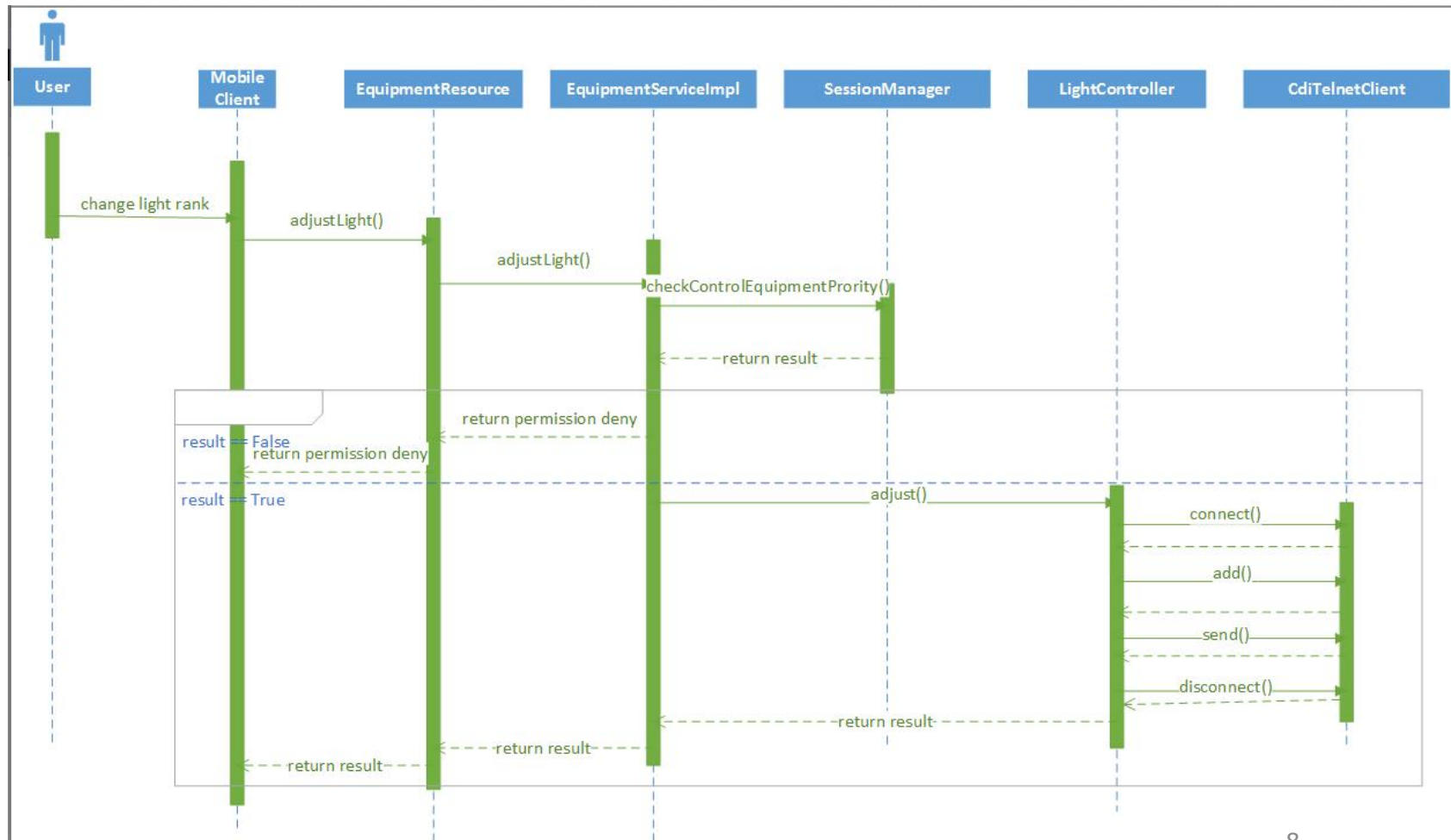


Background

Media lab in our campus needs a reservation system on mobile device for room, equipment and smart furniture booking. My job in this project is subsystem interaction, hardware control and web service design.

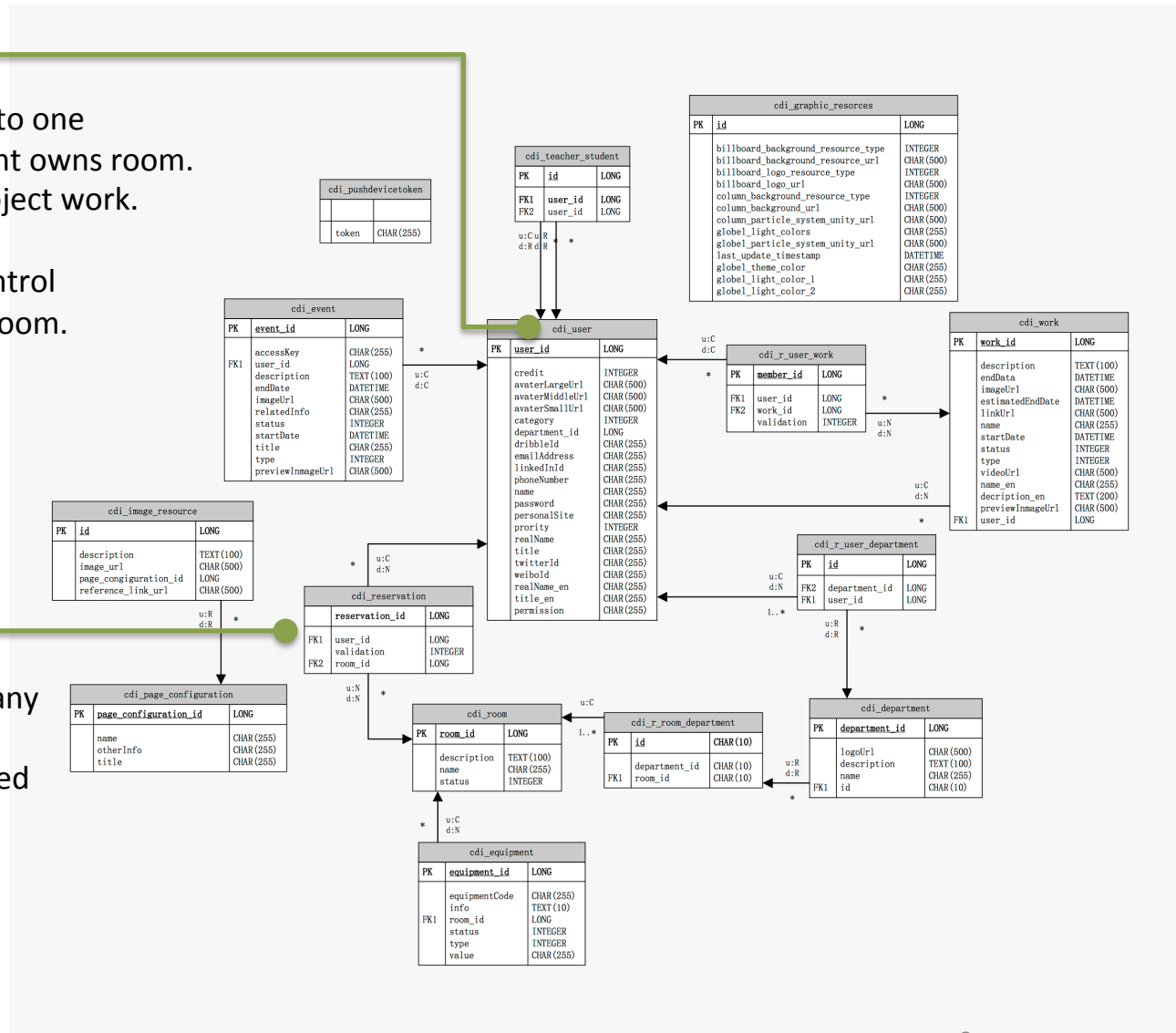


User Entity

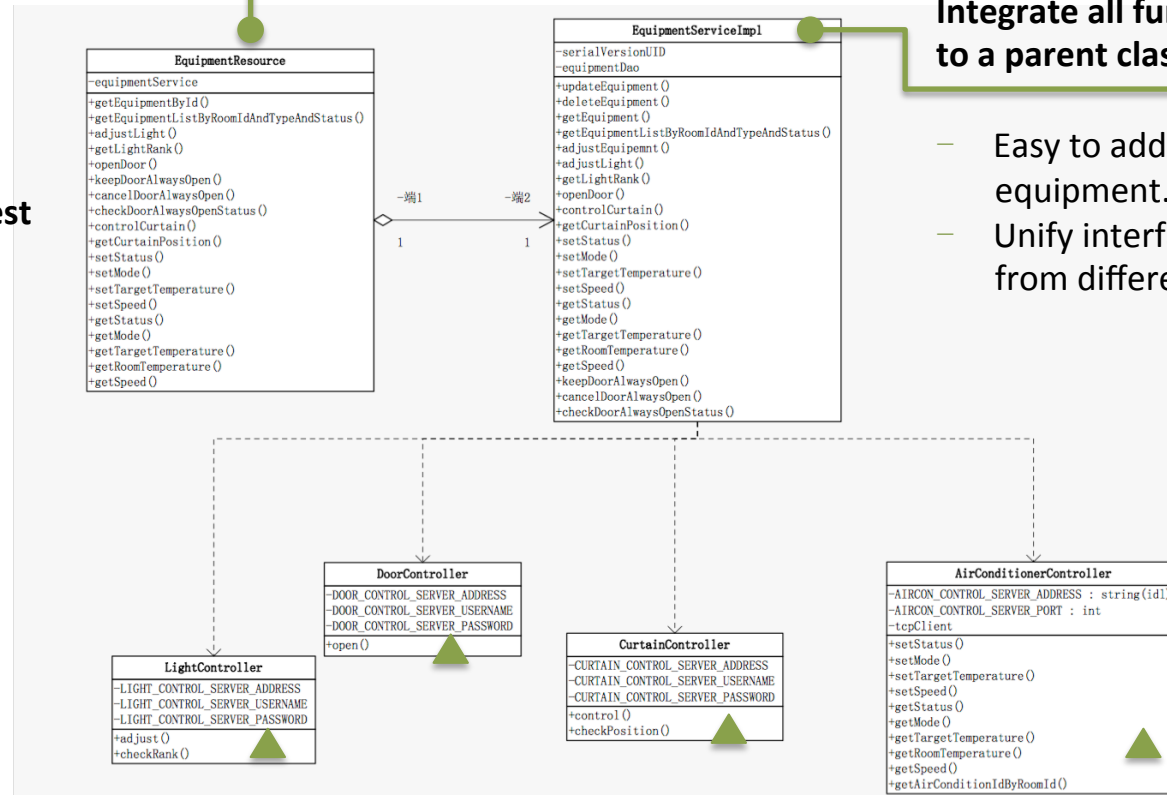
- User optionally belongs to one department . Department owns room.
- User can involve in a project work.
- User reserved rooms.
- User is authorized to control equipment in reserved room.

Relationships

- One user can reserve many rooms.
- One room can be reserved by several users for different equipment.
- Validation and user priority need to be checked.



Parent class is responsible for handling web request with equipment controller



Integrate all furniture controller to a parent class.

- Easy to add and delete equipment.
- Unify interfaces of furniture from different manufactures.

▲ Controller transfer command with password and protocol particularly for individual equipment server.