EMPLOYEE MANAGEMENT DATABASE ASSIGNMENT

Employee management systems play an immense role in various industries by streamlining HR processes, improving organizational efficiency, and enhancing employee satisfaction. Some of the key factors it applies to are:

- **Efficient HR Processes**: Employee management systems automate many HR tasks such as payroll processing, attendance tracking, leave management, and performance reviews. This automation reduces the administrative burden on HR personnel, allowing them to focus on strategic initiatives rather than routine tasks.

- **Enhanced Productivity**: By providing easy access to employee data, schedules, and performance metrics, these systems facilitate better workforce planning and scheduling. Managers can identify trends, allocate resources efficiently, and optimize workflows, leading to increased productivity across the organization.

- **Better Employee Engagement and Satisfaction**: These systems typically include self-service portals where employees can access their personal information, submit leave requests, view pay stubs, and participate in training programs. By empowering employees with easy access to relevant information and resources, these systems contribute to higher engagement and satisfaction levels.

- **Talent Management and Development**: Employee management systems support talent management initiatives by tracking employee skills, competencies, and career development goals. They enable HR professionals to identify high-potential employees, create personalized development plans, and track progress over time, fostering a culture of continuous learning and growth.

- **Remote Work and Global Collaboration**: In today's globalized and remote work environment, employee management systems with cloud-based functionality enable seamless collaboration and communication across geographically dispersed teams. Employees can access the system from anywhere, facilitating remote onboarding, training, and performance management.

TABLES CREATED

- Employees
- Department
- LeaveRequest
- Performancereviews
- Attendance
- Projects

TABLE DESCRIPTION

1.Employees table (Self –referencing)

- `employee_id` varchar(255) PRIMARY KEY
- `firstname` varchar(255)
- `lastname` varchar(255)
- `dateofbirth` date
- `gender` varchar(255)
- `contactnumber` varchar(255)
- `email` varchar(255)
- `address_line_1` varchar(255)
- `address_line_2` varchar(255)
- `hire_date` varchar(45)
- `termination_date` varchar(45)
- `employee_status` varchar(45)
- `department_id` varchar(255)
- `manager_id` varchar(255) FOREIGN KEY
- `project_id` varchar(45)
- `leave-req_id` varchar(45)
- `project_id` varchar(45)

2. Department

- `department_id` varchar(45) PRIMARY KEY
- `department_name` varchar(45)

- `employee_id` vachar(45) FOREIGN KEY

3. Leave Request

- `attendance_id` varchar(255),
- `leave_req_id` varchar(255),
- `employee_id` varchar(255),
- `leave_type` varchar(255),
- `startdate` varchar(255),
- `enddate` varchar(255),
- `reason` varchar(255)

4. attendance table

- `attendance_id` varchar(255) PRIMARY KEY
- `employee_id` varchar(255) FOREIGN KEY
- `date` date
- `check_in_time` timestamp
- `check_out_time` timestamp

5. PerformanceReviews

- `review_id` varchar (255) PRIMARY KEY
- `employee_id` varchar(255) FOREIGN KEY
- `project_id` varchar(255)
- `date_of_review` date
- `comments` varchar(255)
- `ratings` int

6. Projects

- `project_id` varchar(255) PRIMARY KEY
- `project_name` varchar(255)
- `description` varchar(255)
- `employee_id` varchar(255) FOREIGN KEY

NORMALISATION

1NF- A table is in 1NF if it contains only atomic (indivisible) values, and there are no repeating groups or arrays.

All 6 tables

- All columns contain atomic values.
- No repeating groups or arrays are present.

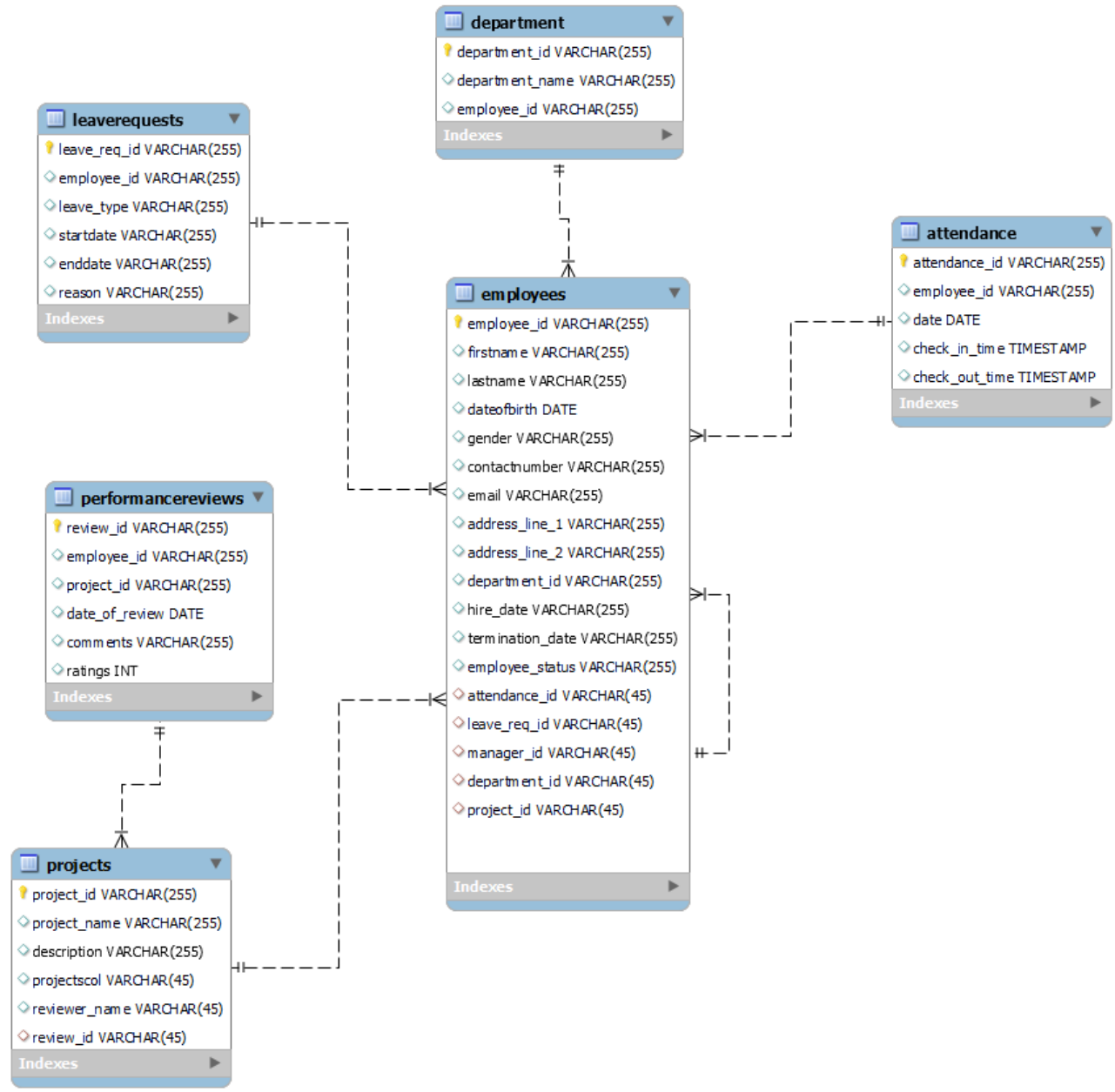
2NF- A table is in 2NF if it is in 1NF and all non-prime attributes are fully functionally dependent on the primary key.

All 6 tables are in 2NF form

- All non-prime attributes of the respective tables are functionally dependent on the primary key entirely.

The 6 tables obey the 3NF as well.

ER DIAGRAM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department_id VARCHAR(255)
department_name VARCHAR(255)
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leave_req_id VARCHAR(255)
employee_id VARCHAR(255)
leave_type VARCHAR(255)
startdate VARCHAR(255)
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attendance_id VARCHAR(255)
employee_id VARCHAR(255)
date DATE
check_in_time TIMESTAMP
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Indexes
employees
employee_id VARCHAR(255)
firstname VARCHAR(255)
lastname VARCHAR(255)
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project_id VARCHAR(255)
date_of_review DATE
comments VARCHAR(255)
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project_id VARCHAR(255)
project_name VARCHAR(255)
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