

CS301 Project Documentation

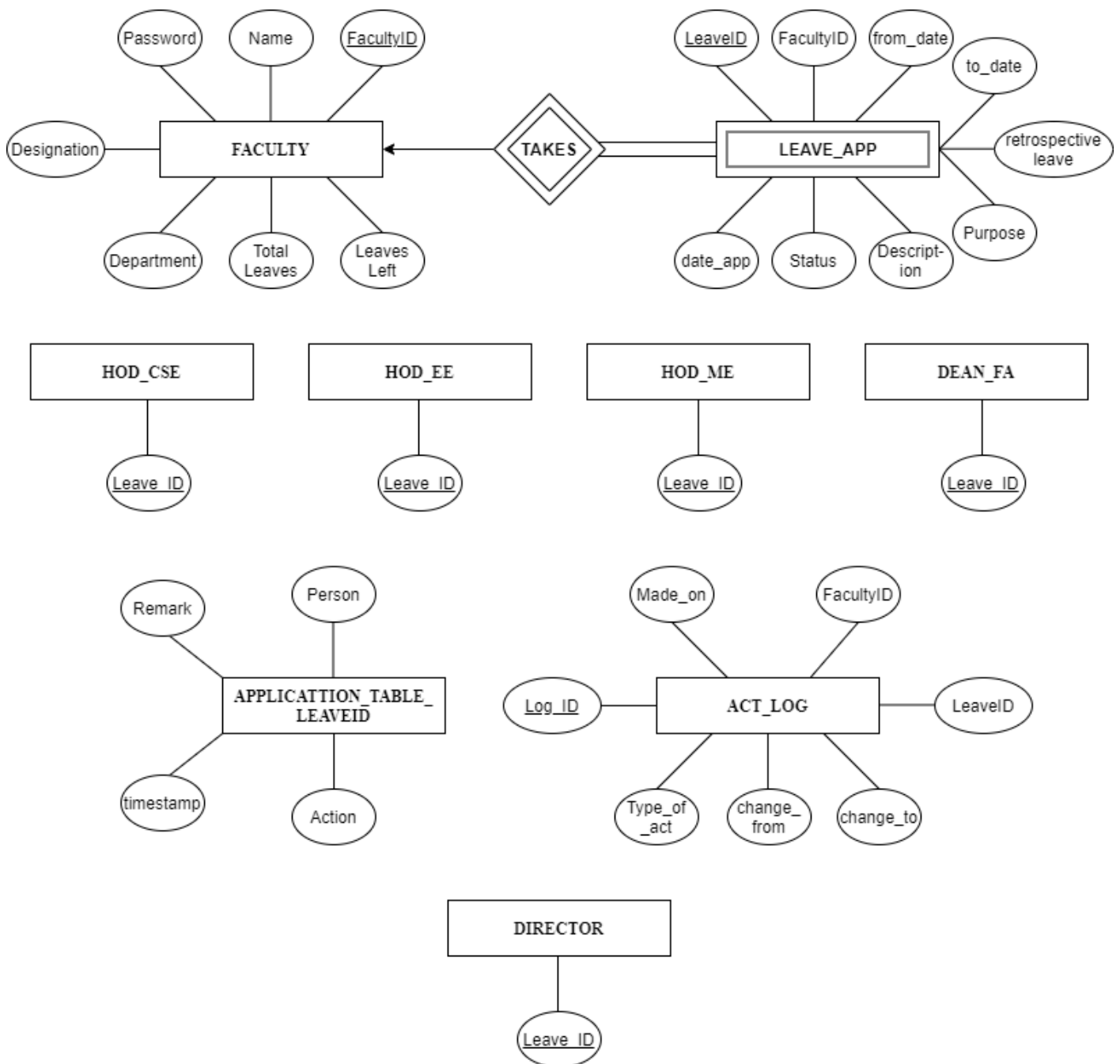
Faculty Leave Management System

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The ER Diagram for our project is as follows:



Tables –

1. **Faculty (facultyID, name, password, designation, department, total_leaves, leaves_left):** contains all the information about all the faculties of the three departments as well as the cross-cutting faculties. The primary key in this table is the faculty ID.
2. **Leave_App (leaveID, facultyID, from_date, to_date, purpose, description, status, date_appl, retrospective_leave):** contains information about all the leaves which are requested by all the faculties and their statuses. Leave ID is the primary key of this table and faculty ID is the foreign key which references the 'Faculty' table.
3. **HOD_CSE (leaveID):** contains all the leave applications which have been requested by the faculty members of the CSE department and have not yet been approved or denied, i.e., are still pending, by the HoD of the CSE department.
4. **HOD_EE (leaveID):** contains all the leave applications which have been requested by the faculty members of the EE department and have not yet been approved or denied, i.e., are still pending, by the HoD of the EE department.
5. **HOD_ME (leaveID):** contains all the leave applications which have been requested by the faculty members of the ME department and have not yet been approved or denied, i.e., are still pending, by the HoD of the ME department.
6. **Dean_FA (leaveID):** contains all the leave applications which have been requested by the faculty members of all the departments and have not yet been approved or denied, i.e., are still pending, by the Dean of Faculty Affairs.
7. **Director (leaveID):** contains all the leave applications which have been requested by the cross-cutting faculties and have not yet been approved or denied, i.e., are still pending, by the Director. Also contains the pending retrospective leaves of the faculties.
8. **Act_log (logID, type_of_act, change_from, change_to, leaveID, facultyID, made_on):** keeps a track of all the changes made in the institute, including the approval/denial of leaves and changes in cross-cutting faculties.
9. **Application_Table_LeaveID (person, remark, action, timestamp):** a dynamically created table which is unique to each leave ID and which contains the updates on actions taken such as comments, acceptance, rejection etc.

Stored Procedures –

1. **Edit_leave_application():** Whenever the status of a leave application is to be changed, this stored procedure updates the status of the application in the concerned tables and also removes the now approved/denied leave applications from the three HoD tables.

2. **Change_designation():** This procedure is called whenever the Director wishes to change the designations of cross-cutting faculties.
3. **New_leave_application():** This procedure is called when the faculty wishes to apply for a new leave.

Triggers –

1. **Deduct_accepted_leave:** This trigger keeps a track of the number of leaves taken by a faculty and deducts the number of leaves left for a particular faculty as and when their applications are accepted.