

# This app is built with MySQL Database

The following are SQL queries that were used to create the database

```
CREATE DATABASE out_of_office_app;
use out_of_office_app;

CREATE TABLE Employees (
  ID INT AUTO_INCREMENT NOT NULL,
  FullName TEXT NOT NULL,
  Subdivision VARCHAR(255) NOT NULL,
  Position VARCHAR(255) NOT NULL,
  Status ENUM('active', 'inactive')
  DEFAULT 'active' NOT NULL,
  People_Partner INT NOT NULL,
  Leave_Balance INT NOT NULL,
  Photo BLOB,
  PRIMARY KEY (ID)
);
```

```
CREATE TABLE LeaveRequest (
  ID INT AUTO_INCREMENT NOT NULL,
  Employee INT NOT NULL,
  AbsenceReason ENUM('Vacation', 'Sick Leave',
  'Personal', 'Other') NOT NULL,
  StartDate DATE NOT NULL,
  EndDate DATE NOT NULL,
  Comment TEXT,
  Status ENUM('Submitted', 'Approved', 'Rejected',
  'Canceled') DEFAULT 'Submitted',
  PRIMARY KEY (ID),
  FOREIGN KEY (Employee) REFERENCES Employees(ID)
);
```

The following are SQL queries that were used to create the database

```
CREATE TABLE LeaveRequest (  
    ID INT AUTO_INCREMENT NOT NULL,  
    Employee INT NOT NULL,  
    AbsenceReason ENUM('Vacation', 'Sick Leave',  
        'Personal', 'Other') NOT NULL,  
    StartDate DATE NOT NULL,  
    EndDate DATE NOT NULL,  
    Comment TEXT,  
    Status ENUM('Submitted', 'Approved', 'Rejected',  
        'Canceled') DEFAULT 'Submitted',  
    PRIMARY KEY (ID),  
    FOREIGN KEY (Employee) REFERENCES Employees(ID)  
);
```

```
CREATE TABLE ApprovalRequest (  
    ID INT AUTO_INCREMENT NOT NULL,  
    Approver INT NOT NULL,  
    LeaveRequest INT NOT NULL,  
    Status ENUM('New', 'Approved', 'Rejected',  
        'Canceled') DEFAULT 'New',  
    Comment TEXT,  
    PRIMARY KEY (ID),  
    FOREIGN KEY (LeaveRequest) REFERENCES LeaveRequest(ID)  
);
```

## Query to display all Employees records

```
SELECT *  
FROM Employees`);
```

## Query to add new employee record

```
`  
INSERT INTO Employees (FullName, Subdivision,  
Position, people_partner, leave_balance, photo)  
VALUES (?, ?, ?, ?, ?, ?)` , [FullName, Subdivision,  
Position, People_Partner, Leave_Balance,  
Photo]);
```

## Query to update the status column of Employee

```
`  
UPDATE Employees SET Status = ?  
WHERE ID = ?` , [Status, ID]);
```

## Query to partially update employee data without adding null values in case of empty string

```
let query = 'UPDATE Employees SET ';  
const params = [];  
if (FullName !== '') {  
    query += 'FullName = ?, ';  
    params.push(FullName);  
}  
if (Subdivision !== '') {  
    query += 'Subdivision = ?, ';  
    params.push(Subdivision);  
}  
if (Position !== '') {  
    query += 'Position = ?, ';  
    params.push(Position);  
}  
query = query.slice(0, -2);  
  
query += ' WHERE ID = ?';  
params.push(ID);  
  
const updateEmployee = await  
db.query(query, params);
```

## Query to display all Leave Requests records

```
`SELECT *  
FROM LeaveRequest`);
```

## Query to create new leave request record

```
`INSERT INTO LeaveRequest (Employee, AbsenceReason, StartDate, EndDate, Comment)  
VALUES (?, ?, ?, ?, ?)` , [Employee, AbsenceReason, StartDate, EndDate, Comment]);
```

## Query to enable employee to cancel his leave request so that it updates both leave request and approval request status

```
await db.query('START TRANSACTION');
```

```
const [cancelLeaveRequest] = await  
db.query(`UPDATE LeaveRequest SET Status = ?  
WHERE ID = ?`, [Status, ID]);
```

```
const [approvalRequest] = await  
db.query('SELECT ID FROM ApprovalRequest  
WHERE LeaveRequest = ?', [ID]);
```

```
if (approvalRequest.length > 0) {  
const approvalId = approvalRequest[0].ID;
```

```
await db.query(`UPDATE ApprovalRequest SET  
Status = 'Canceled'  
WHERE ID = ?`, [approvalId]);}
```

```
await db.query('COMMIT');
```

## Query to display all Approval Requests records

```
`SELECT *  
FROM ApprovalRequest`);
```

```
const updateLeaveBalance = async  
(employeeId, days) => {  
  const [employee] = await  
db.query('SELECT Leave_Balance FROM  
Employees WHERE ID = ?',  
[employeeId]);  
  const currentBalance =  
employee[0].Leave_Balance;  
  const newBalance = currentBalance  
- days;  
  await db.query('UPDATE Employees  
SET Leave_Balance = ? WHERE ID = ?',  
[newBalance, employeeId]);  
}
```

## Query to Update Approval Request status and recalculate leave balance in case status === "Approved"

```
await db.query('START TRANSACTION');  
await db.query(`UPDATE LeaveRequest SET Status =  
?  
WHERE ID = ?`, [Status, LeaveRequestId]);  
await db.query(`UPDATE ApprovalRequest SET Status  
= ?, Comment = ?  
WHERE LeaveRequest = ?`, [Status, Comment,  
LeaveRequestId]);  
if (Status === 'Approved') {  
  const [leaveRequest] = await db.query(  
`SELECT Employee, StartDate, EndDate FROM  
LeaveRequest  
WHERE ID = ?`, [LeaveRequestId]);  
  const { Employee, StartDate, EndDate } =  
leaveRequest[0];  
  const startDateObj = new Date(StartDate);  
  const endDateObj = new Date(EndDate);  
  const duration = Math.ceil((endDateObj -  
startDateObj) / (1000 * 60 * 60 * 24));  
  await updateLeaveBalance(Employee, duration);  
  await db.query('COMMIT');
```

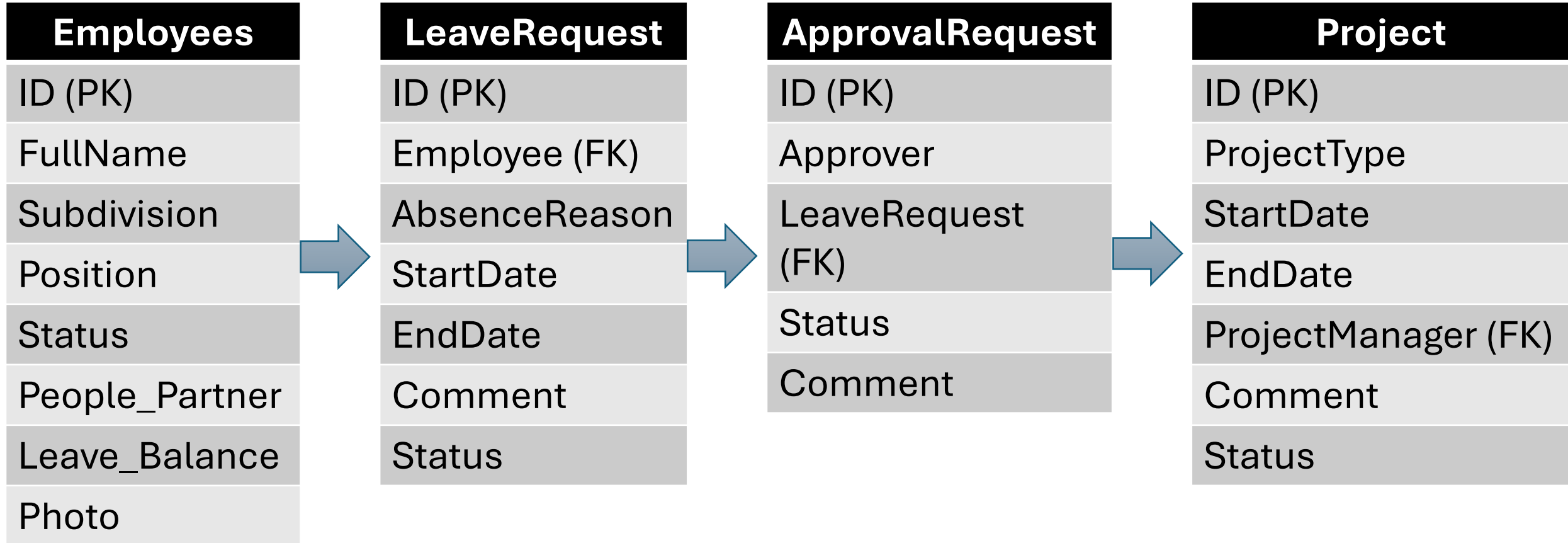
## Query to display Projects records

```
SELECT *  
FROM Project`);
```

## Query to update the project status

```
INSERT INTO Project (ProjectType, StartDate,  
EndDate, ProjectManager, Comment)  
VALUES (?, ?, ?, ?, ?)`, [ProjectType, StartDate,  
EndDate, ProjectManager, Comment]);
```

# Schematic display of table relations



# Tables Descriptions

## 1. Employees

Columns:

- **ID:** Primary Key, unique identifier for each employee.
- **FullName:** Full name of the employee.
- **Subdivision:** Subdivision to which the employee belongs.
- **Position:** Job position of the employee.
- **Status:** Employment status, can be 'active' or 'inactive'.
- **People\_Partner:** ID of the people partner.
- **Leave\_Balance:** Remaining leave balance.
- **Photo:** Photo of the employee.

Relations:

- PK is referenced by the Employee column in the LeaveRequest table.
- PK is referenced by the ProjectManager column in the Project table.



# Tables Descriptions

## 1. LeaveRequest

Columns:

- **ID:** Primary Key, unique identifier for each leave request.
- **Employee:** Foreign Key, references ID in the Employees table.
- **AbsenceReason:** Reason for the leave, can be multiple choice.
- **StartDate:** Start date of the leave.
- **EndDate:** End date of the leave.
- **Comment:** Additional optional comments.
- **Status:** “Submitted” by default until status is updated otherwise.

Relations:

- PK is referenced by the LeaveRequest column in the ApprovalRequest table.

# Tables Descriptions

## 1. ApprovalRequest

Columns:

- **ID:** Primary Key, unique identifier for each approval request.
- **Approver:** ID of the approver.
- **LeaveRequest:** Foreign Key, references ID in the LeaveRequest table.
- **Status:** Default is “New” until updated with “Approved” or “Rejected”
- **Comment:** Additional optional comments.

Relations:

- LeaveRequest is referenced by the ID column in the LeaveRequest table.

# Tables Descriptions

## 1. Project

Columns:

- **ID:** Primary Key, unique identifier for each project.
- **ProjectType :** Type of the project.
- **StartDate :** Start date of the project.
- **EndDate :** End date of the project.
- **ProjectManager :** Foreign Key, references ID in the Employees table.
- **Comment:** Additional optional comments.
- **Status:** Status of the project, can be 'active' or 'inactive'.

Relations:

- ProjectManager is referencing the ID column in the Employees table.

# Landing page of the web app

Each login button shows different functions depending on the role selected

---

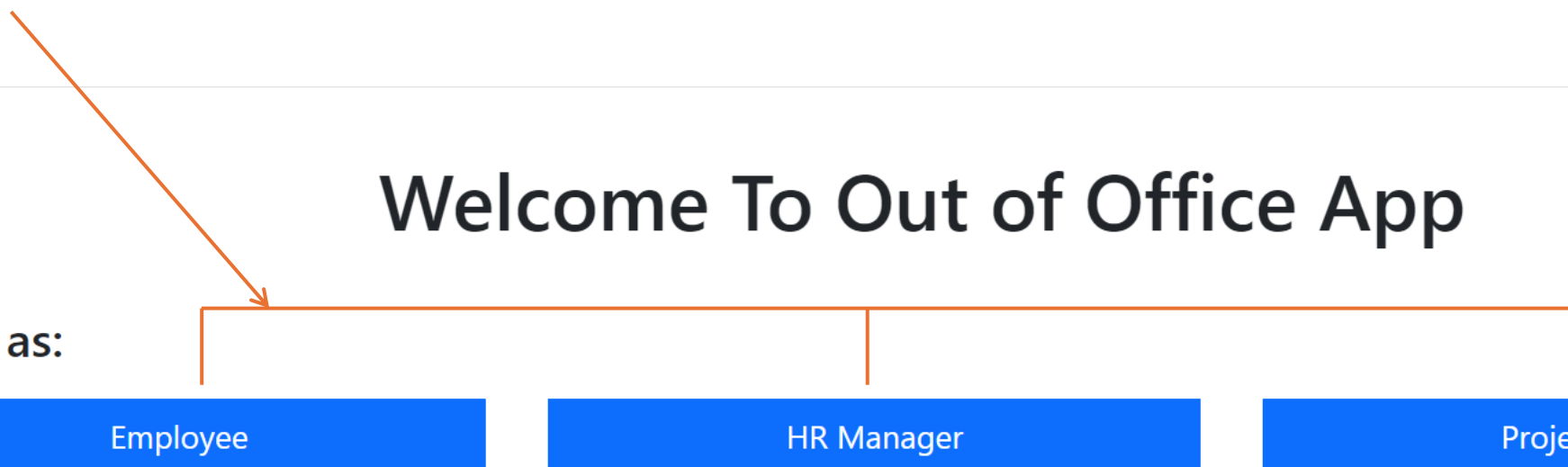
## Welcome To Out of Office App

Login as:

Employee

HR Manager

Project Manager



# On List/Employees

The HR has 3 functions to add / deactivate / edit employees data  
Search by name is also available

Employees List

Projects List

Leave Requests List

Approval Requests List

Logout

Add New Employee

Activate / Deativiate

Update Employee

↓≡ Employee ID	↓≡ Full Name	↓≡ Subdivision	↓≡ Position	↓≡ Status	↓≡ People Partner	↓≡ Leave Balance	Photo
1	Anas Kharboutli	Digital Ops	Associate	active	1	21	

By inserting the correct employee ID number the HR can update the data of the corresponding record

Employees List

Projects List

Leave Requests List

Approval Requests List

Logout

Search By Name

Update Status

Employee ID

1

Status

Inactive

Change Status

Active

Inactive

Employee ID	Full Name	Subdivision	Position	Status	People Partner	Leave Balance	Photo
1	Anas Kharboutli	Digital Ops	Associate	active	1	21	
1	Anas Kharboutli	Digital Ops	Associate	inactive	1	21	

The Employee can create **leave** request and the query will automatically create relevant **approval** request as well

Projects List

Leave Requests List

Approval Requests List

Logout

Create Leave Request

Update Existing Request

Search By Request No.

Request Number	Employee	Absence Reason	Start Date	End Date	Status	Comment
1	1	Vacation	2024-07-17T00:00:00.000Z	2024-07-18T00:00:00.000Z	Submitted	Thanks in Advance

Projects List

Leave Requests List

Approval Requests List

Logout

Search By Request No.

Request Number	Approver ID	Leave Request ID	Status	Comment
1	1	1	New	

HR & Project manager have access to approve/reject the leave request  
By inserting the leave request ID and selecting the decision

Employees List

Projects List

Leave Requests List

Approval Requests List

Logout

Search By Request No.

Request Number	Status	Comment
1		

Update Approval Request

Leave Request ID

1

Decision

Select Decision

Select Decision

Approve

Reject

Close

Confirm



If the leave request is approved the **status** updates immediately on leave request and approval request and duration is deducted from the **leave balance** in employees list

Employees List

Projects List

Leave Requests List

Approval Requests List

Logout

Search By Request No.

Request Number	Employee	Absence Reason	Start Date	End Date	Status	Comment
1	1	Vacation	2024-07-17T00:00:00.000Z	2024-07-18T00:00:00.000Z	Approved	Thanks in Advance

Search By Name

Employee ID	Full Name	Subdivision	Position	Status	People Partner	Leave Balance	Photo
1	Anas Kharboutli	Digital Ops	Associate	active	1	20	

Live link to the app [Click Here](#)

**P.S** in case MySQL database doesn't render immediately please refresh the page after 5 seconds.

Full Code is on [Github](#)

Appreciate your feedback in advance !