# Database Management System Leave tracking System Group-5

#### **ABSTRACT**

### **Objective:**

A leave tracking system which tracks the leave records of faculty and students. This project would make the leave record management easier and students & faculties can make surety of their absence.

## **Proposed Solution:**

An efficient database management system that keeps the record of faculty and students leave record. The user can either be a student or a faculty. For a faculty, the leave type must be specified which should abide by the rules while applying for a leave. If this encounters then the record must get updated and the attendance gets marked.

Incase of students, the leave can either be duty leave or personal leave. The duty leave should be applied a week before with proper details and certification which should be sanctioned by the advisor and the higher authorities.

# **Technologies Used:**

• PostgreSQL for storing and manipulating the records.

# Scope:

The project can be extended by implementing the front-end of the leave record management system which can be accessed by their credentials to a web portal, where they can apply, manage and see the status of their leave of absence. Front-end and the database can be linked using back-end (preferably Django).

## **NORMALIZATION**

#### 0NF

Login, Password, id, name, address, phno, type, leaveid, Reason, Itid, Itname, typecount, aid, aname, aaddress, aphno, apprstatus, Exid, Ecount, Estatus,count

| lo<br>gi<br>n | pa<br>ss<br>w<br>or<br>d | iid | nn<br>a<br>m<br>e | ad<br>dr<br>es<br>s | ph<br>no | ty<br>pe | le<br>av<br>ei<br>d | re<br>as<br>on | lti<br>d | Itn<br>a<br>m<br>e | co<br>un<br>t | ty<br>pe<br>co<br>un<br>t | ai<br>d | an<br>m<br>ae | aa<br>dd | ap<br>hn<br>o | ap<br>pr<br>st<br>a | ex<br>id | ec<br>ou<br>nt | es<br>tat<br>us |
|---------------|--------------------------|-----|-------------------|---------------------|----------|----------|---------------------|----------------|----------|--------------------|---------------|---------------------------|---------|---------------|----------|---------------|---------------------|----------|----------------|-----------------|
|               |                          |     |                   |                     |          |          |                     |                |          |                    |               |                           |         |               |          |               |                     |          |                |                 |
|               |                          |     |                   |                     |          |          |                     |                |          |                    |               |                           |         |               |          |               |                     |          |                |                 |
|               |                          |     |                   |                     |          |          |                     |                |          |                    |               |                           |         |               |          |               |                     |          |                |                 |

#### 1NF

Login,leave\_id ——> Password, id, name, address, phno, type, Reason, Itid, Itname, typecount, count, aid, aname, aaddress, aphno, apprstatus, Exid, Ecount

#### Login,leave\_id

| pas<br>sw<br>ord | iid | nna<br>me | add<br>res<br>s | phn<br>o | typ<br>e | rea<br>son | Itid | Itn<br>am<br>e | cou<br>nt | typ<br>eco<br>unt | aid | an<br>ma<br>e | aad<br>dre<br>ss | aph<br>no | app<br>rsta<br>tus | exi<br>d | eco<br>unt |
|------------------|-----|-----------|-----------------|----------|----------|------------|------|----------------|-----------|-------------------|-----|---------------|------------------|-----------|--------------------|----------|------------|
|                  |     |           |                 |          |          |            |      |                |           |                   |     |               |                  |           |                    |          |            |
|                  |     |           |                 |          |          |            |      |                |           |                   |     |               |                  |           |                    |          |            |
|                  |     |           |                 |          |          |            |      |                |           |                   |     |               |                  |           |                    |          |            |

#### 2NF

Login ——> Password, id, name, address, phno,

type
leave\_id——> Reason, Itid, Itname, typecount,count, Exid, Ecount
aid, aname, aaddress, aphno, apprstatus

#### Login

| login | password | id | name | address | phno | type |
|-------|----------|----|------|---------|------|------|
|       |          |    |      |         |      |      |
|       |          |    |      |         |      |      |
|       |          |    |      |         |      |      |

#### Leaveid

| <u>leavei</u><br><u>d</u> | reaso<br>n | Itid | Itnam<br>e | count | typec<br>ount | aid | anma<br>e | aaddr<br>ess | aphno | apprst<br>atus | exid | ecoun<br>t |
|---------------------------|------------|------|------------|-------|---------------|-----|-----------|--------------|-------|----------------|------|------------|
|                           |            |      |            |       |               |     |           |              |       |                |      |            |
|                           |            |      |            |       |               |     |           |              |       |                |      |            |
|                           |            |      |            |       |               |     |           |              |       |                |      |            |

#### 3NF

```
Login ——> Password, id, name, address, phno, type
Leavetype——>ltid, Itname,typecount
leaveid——> Reason, count, apprstatus, fromdate, todate, exid, ai,
exid----->Ecount
aid——> a_name, a_address, aphno,
Login,leave_id—->
login,ltid,leaveid—-->
Leaveid,exid—-->
```

| <u>login</u>    | passwor | d.  | id       | name |       | address |     | phno   |      | type |     |
|-----------------|---------|-----|----------|------|-------|---------|-----|--------|------|------|-----|
|                 |         |     |          |      |       |         |     |        |      |      |     |
|                 |         |     |          |      |       |         |     |        |      |      |     |
|                 |         |     |          |      |       |         |     |        |      |      |     |
|                 |         |     |          |      |       |         |     |        |      |      |     |
| 16.4            |         |     | <u> </u> |      |       |         | 4   |        |      |      |     |
| <u>Itid</u>     |         |     | Itname   |      |       |         | тур | ecount |      |      |     |
|                 |         |     |          |      |       |         |     |        |      |      |     |
|                 |         |     |          |      |       |         |     |        |      |      |     |
|                 |         |     |          |      |       |         |     |        |      |      |     |
|                 |         |     |          |      |       |         |     |        |      |      |     |
| loovoid         | Reaso   | aid | agunt    | anı  | oroto | fromdat | +0. | date   | exid |      | aid |
| l <u>eaveid</u> | n       | aiu | count    | tus  | orsta | e       | lO  | uale   | exid |      | aiu |
|                 |         |     |          |      |       |         |     |        |      |      |     |
|                 |         |     |          |      |       |         |     |        |      |      |     |
|                 |         |     |          |      |       |         |     |        |      |      |     |
|                 |         |     |          |      |       |         |     |        |      |      |     |
|                 |         |     |          |      |       |         |     |        |      |      |     |
| <u>exid</u>     |         |     |          |      | ecoui | nt      |     |        |      |      |     |
|                 |         |     | <br>     |      |       |         |     |        |      |      |     |
|                 |         |     |          |      |       |         |     |        |      |      |     |
|                 |         |     |          |      |       |         |     |        |      |      |     |
|                 |         |     |          |      |       |         |     |        |      |      |     |

| anmae |             | aaddress    |                 | aphno                     |  |  |  |  |
|-------|-------------|-------------|-----------------|---------------------------|--|--|--|--|
|       |             |             |                 |                           |  |  |  |  |
|       |             |             |                 |                           |  |  |  |  |
|       |             |             |                 |                           |  |  |  |  |
|       |             |             |                 |                           |  |  |  |  |
|       |             | leaveid     |                 |                           |  |  |  |  |
|       |             |             |                 |                           |  |  |  |  |
|       |             |             |                 |                           |  |  |  |  |
|       |             |             |                 |                           |  |  |  |  |
|       |             |             |                 |                           |  |  |  |  |
|       |             |             |                 |                           |  |  |  |  |
|       | <u>Itid</u> |             | <u>leaveid</u>  |                           |  |  |  |  |
|       |             |             |                 |                           |  |  |  |  |
|       |             |             |                 |                           |  |  |  |  |
|       |             |             |                 |                           |  |  |  |  |
|       |             |             |                 |                           |  |  |  |  |
|       |             | <u>exid</u> |                 |                           |  |  |  |  |
|       |             |             |                 |                           |  |  |  |  |
|       |             |             |                 |                           |  |  |  |  |
|       |             |             |                 |                           |  |  |  |  |
|       | anmae       |             | leaveid    Itid | leaveid    Itid   leaveid |  |  |  |  |