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Student Kit

Effort Tracking system

Objective

The aim is to develop an Effort Tracking System using Django and React. It allows efficient management of employee information, attendance, and daily activity tracking. The goal is to streamline HR operations with a responsive interface and real-time data management.

Requirements Specification (RS):-

| Sr No. | Requirement | Essential/Desirable | Description | Remarks |
|--------|--------------------------|---------------------|--|--|
| RS1 | Employee Registration | Essential | Allow admins to add new employees with personal and job-related details. | Includes fields like name, ID, etc. |
| RS2 | Attendance Tracking | Essential | Enable daily attendance marking for each employee. | Date-wise entry maintained |
| RS3 | Leave Management | Essential | Allow employees to apply for leaves and admins to approve/reject them. | Tracks leave count and status. |
| RS4 | Role-Based Access | Essential | Different dashboards and permissions for admin and employee users. | Admin has full access. |
| RS5 | Activity Monitoring | Essential | Log and display employee activities (e.g., work logs, login times). | Can be expanded further |
| RS6 | Employee Dashboard | Desirable | Provide a dashboard for employees to view their attendance and leave status. | User- friendly interface. |
| RS7 | Admin Dashboard | Essential | Admin can view all employees, approve leaves, and manage records. | Overview of system status |
| RS8 | Notifications | Desirable | Notify employees about leave approval or attendance status. | Email or UI- based alerts |

Database Fields Specification:

Customer Account Table

| No. | Field Name | Range of Valid Values for the Field | Remarks |
|-----|--------------------|-------------------------------------|--|
| 1 | Employee_ID | Unique Identifier | Primary field (auto-generated or UUID) |
| 2 | Employee_Name | Up to 50 characters | Full name of the employee |
| 3 | Email | Valid email format | Used for login and notifications |
| 4 | Role | Enum (Admin, Employee, HR) | Determines access level |
| 5 | Date_of_Joining | Date | Date the employee started |
| 6 | Status | Enum (Active, Inactive) | Current employment status |
| 7 | Attendance_Records | Related Table / Foreign Key | Links to attendance entries |
| 8 | Leave_Balance | Integer (0 or positive) | Number of available leave days |
| 9 | Created_At | DateTime | Record creation timestamp |
| 10 | Updated_At | DateTime | Last updated timestamp |

• Customer User:

- o Employee Registration (by Admin)
- o Attendance Marking
- o View Profile & Attendance
- o Leave Application
- Notifications

- Dashboard Access
- o Logout

• Bank Admin:

- o Admin Login
- o Manage Employee Record
- o Attendance Oversight
- o Leave Management
- o Generate Reports
- o Notifications Management
- o Logout

Test Plan (TP):-

| Se No. | Test Case Title | Description | Expected Result | Requirem ent in RS Table | Results |
|-----------|--------------------------|--|---|--------------------------------|---------|
| 1 | Employee Registration | Test the admin process of registering a new employee. | Admin can successfully add a new employee profile. | RS_1 | Passed |
| 2 | Attendance Tracking | Test marking and retrieving daily attendance. | Attendance is marked and displayed correctly. | RS_2 | Passed |
| 3 | Leave Management | Test applying for and approving/rejecting leave requests. | Leave requests are submitted and processed accurately. | RS_3 | Passed |
| 4 | Role-Based Access | Test different access levels for admin and employee users | Admin and employees see only their respective dashboards. | RS_4 | Passed |
| 5 | Activity Monitoring | Test logging and viewing of daily employee activity. | Activities are logged and viewable by admin. | RS_5 | Passed |
| 6 | Employee Dashboard | Test employee dashboard for profile, attendance, and leaves | Employee dashboard displays accurate information. | RS_6 | Passed |
| 7 | Admin Dashboard | Test admin dashboard functionalities and controls. | Admin can view and manage all data effectively. | RS_7 | Passed |
| 8 | Notifications | Test sending and receiving system alerts (e.g., leave status). | Notifications are delivered correctly to employees. | RS_8 | Passed |
| 9 | Report Generation | Test generating reports for attendance and leave data. | Reports are generated accurately and downloadable. | RS_9 | Passed |