Learning Management System
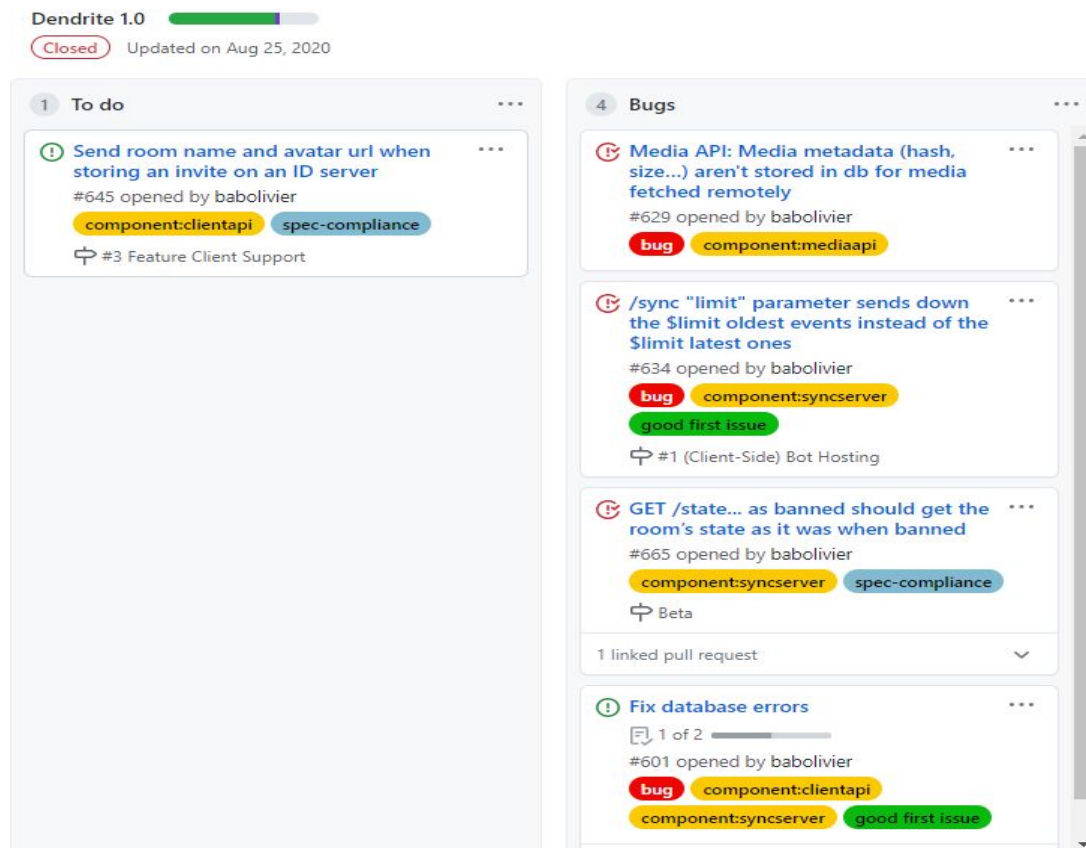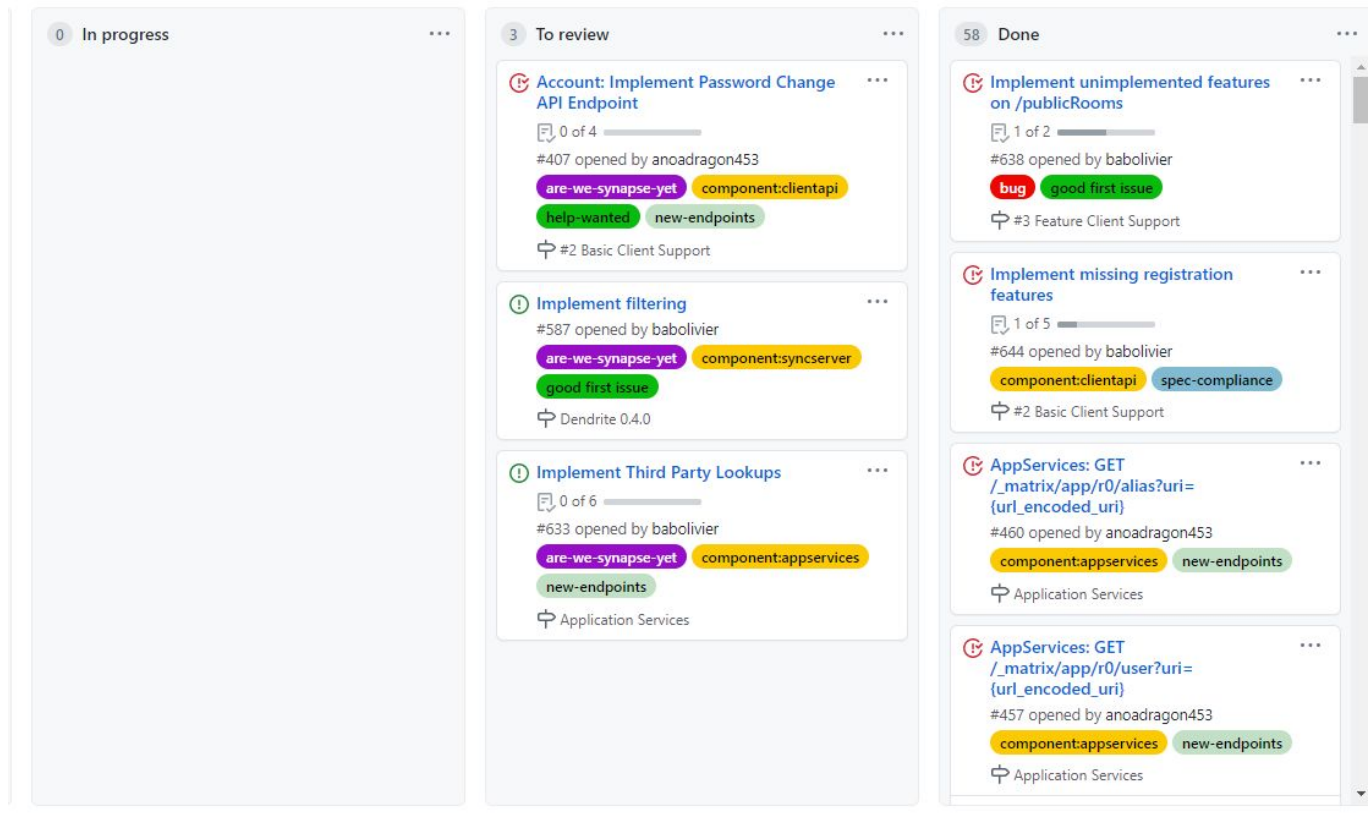# Software Development Activities

Identification of need/Motivation :

The demand and utilization of learning platforms are growing every day especially due to the pandemic. There can be many fields to assist someone to manage their learning. One of the ways to do it can be UG Students who want to pursue Higher Education after their graduation. Many students prepare for competitive exams like GRE and IELTS in order to pursue their higher education from foreign universities located in the USA and Canada. So in order to learn seamlessly about the competitive exams like IELTS and GRE, we are developing a learning platform where one can prepare well and assess oneself by giving regular tests and check his performance whether one is ready for the actual exam or not.

Planning Process

A brief idea of planning can be obtained from the GANTT chart which is shared. We will be using github project dashboard for this. It has a modifiable and easily accessible kanban board-like feature called project dashboard. Here we attached a screenshot of how it actually looks like. It is a powerful project management tool with features like adding labels, to do tasks, to review tasks, milestones, assignees and tasks.

Implementation, testing and documentation

We will be implementing and testing the following features on an iterative basis. Our Tech Stack will include MERN (MongoDB for Database, React for frontend, Express and NodeJS for backend, routing and api development) stack but not limited to it.

Deployment

We will be using Docker for containers and AWS/GCP for deployment.

Features:

Our features include:
- Learning management for a user
  - Tips and tricks for preparation of IELTS and GRE
- Learning through interactive videos
  - Teaching basic concepts through interactive videos and animations.
- Adaptive assessment for enhancing users' performance for GRE
- Normal tests to assess IELTS
- Tracking of users' progress and achievements/goals
  - After every assessment
- Personalized learning journey
- Voice-to-Text
  - For speaking section in IELTS

Features that can be added if above features are completed:
- Video-Sharing platform for users
- Blogs
- Forums
- AI that is an assessment algorithm and recommendation engine
- Chatbot
- Learning for development of some hobby