G19-Release1 Data Model Section

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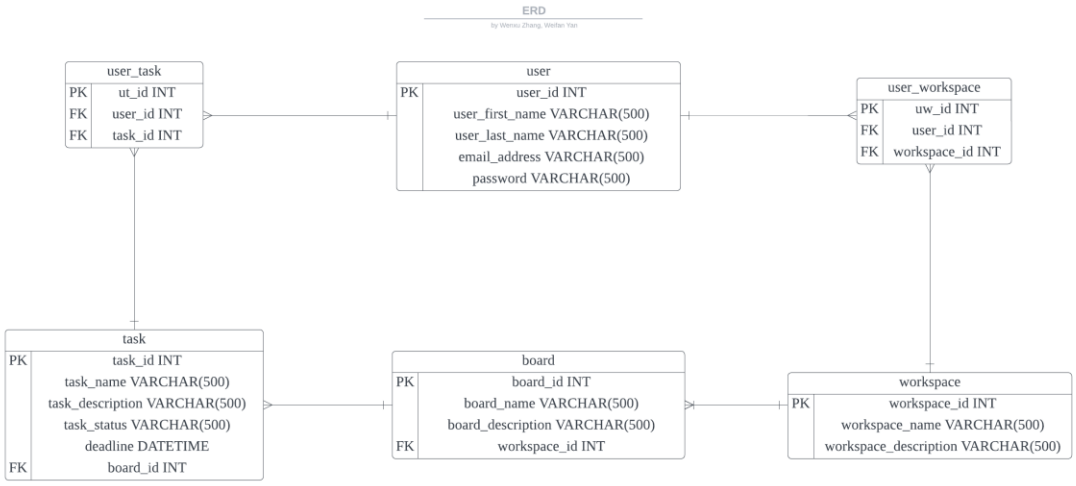
ERD Screenshot



Introduction

First start from the user entity. For each user, there is an user_id to uniquely identify him/her, and the database also normally records the first name and last name of a person, so there are attributes user_first_name and user_last_name. Also, each user needs an email address and password to log in, so there are attributes email_address and password.

Then for the workspace entity, it's a work platform for specific work, and it holds several bords to represent different kinds of content of that work. For each workspace, there is a workspace_id to uniquely identify it, a workspace_name attribute to briefly shows the users what this workspace represents, and a workspace_description attribute could show the details of this workspace to users.

For the relation between user and workspace, since each user could have several works in a meanwhile, for example, if for each course there is a workspace, the students

could take several courses in one term; and also a workspace could hold for several users like for each course there are many students take, so the relation between users and workspace is many to many, and the relationship is bad and hence we need to add a new table user_workspace to connect with user and workspace respectively. And after adding this table, the relation between user and user_workspace is one to many, and the relation between workspace and user_workspace is also one to many, which is good. For this user_workspace identity, there is a uw_id to uniquely identify it, and there are also user_id and workspace_id as foreign keys which could reference from the user table and workspace table respectively.

Then for the board identity, it represents one aspect of the workspace. For each board, there is a board _id to uniquely identify it, a board_name attribute to briefly shows the users what this board represents, and a board_description attribute could show the details of this board to users. Since one workspace could have multiple boards, the relationship between workspace and board is one to many, so there is a workspace_id in the board table as the foreign key which could reference from the workspace.

Then for the task identity, it is a part of the board. For each task, there is a task _id to uniquely identify it, a task_name attribute to briefly show the users what this task is, a task_description attribute could show the details of this task to users, a task_status to show if this task is done, in progress or to-do, and a deadline attribute to show the due date to users. Since one board could contain multiple tasks, the relationship between the board and task is one to many, so there is a board_id in the task table as the foreign

key which could reference from the board.

Finally, for the relation between user and task, since each user could be assigned several tasks in a meanwhile, and also a task could be assigned to several users, the relation between users and task is many to many, and the relationship is bad and hence we need to add a new table user_task to connect with user and task respectively. And after adding this table, the relation between user and user_task is one to many, and the relation between task and user_ task is also one to many, which is good. For this user_ task identity, there is a ut_id to uniquely identify it, and there are also user_id and task _id as foreign keys which could reference from the user table and task table respectively.