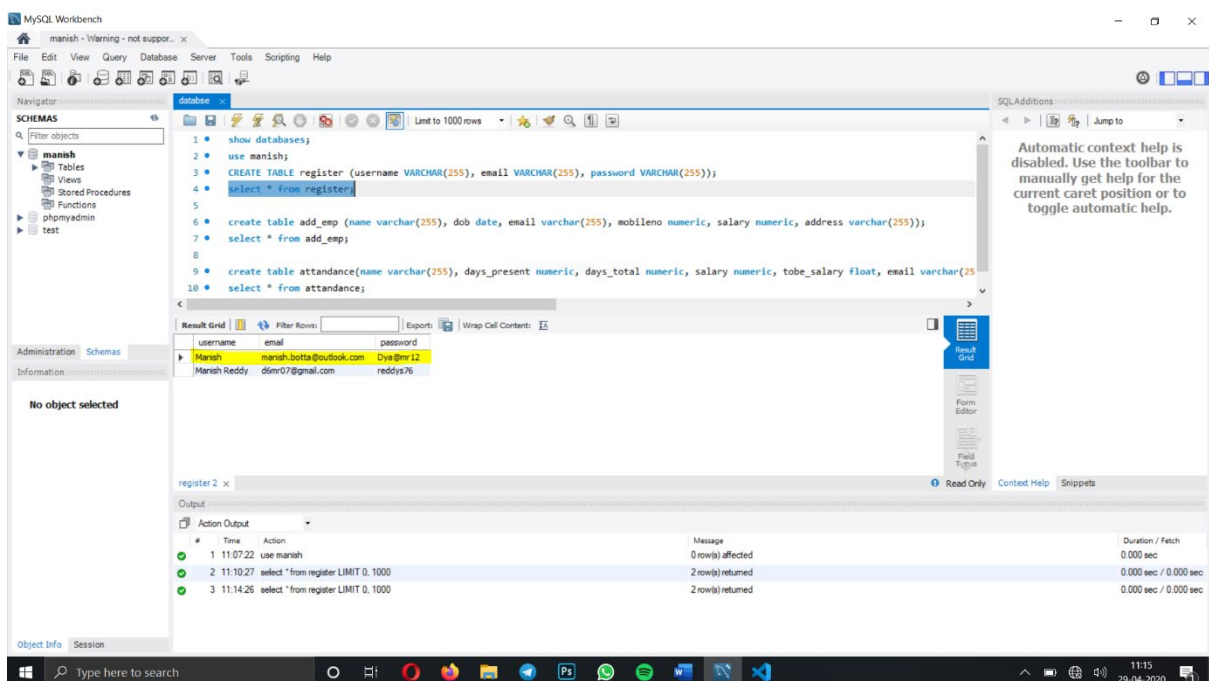
Here it follows the entire project.

**Form 1 :** This is the registration form for the human resource manager where he can create his login details. These details will be stored in MySQL workbench database and further used to login. In the database they will be stored in a database table named register.



The screenshot shows a web browser window titled 'Register' with a URL of 127.0.0.1:8000. The page has a light blue background and a white registration form in the center. The form contains three input fields: 'Manish Reddy' for the username, 'manish.botta@outlook.com' for the email, and a masked password field '\*\*\*\*\*'. Below the fields is a 'Submit' button. A link 'Sign in instead..?' is located below the form.

**Form 2 :** In the form 1 the HR has registered his login details. They are stored in the database as in the below picture in the register table. As highlighted in yellow.

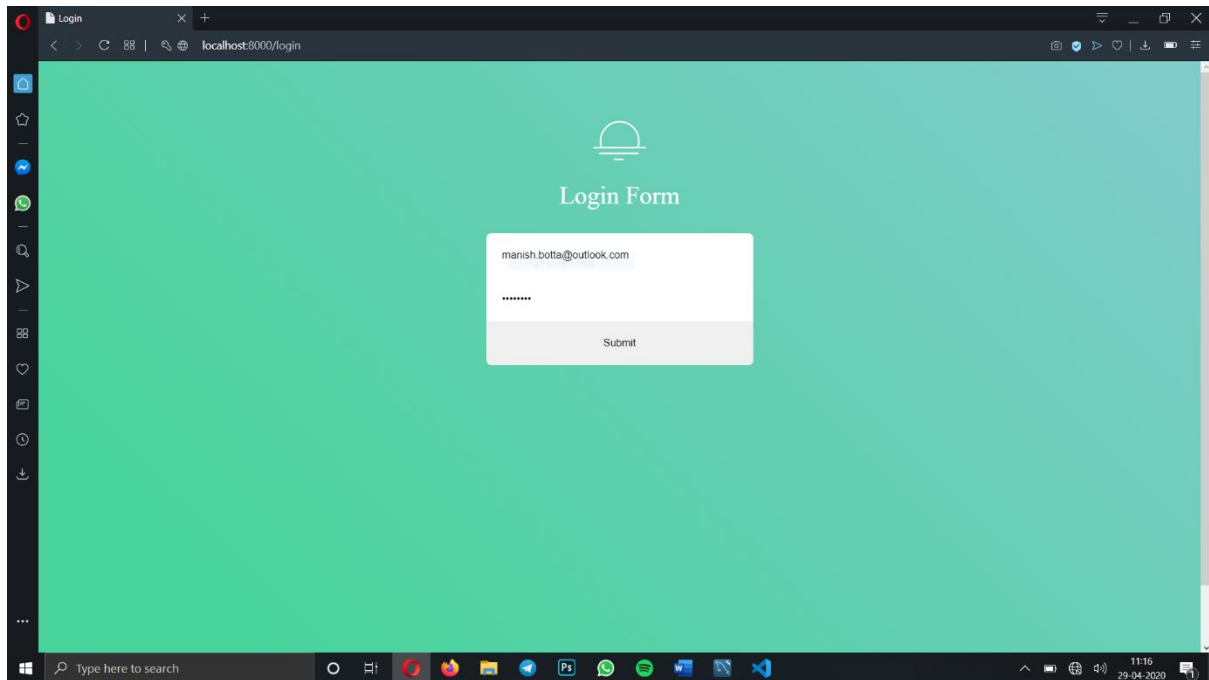


The screenshot shows the MySQL Workbench interface. The 'Schemas' pane on the left shows the 'manish' database selected. The 'Query' editor in the center contains SQL code to create and populate the 'register' table. The 'Result Grid' at the bottom shows the contents of the 'register' table, with two rows highlighted in yellow:

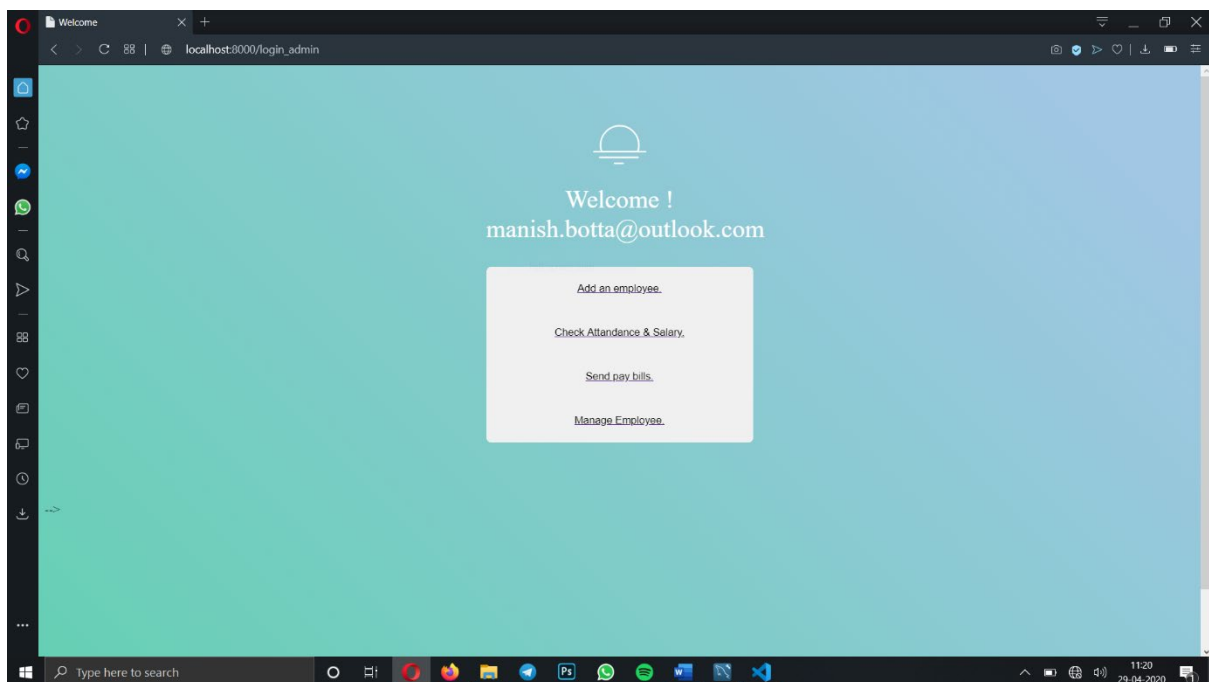
username	email	password
Manish	manish.botta@outlook.com	Dya@12
Manish Reddy	dsm07@gmail.com	reddys76

The 'Output' pane at the bottom shows the execution results of the SQL queries, including the creation of the 'register' table and the insertion of data.

Here we enter the HR login details in order to carry out his operations.



**Form 3 :** After logging in this is the HR welcome page where he can choose his required actions from the below.



**Form 4 :** This is the employee register form. Where a HR can add employees and those details will be passed into the database.

Register Form

Manish.

12-08-1999

manish.reddy@gmail.com

9600776713

2000000

Ettimadai, Coimbatore

Submit

Here as so highlighted in the yellow colour the details entered through the form in the previous html page are stored in add\_emp database table.

MySQL Workbench

manish - Warning - not supported...

File Edit View Query Database Server Tools Scripting Help

Navigation

SCHEMAS

manish

Tables

Views

Stored Procedures

Functions

phpmyadmin

test

add\_emp

```
1 show databases;
2 use manish;
3 CREATE TABLE register (username VARCHAR(255), email VARCHAR(255), password VARCHAR(255));
4 select * from register;
5
6 create table add_emp (name varchar(255), dob date, email varchar(255), mobileno numeric, salary numeric, address varchar(255));
7 select * from add_emp;
8
9 create table attendance(name varchar(255), days_present numeric, days_total numeric, salary numeric, tobe_salary float, email varchar(255));
10 select * from attendance;
```

name	dob	email	mobilen	salary	address
G Keshav Niketh	1999-01-03	gketh@gmail.com	6379142942	1000000	Annaya House, Microsoft, Gachibowli.
Susmitha Kancharala	1999-10-21	sumithakanchara1999@gmail.com	9297309790	1100000	2 Town, Guntur.
B Manish Reddy	1999-08-12	bsmr07@gmail.com	9600776713	1100000	Ettimadai, Coimbatore.
The Marlian	1979-05-20	db.en.us@ce17409@db.students.amrita.edu	8008030005	300000	Namma, Vijayawada.
Manish	1999-08-12	manish.reddy@gmail.com	9600776713	2000000	Ettimadai, Coimbatore.

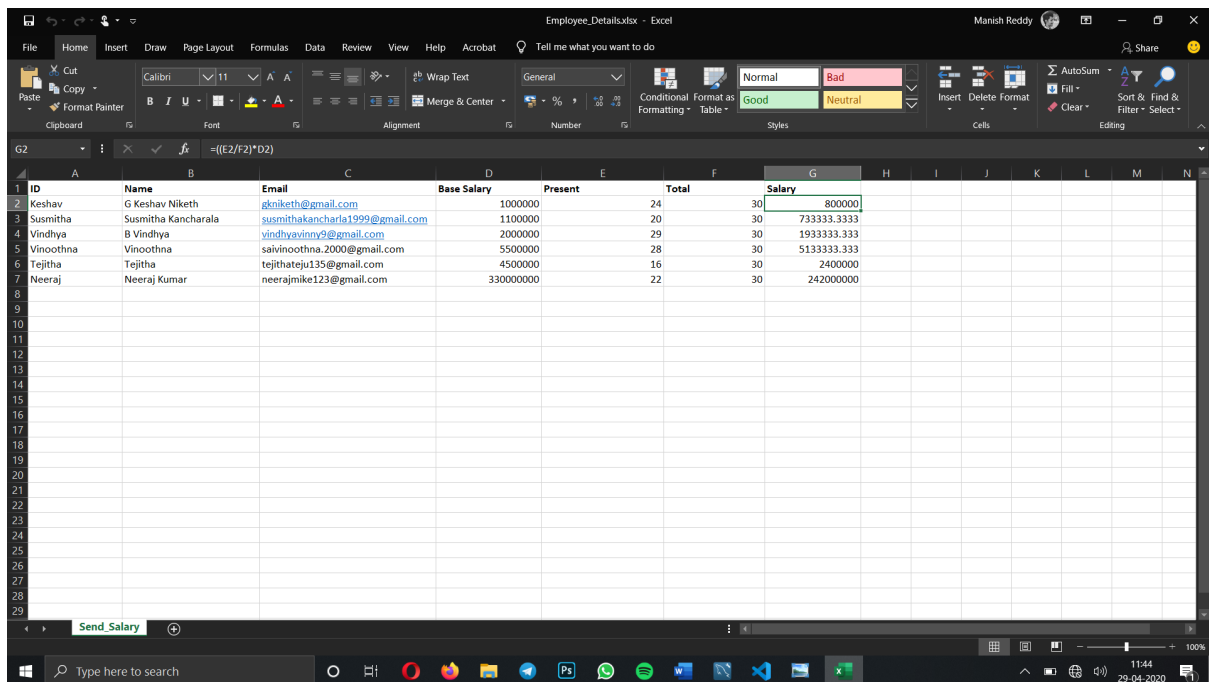
add\_emp 4 x

Output

Action Output

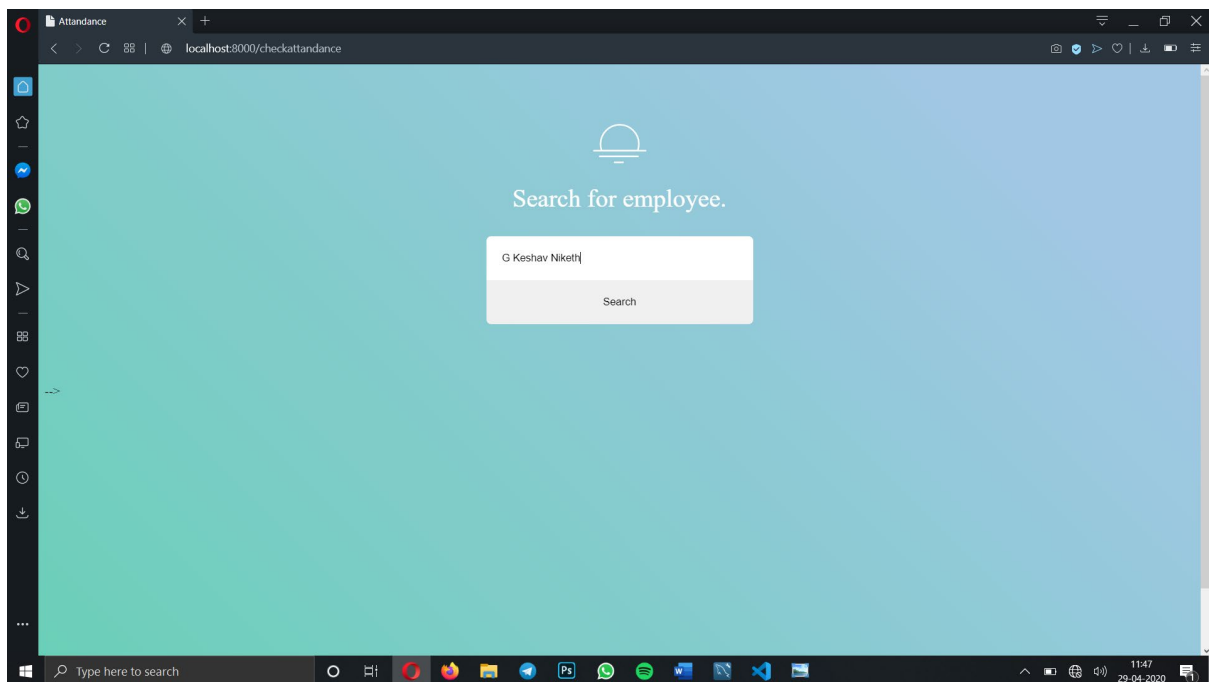
#	Time	Action	Message	Duration / Fetch
1	11:07:22	use manish	0 row(s) affected	0.000 sec
2	11:10:27	select * from register LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec
3	11:14:26	select * from register LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec
4	11:23:03	select * from add_emp LIMIT 0, 1000	4 row(s) returned	0.016 sec / 0.000 sec
5	11:39:06	select * from add_emp LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

**Excel Sheet :** As of now for demonstration the following employees' salary is calculated from the excel sheet with respective of their leaves per 30 days period month. They will be stored in data base.



ID	Name	Email	Base Salary	Present	Total	Salary
2	G Keshav Niketh	gkniketh@gmail.com	1000000	24	30	800000
3	Susmitha Kancharala	susmithakancharala1999@gmail.com	1100000	20	30	733333.333
4	B Vindhya	vindhayavinnv@gmail.com	2000000	29	30	193333.333
5	Vinoothna	salvinoothna.2000@gmail.com	5500000	28	30	513333.333
6	Tejitha	tejithateju135@gmail.com	4500000	16	30	2400000
7	Neeraj Kumar	neerajmike123@gmail.com	33000000	22	30	242000000

**Form 5 :** Now we will go through module 2 where we fetch employee details and leaves he applied in a month with use of database queries and excel sheet.



Attendance

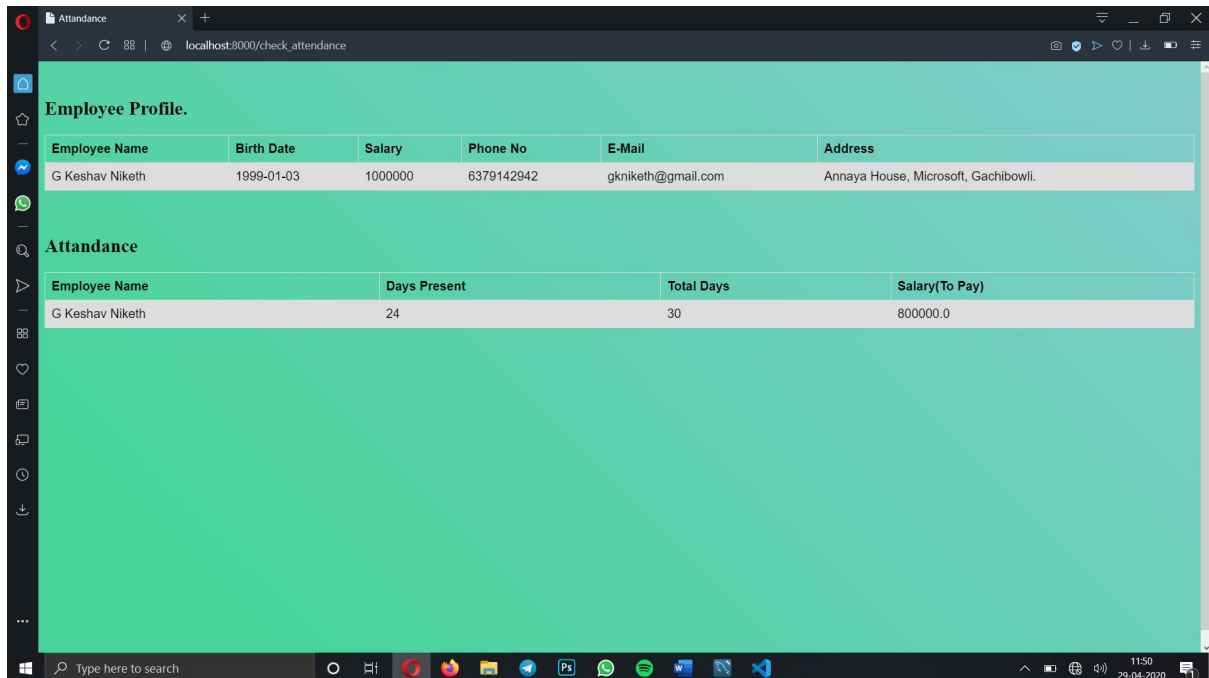
localhost:8000/checkattendance

Search for employee.

G Keshav Niketh

Search

**Form 6 :** From the previous step, the employee with name G Keshav Nikesh details are fetched and presented in the form of html tabular form. Out of which he worked for 24 days out of 30 total working days in a month. So out of his base salary 10,00,000 he has to be paid 80,000.



The screenshot shows a web browser window with the URL `localhost:8000/check_attendance`. The page has a teal background and a dark sidebar on the left. The main content area is divided into two sections: "Employee Profile" and "Attendance".

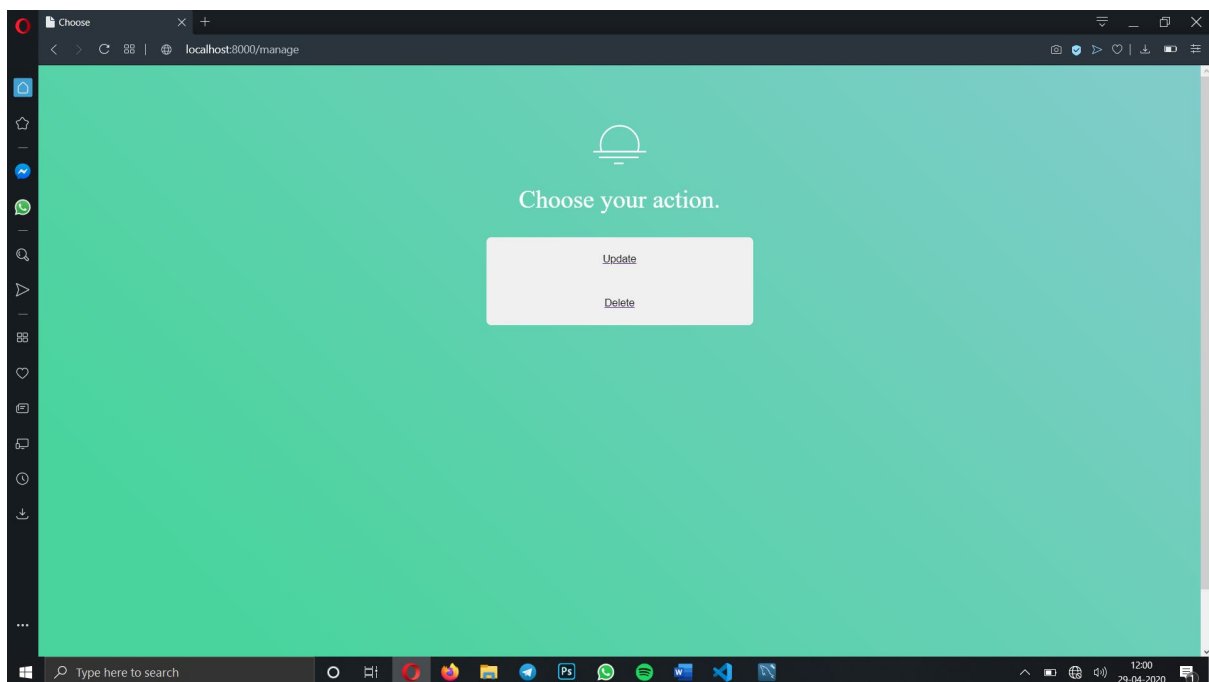
**Employee Profile:**

Employee Name	Birth Date	Salary	Phone No	E-Mail	Address
G Keshav Niketh	1999-01-03	1000000	6379142942	gkniketh@gmail.com	Annaya House, Microsoft, Gachibowli.

**Attendance:**

Employee Name	Days Present	Total Days	Salary(To Pay)
G Keshav Niketh	24	30	800000.0

**Form 7 :** Let's go to next module. Managing the employee details where you have to choose which operation to perform either updating or deleting employee records from the company or the database.



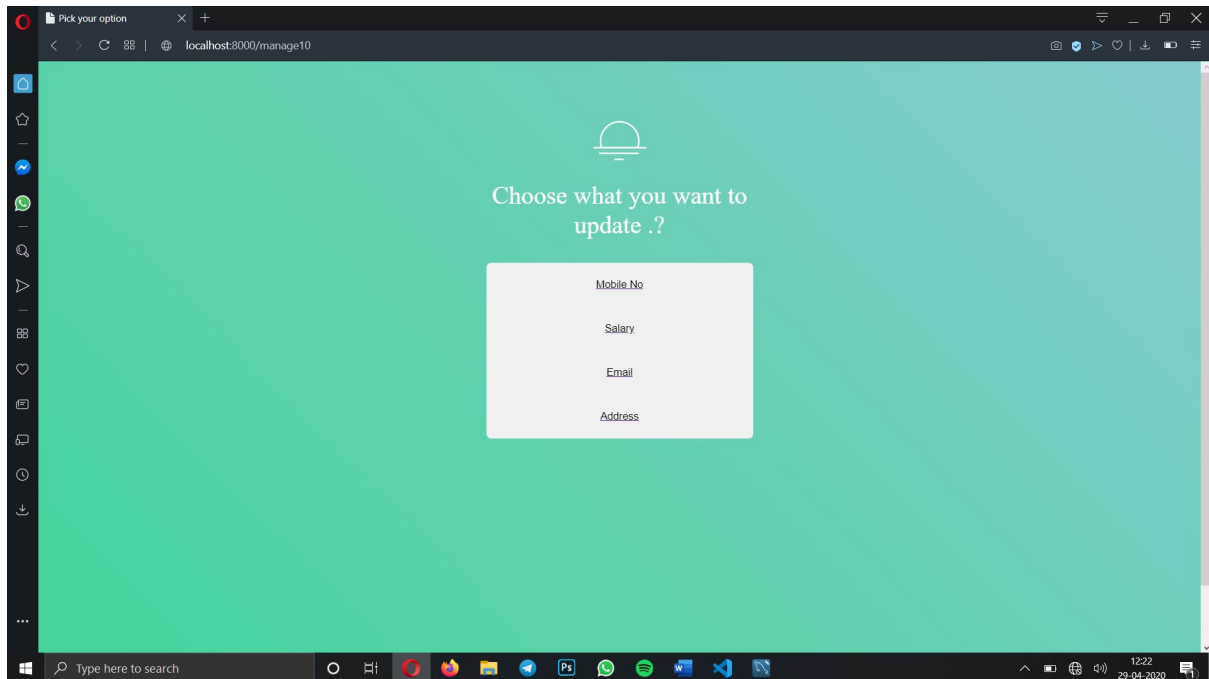
The screenshot shows a web browser window with the URL `localhost:8000/manage`. The page has a teal background and a dark sidebar on the left. The main content area is a modal with a white background and a light gray border. It contains a sun icon, the text "Choose your action.", and two buttons: "Update" and "Delete".

Choose your action.

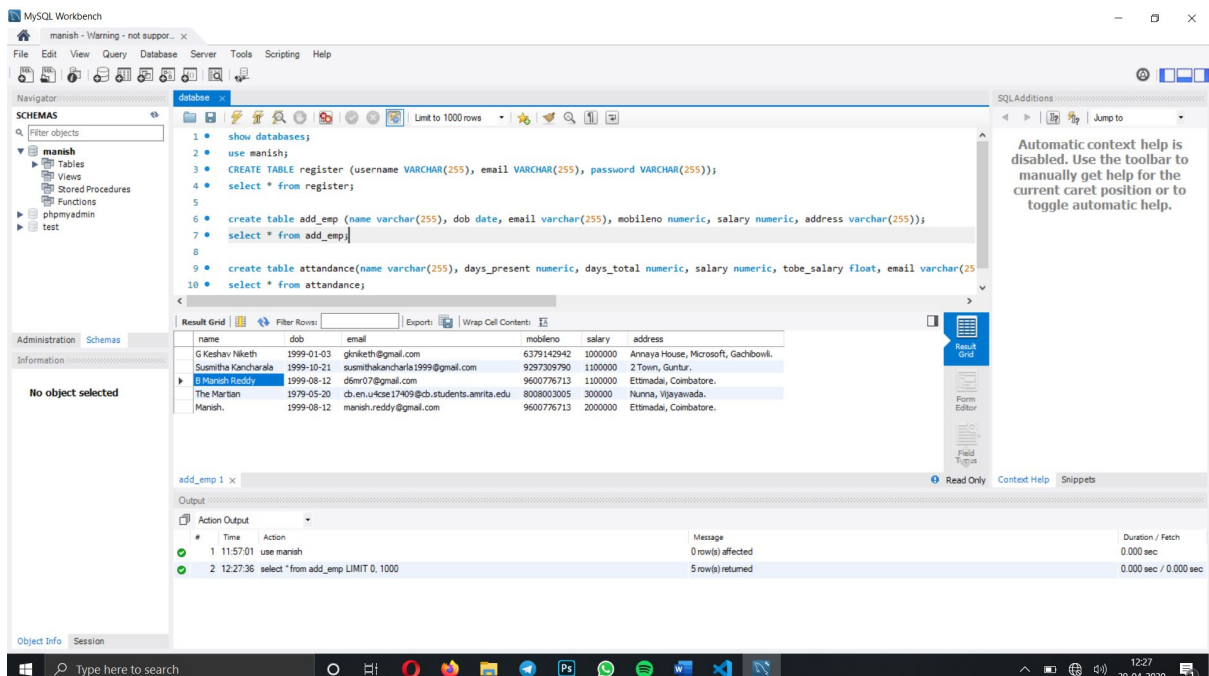
[Update](#)

[Delete](#)

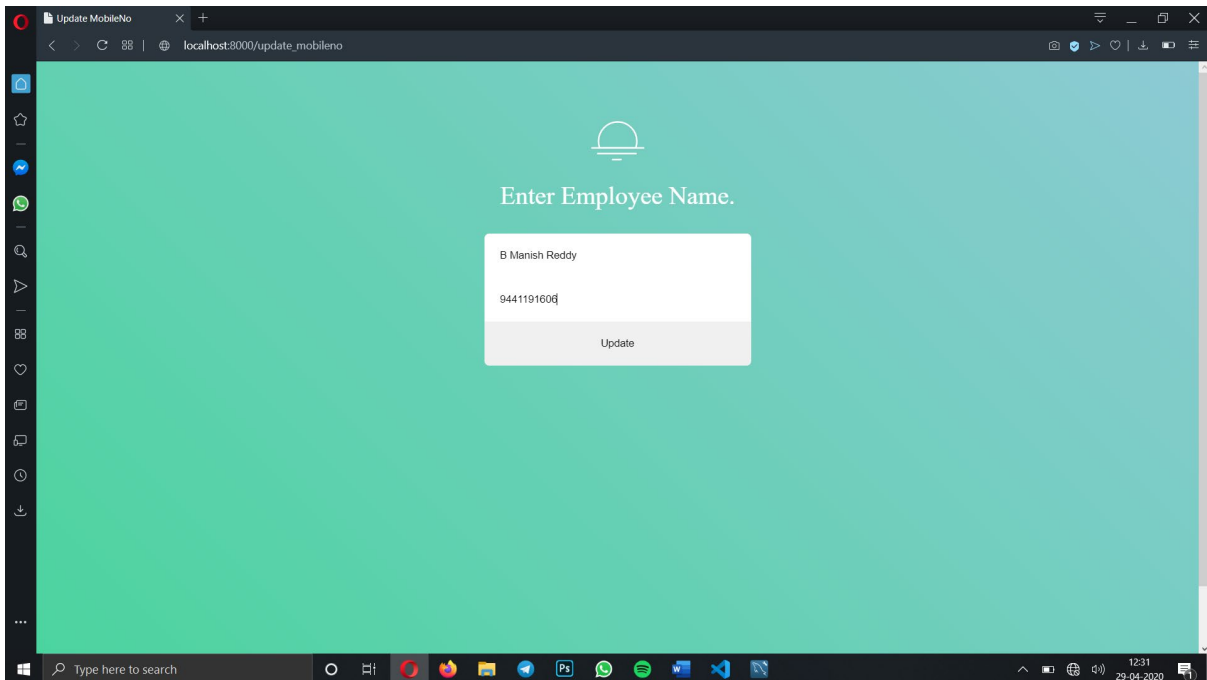
**Form 8 :** In the update menu choose what you want to update like mobile no or salary or email address or address of the employee.



**Database :** Before getting started let's see the database values of the employee that we are going to change. Here I choose employee B Manish Reddy for updating his details.



**Form 9 :** From the above database I want to change mobile number of Employee B Manish Reddy from 9600776713 to 9441191606. Here I am entering employee name and phone number to be changed.



Update MobileNo

localhost:8000/update\_mobilenno

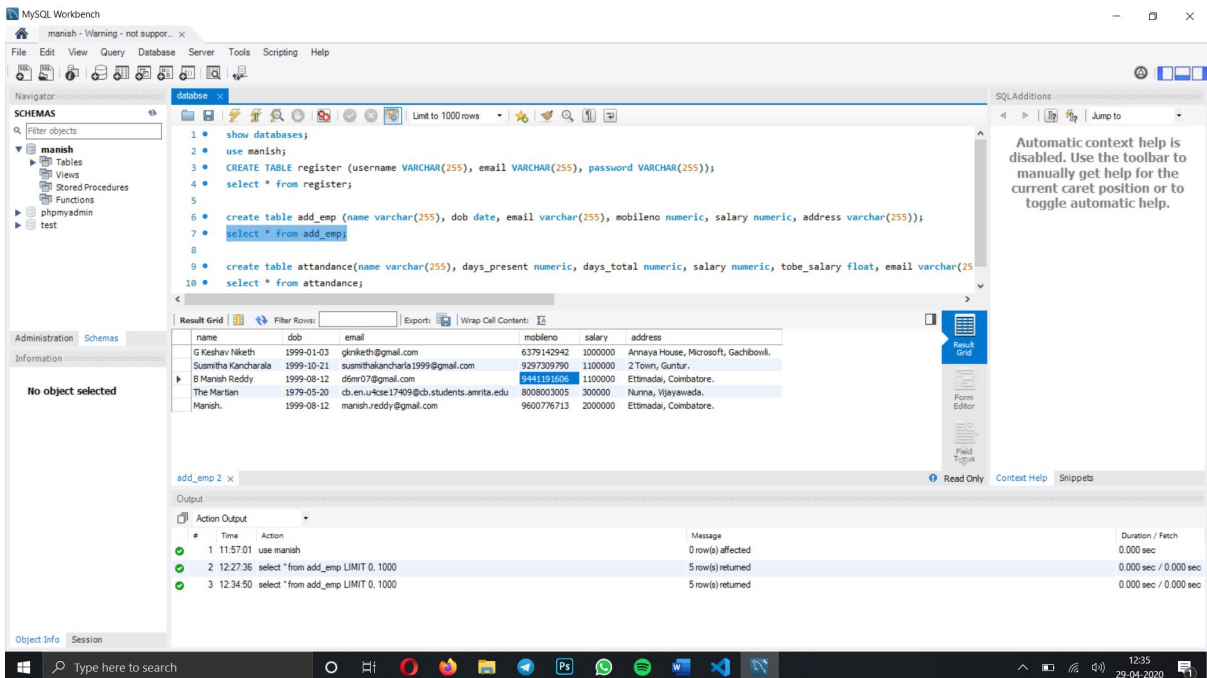
Enter Employee Name.

B Manish Reddy

9441191606

Update

As you see after performing the update phone number the number of employee B Manish Reddy has been changed from 9600776713 to 9441191606.



MySQL Workbench

manish - Warning - not support...

File Edit View Query Database Server Tools Scripting Help

Navigator

database

Limit to 1000 rows

SQL Editor

```
1 show databases;
2 use manish;
3 CREATE TABLE register (username VARCHAR(255), email VARCHAR(255), password VARCHAR(255));
4 select * from register;
5
6 create table add_emp (name varchar(255), dob date, email varchar(255), mobileno numeric, salary numeric, address varchar(255));
7 select * from add_emp;
8
9 create table attendance(name varchar(255), days_present numeric, days_total numeric, salary numeric, tobe_salary float, email varchar(255));
10 select * from attendance;
```

Result Grid

	name	dob	email		mobilenno	salary	address
6	Keetha Nishith	1999-01-03	gkneeth@gmail.com		6379142942	1000000	Amrta House, Microsoft, Gachibowli.
7	Sunitha Kancharala	1999-10-21	sunithakancharala1999@gmail.com		9297309790	1100000	2 Town, Guntur.
8	B Manish Reddy	1999-08-12	dsr07@gmail.com		9441191606	1100000	Ettimada, Coimbatore.
9	The Marlian	1979-05-20	cb.en.ukse17409@cb.students.amrita.edu		8008003005	300000	Nunna, Vijayawada.
10	Manish.	1999-08-12	manish.reddy@gmail.com		9600776713	2000000	Ettimada, Coimbatore.

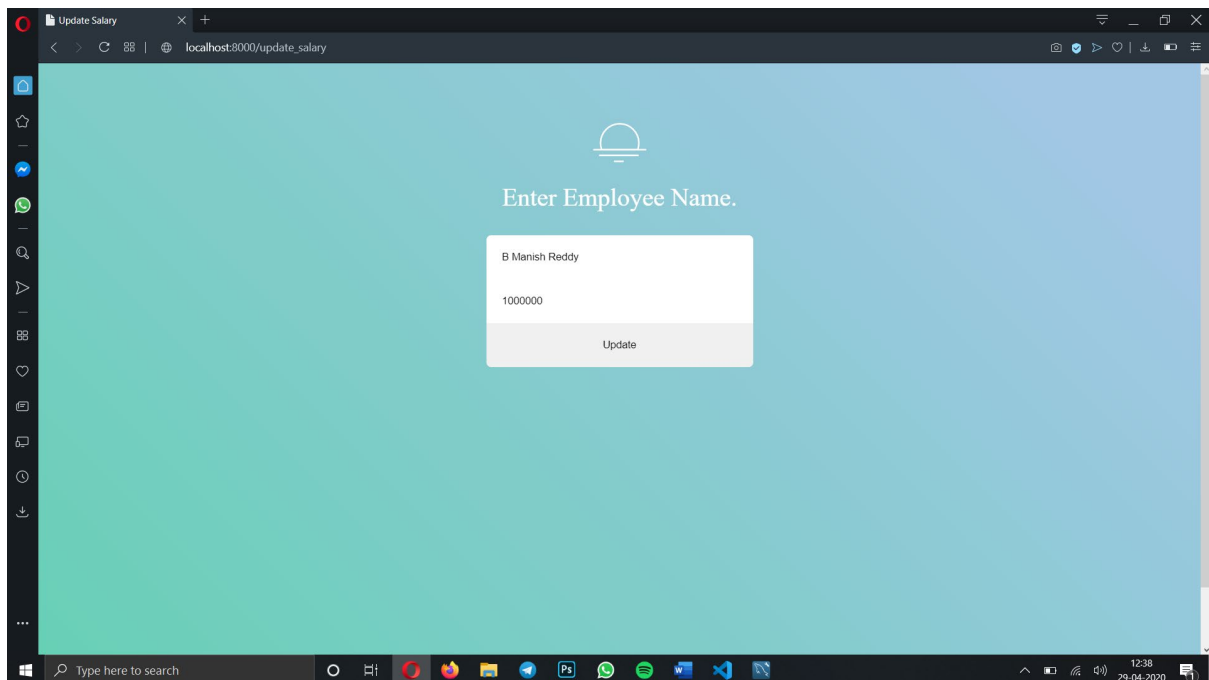
add\_emp 2 x

Output

#	Time	Action	Message	Duration / Fetch
1	11:57:01	use manish		0.000 sec
2	12:27:36	select * from add_emp LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
3	12:34:50	select * from add_emp LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

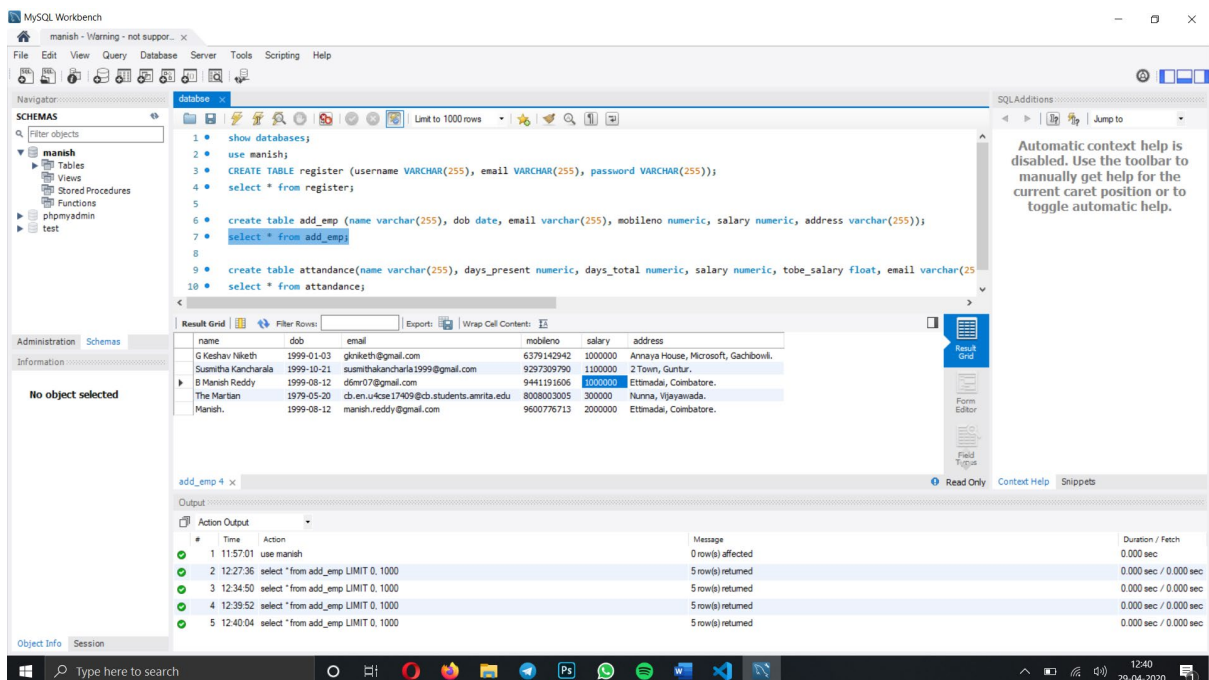


**Form 10 :** Now we will move to update salary of employee B Manish Reddy from 11,00,000 to 10,00,000. Here in this form I choose employee name and salary to be updated.



The screenshot shows a web browser window with the URL `localhost:8000/update_salary`. The page has a light blue background with a white sun icon at the top center. Below the icon, the text "Enter Employee Name." is displayed. A white form box contains the text "B Manish Reddy" and "1000000". Below the form box is a button labeled "Update".

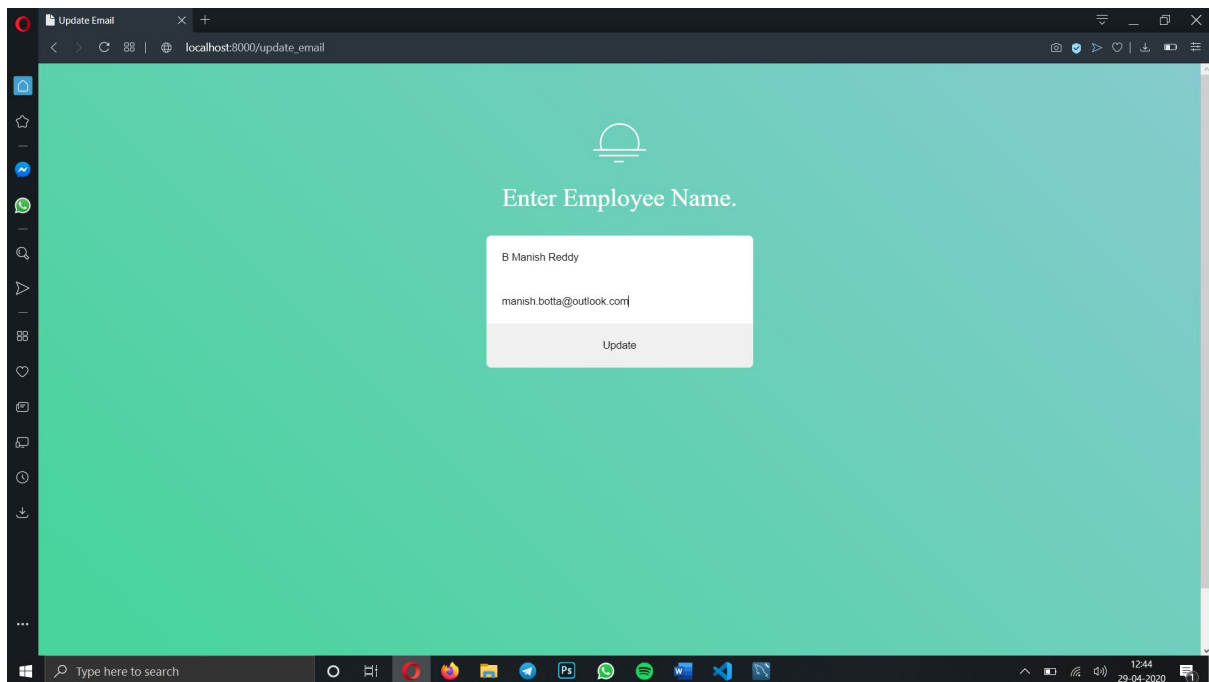
As you see after performing the update salary the salary of employee B Manish Reddy has been changed from 11,00,000 to 10,00,000. As shown in blue colour.



The screenshot shows the MySQL Workbench interface. The 'Schemas' panel on the left shows the 'manish' database selected. The 'Query' editor in the center contains SQL code for creating tables and inserting data. The 'Result Grid' at the bottom displays the data from the 'add\_emp' table. The salary for employee B Manish Reddy is highlighted in blue.

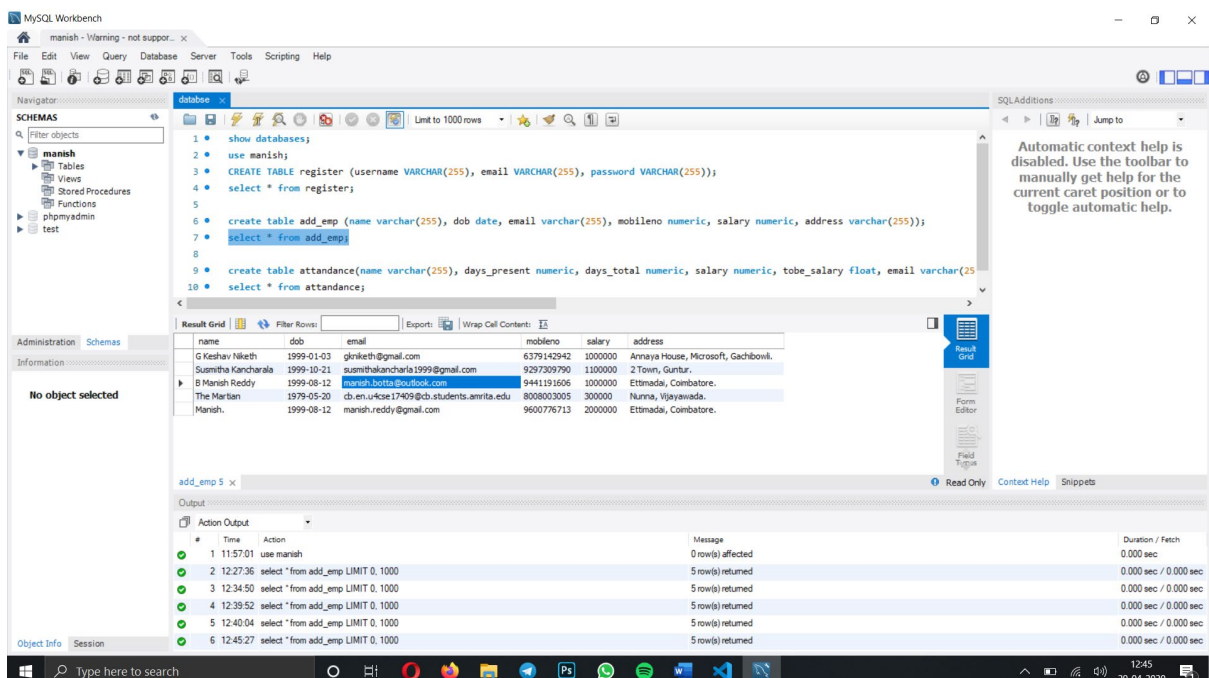
name	dob	email	mobleno	salary	address
G Keshav Niketh	1999-01-03	gkriketh@gmail.com	6379142942	1000000	Annaya House, Microsoft, Gachibowli.
Susmitha Kancharala	1999-10-21	susmithakancharala1999@gmail.com	9297309790	1100000	2 Town, Guntur.
B Manish Reddy	1999-08-12	dbmr07@gmail.com	9441191006	1000000	Ettimadai, Coimbatore.
The Marlian	1979-05-30	db.en.ukae17409@cds.students.amrita.edu	8009003005	300000	Nanna, Vijayanada.
Manish	1999-08-12	manishreddy@gmail.com	9600776713	2000000	Ettimadai, Coimbatore.

**Form 11 :** Now we will move to update email of employee B Manish Reddy from d6mr07@gmail.com to manish.botta@outlook.com. Here in this form I choose employee name and salary to be updated.



The screenshot shows a web browser window with the address bar displaying 'localhost:8000/update\_email'. The page has a teal background and a white form in the center. The form is titled 'Enter Employee Name.' and contains two input fields. The first field is labeled 'B Manish Reddy' and the second field contains the email 'manish.botta@outlook.com'. Below the input fields is an 'Update' button.

As you see after performing the update salary the salary of employee B Manish Reddy has been changed from d6mr07@gmail.com to manish.botta@outlook.com. As shown in blue colour.



The screenshot shows the MySQL Workbench interface. The SQL editor contains the following queries:

```
1. show databases;
2. use manish;
3. CREATE TABLE register (username VARCHAR(255), email VARCHAR(255), password VARCHAR(255));
4. select * from register;
5.
6. create table add_emp (name varchar(255), dob date, email varchar(255), mobleno numeric, salary numeric, address varchar(255));
7. select * from add_emp;
8.
9. create table attendance(name varchar(255), days_present numeric, days_total numeric, salary numeric, tobe_salary float, email varchar(255));
10. select * from attendance;
```

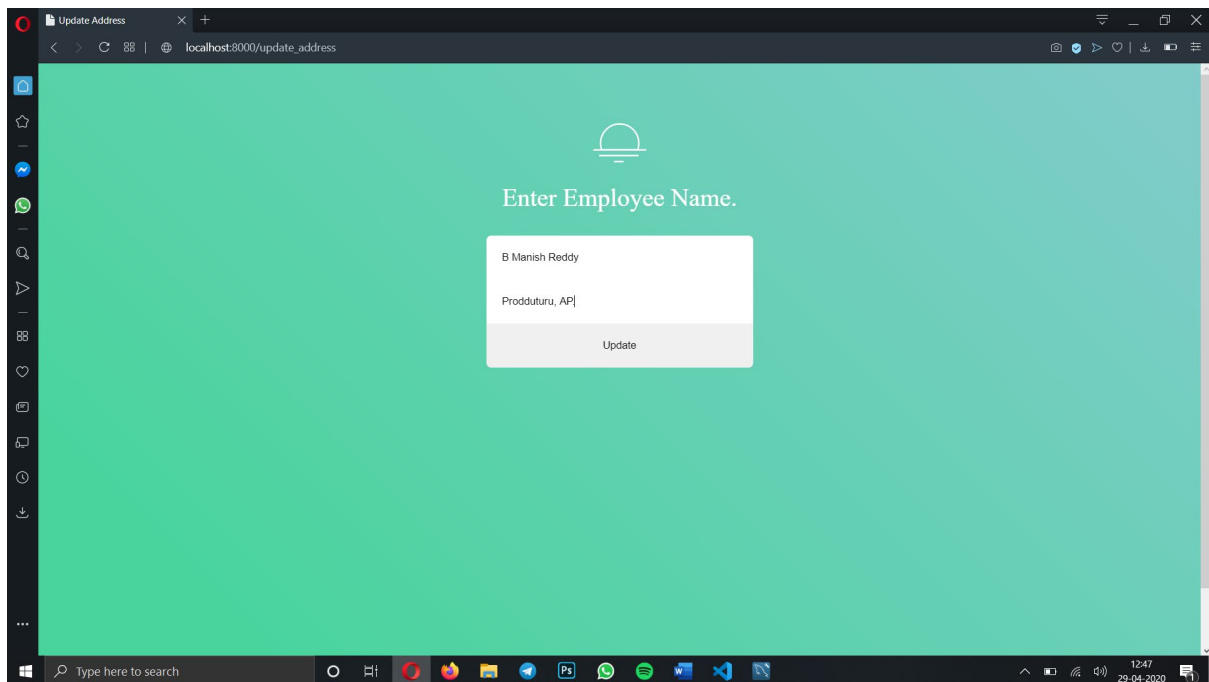
The Results Grid shows the following data:

name	dob	email	mobleno	salary	address
G Keshav Niketh	1999-01-03	gknieeth@gmail.com	6379142942	1000000	Annaya House, Microsoft, Gachibowli.
Susmitha Kancharala	1999-10-21	susmithakancharala1999@gmail.com	9297309790	1100000	2 Town, Guntur.
B Manish Reddy	1999-08-12	manish.botta@outlook.com	9441191606	1000000	Ettimada, Coimbatore.
The Marlian	1979-05-20	cb.en.u4kce17409@cds.students.amrita.edu	8008003005	300000	Nunna, Vijayawada.
Manish	1999-08-12	manishreddy@gmail.com	9600776713	2000000	Ettimada, Coimbatore.

The Action Output shows the following results:

#	Time	Action	Message	Duration / Fetch
1	11:57:01	use manish	0 row(s) affected	0.000 sec
2	12:27:36	select * from add_emp LIMIT 0. 1000	5 row(s) returned	0.000 sec / 0.000 sec
3	12:34:50	select * from add_emp LIMIT 0. 1000	5 row(s) returned	0.000 sec / 0.000 sec
4	12:39:52	select * from add_emp LIMIT 0. 1000	5 row(s) returned	0.000 sec / 0.000 sec
5	12:40:04	select * from add_emp LIMIT 0. 1000	5 row(s) returned	0.000 sec / 0.000 sec
6	12:45:27	select * from add_emp LIMIT 0. 1000	5 row(s) returned	0.000 sec / 0.000 sec

**Form 12 :** Now we will move to update address of employee B Manish Reddy from Ettimadai, Coimbatore to Prodduturu, AP. Here in this form I choose employee name and salary to be updated.



Update Address

localhost:8000/update\_address

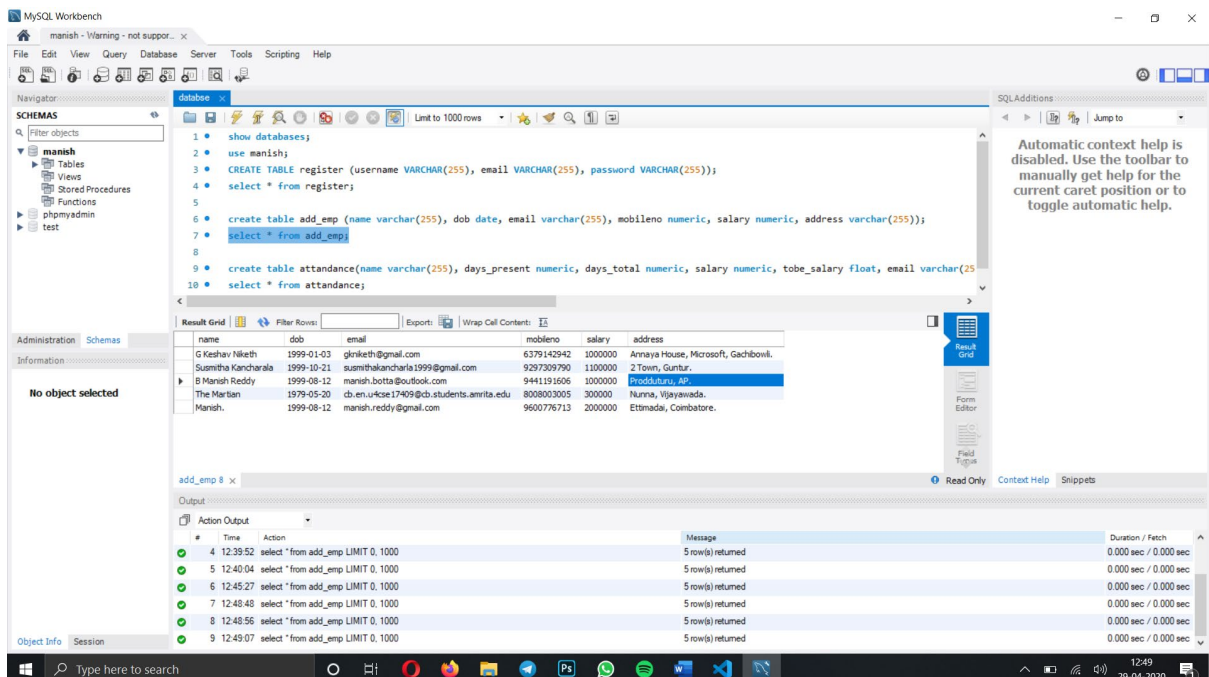
Enter Employee Name.

B Manish Reddy

Prodduturu, AP

Update

As you see after performing the update salary the salary of employee B Manish Reddy has been changed from Ettimadai, Coimbatore to Prodduturu, AP. As shown in blue colour.



MySQL Workbench

manish - Warning - not support...

File Edit View Query Database Server Tools Scripting Help

Navigator

database

Limit to 1000 rows

SQL Additions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Result Grid

#	name	dob	email	mobleno	salary	address
1	G Keashav Nileeth	1999-01-03	gknileeth@gmail.com	6379142942	1000000	Amrjaya House, Microsoft, Gachibowli.
2	Sumantha Kancharala	1999-10-21	susmithakancharla1999@gmail.com	9297309790	1100000	2 Town, Guntur.
3	B Manish Reddy	1979-08-12	manish.botta@outlook.com	9441191506	1000000	Prodduturu, AP.
4	The Marlian	1979-05-20	cb.en.ukse17409@cb.students.amrita.edu	8008003005	300000	Nunna, Vijayawada.
5	Manish.	1999-08-12	manish.reddy@gmail.com	9600776713	2000000	Ettimadai, Coimbatore.

add\_emp 8 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
4	12:39:52	select * from add_emp LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
5	12:40:04	select * from add_emp LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
6	12:45:27	select * from add_emp LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
7	12:48:48	select * from add_emp LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
8	12:48:56	select * from add_emp LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
9	12:49:07	select * from add_emp LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

**Form 13 :** Let's move forward to next module deleting employee records from the database when a HR wants to terminate that employee. From the above database image in page 11 I want to delete employee with Name The Martian.

The screenshot shows a web browser window with the URL `localhost:8000/delete`. The page has a teal background and a white input field with the text "The Martian". Below the input field is a "Delete" button. The browser's taskbar at the bottom shows various application icons and the system clock indicating 12:55 on 29-04-2020.

The employee with name The Martian has been deleted from the database.

The screenshot displays the MySQL Workbench interface. The "Schemas" pane on the left shows the "manish" database. The "Query" editor in the center contains SQL code for creating and querying tables. The "Result Grid" shows a list of employees with columns: name, dob, email, mobilen, salary, and address. The "Output" pane at the bottom shows a log of database actions, including "select \* from add\_emp LIMIT 0, 1000" and "select \* from add\_emp LIMIT 0, 1000".

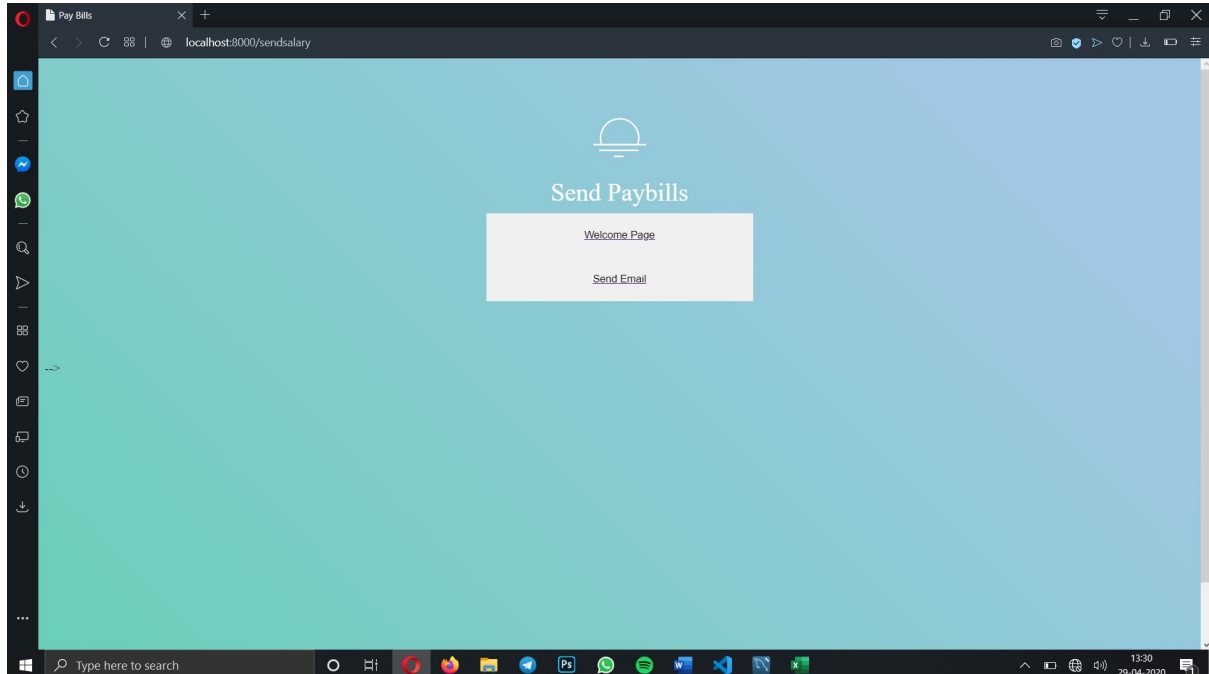
name	dob	email	mobilen	salary	address
G Krishan Niketh	1999-01-03	gkrishn@gmail.com	6379142942	1000000	Anna's House, Microsoft, Gachibowli,
Sumitha Kancharala	1999-10-21	sumithakancharala1999@gmail.com	9297309790	1100000	2 Town, Guntur,
B Manish Reddy	1999-08-12	manish.botta@outlook.com	9441191606	1000000	Prodduturu, AP,
Manish	1999-08-12	manish.reddy@gmail.com	9600776713	2000000	Ettimadai, Coimbatore.

**Form 14 :** Let's go to final module sending emails to employee's using the attendance sheet. We will send these employees salary to their mentioned email id's.

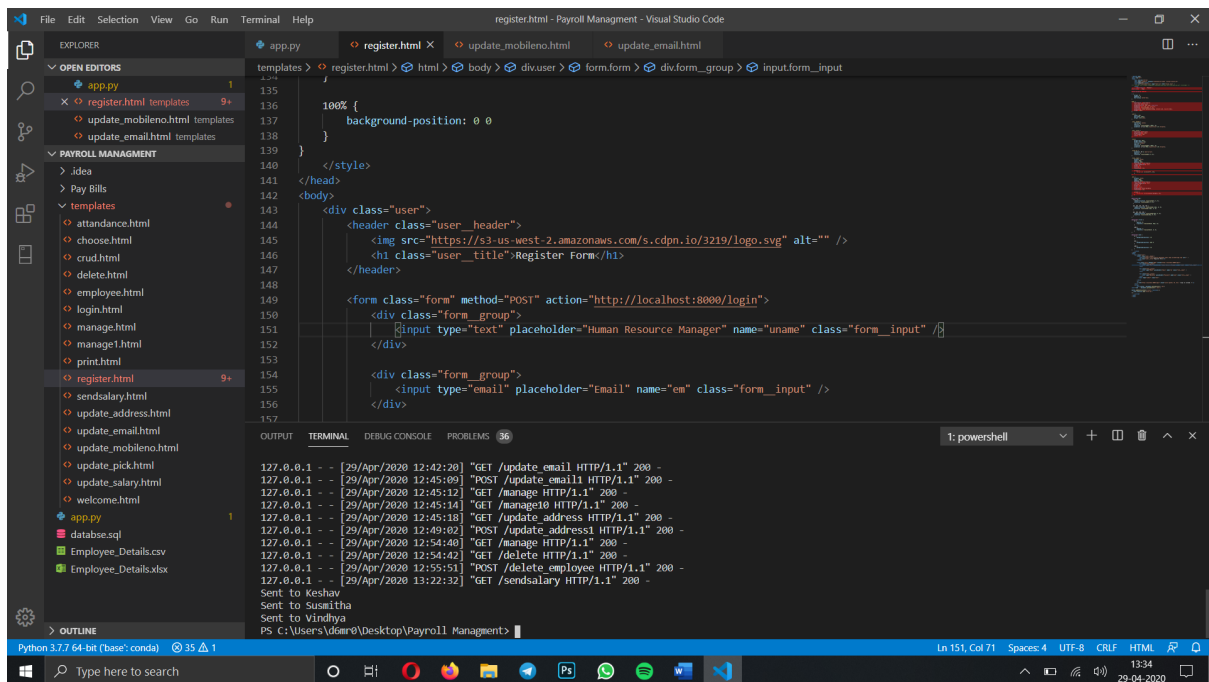
The screenshot shows an Excel spreadsheet with the following data:

ID	Name	Email	Base Salary	Present	Total	Salary
1	Keshav	G Keshav Niketh	gkriketh@gmail.com	1000000	24	30 800000
2	Susmitha	Susmitha Kancharala	susmithakancharala1999@gmail.com	1100000	20	30 733333.3333
3	Vindhya	B Vindhya	vindhyavinnny2@gmail.com	2000000	29	30 1933333.333
4	Vinoothna	Vinoothna	saivinoothna.2000@gmail.com	5500000	28	30 5133333.333
5	Tejitha	Tejitha	tejithateju135@gmail.com	4500000	16	30 2400000
6	Neeraj	Neeraj Kumar	neerajmike123@gmail.com	33000000	22	30 24200000

When you click send salary all the employees will receive their pay bill.



We can observe from the below screenshot terminal of visual studio code, the following employees received their mail. Intentionally I have stopped mail after sending to 3 persons. You can see their in terminal pay bills sent to Keshav sent to Susmitha sent to Vindhya.

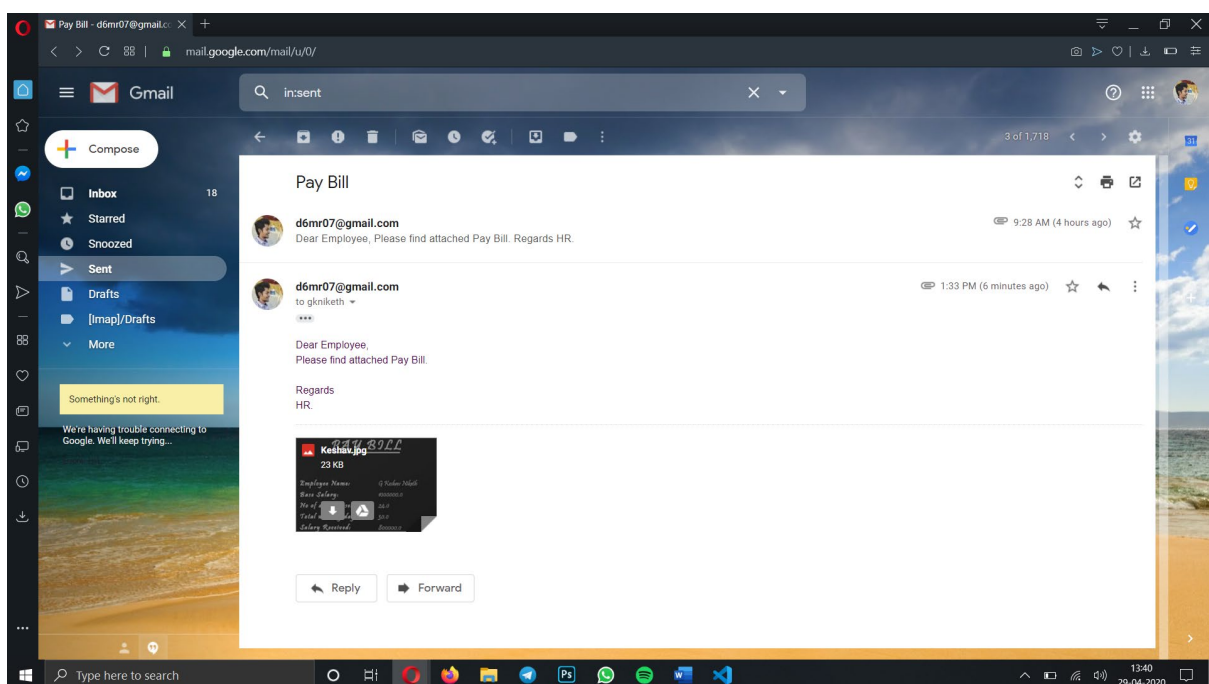


The screenshot shows the Visual Studio Code interface with a web application open in the editor. The file explorer on the left shows a project structure with folders for 'templates' and 'PAYROLL MANAGEMENT'. The main editor displays the 'register.html' file, which contains HTML code for a registration form. The terminal at the bottom shows the output of the application, including HTTP requests and responses, and a list of employees: Keshav, Susmitha, and Vindhya.

```
135 100% {
136     background-position: 0 0
137 }
138
139 </style>
140
141 </head>
142 <body>
143     <div class="user">
144         <header class="user_header">
145             
146             <h1 class="user_title">Register Form</h1>
147         </header>
148
149         <form class="form" method="POST" action="http://localhost:8000/login">
150             <div class="form_group">
151                 <input type="text" placeholder="Human Resource Manager" name="uname" class="form_input" />
152             </div>
153
154             <div class="form_group">
155                 <input type="email" placeholder="Email" name="em" class="form_input" />
156             </div>
157         </form>
158     </div>
159 </body>
160 </html>
```

```
127.0.0.1 - [29/Apr/2020 12:42:20] "GET /update_email HTTP/1.1" 200 -
127.0.0.1 - [29/Apr/2020 12:45:09] "POST /update_email HTTP/1.1" 200 -
127.0.0.1 - [29/Apr/2020 12:45:12] "GET /manage HTTP/1.1" 200 -
127.0.0.1 - [29/Apr/2020 12:45:14] "GET /manage HTTP/1.1" 200 -
127.0.0.1 - [29/Apr/2020 12:45:18] "GET /update_address HTTP/1.1" 200 -
127.0.0.1 - [29/Apr/2020 12:49:02] "POST /update_address HTTP/1.1" 200 -
127.0.0.1 - [29/Apr/2020 12:54:40] "GET /manage HTTP/1.1" 200 -
127.0.0.1 - [29/Apr/2020 12:54:42] "GET /delete HTTP/1.1" 200 -
127.0.0.1 - [29/Apr/2020 12:55:51] "POST /delete_employee HTTP/1.1" 200 -
127.0.0.1 - [29/Apr/2020 13:22:32] "GET /sendsalary HTTP/1.1" 200 -
Sent to Keshav
Sent to Susmitha
Sent to Vindhya
PS C:\Users\Udair\Desktop\Payroll Management>
```

Here is the sent email from my mail account.



The pay bill is the form of an image

# PAY BILL

<i>Employee Name:</i>	<i>G Keshav Niketh</i>
<i>Base Salary:</i>	<i>1000000.0</i>
<i>No of days Present:</i>	<i>24.0</i>
<i>Total working days:</i>	<i>30.0</i>
<i>Salary Received:</i>	<i>800000.0</i>

*Regards*  
*HR*