KEY REQUIREMENTS

- Efficient filtering of candidates for developer profiles.
- Automated reliable scoring
- Customizability of tests
- Fluid UI
- Support for maximum number of languages

USER STORIES

- 2 user roles: Candidates and admin
- Candidate actions: Receives invite link to take test via email, views rules for test, answers the test in the exam console and submits.
- Admin actions: Logs in, views dashboard of active and past tests, sets test using questions from a catalog or custom questions, publishes the test. When the test is complete, he can view the performance of all the candidates with detailed reports.

MODULES

- Authorization module:
  Login/sign up using email-password or using google, github login. Admin access only.
- Admin dashboard module:
  Contains the list of active tests and history of previous tests. Clicking on a completed test displays the performance of all candidates who took the test. It has a button to create test which directs admin to the test creation module.
- Test creation module:
  Has provisions to set the time limit, test name and position available, enable custom questions. Has a catalog of questions the admin can select from.
- Test answering module:
  Has a syntax-highlighted code editor, sample test cases, language selector and output widget.
- Candidate performance module (admin side):
  Lists performance of all test takers and categorizes them. Provisions to filter by score and other parameters.

TOOLS AND APIS:

- Jdoodle compiler API

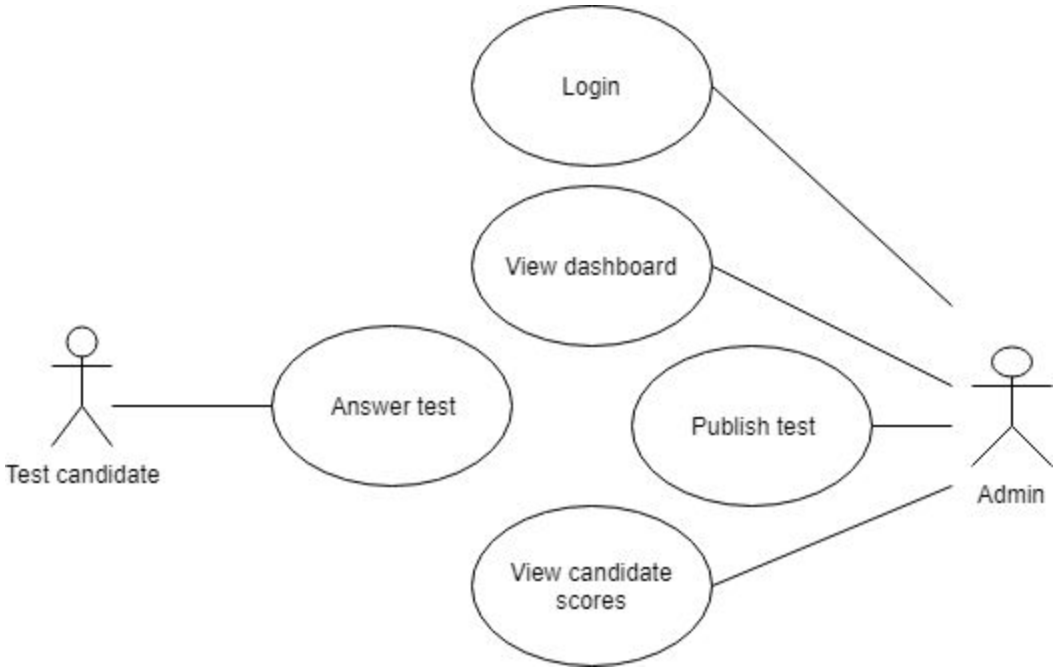
  Online JSON based API service to compile and execute user code.
- Ace code editor plug-in

  Embeddable code editor written in JavaScript
- Firebase

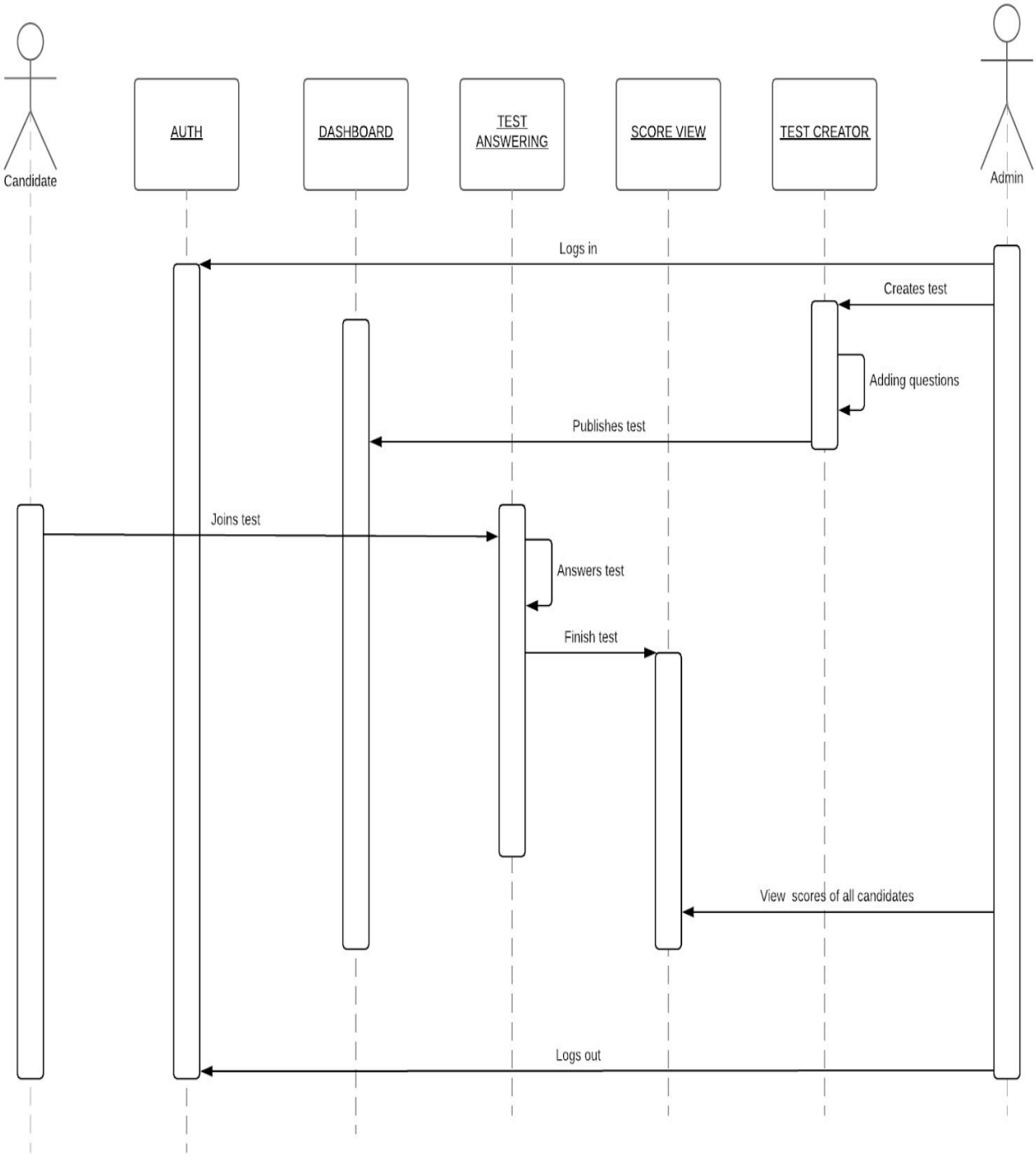
  To help manage user accounts and data
- CK Editor

  To create text editor for admin to edit or create custom quetsions

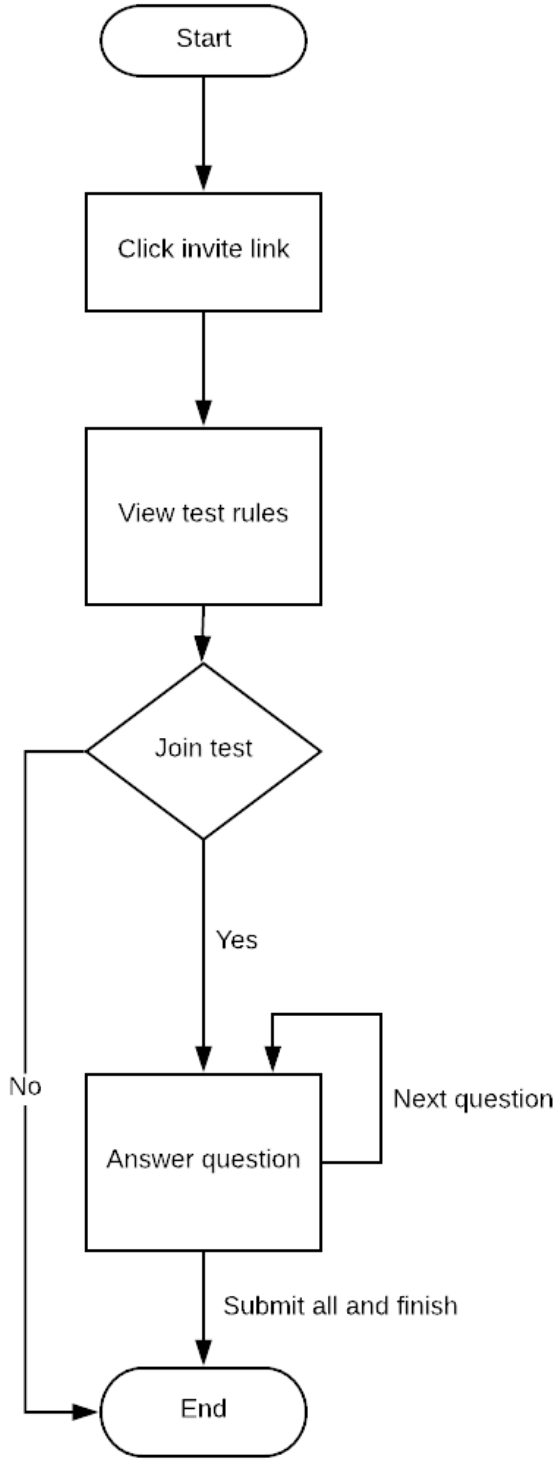
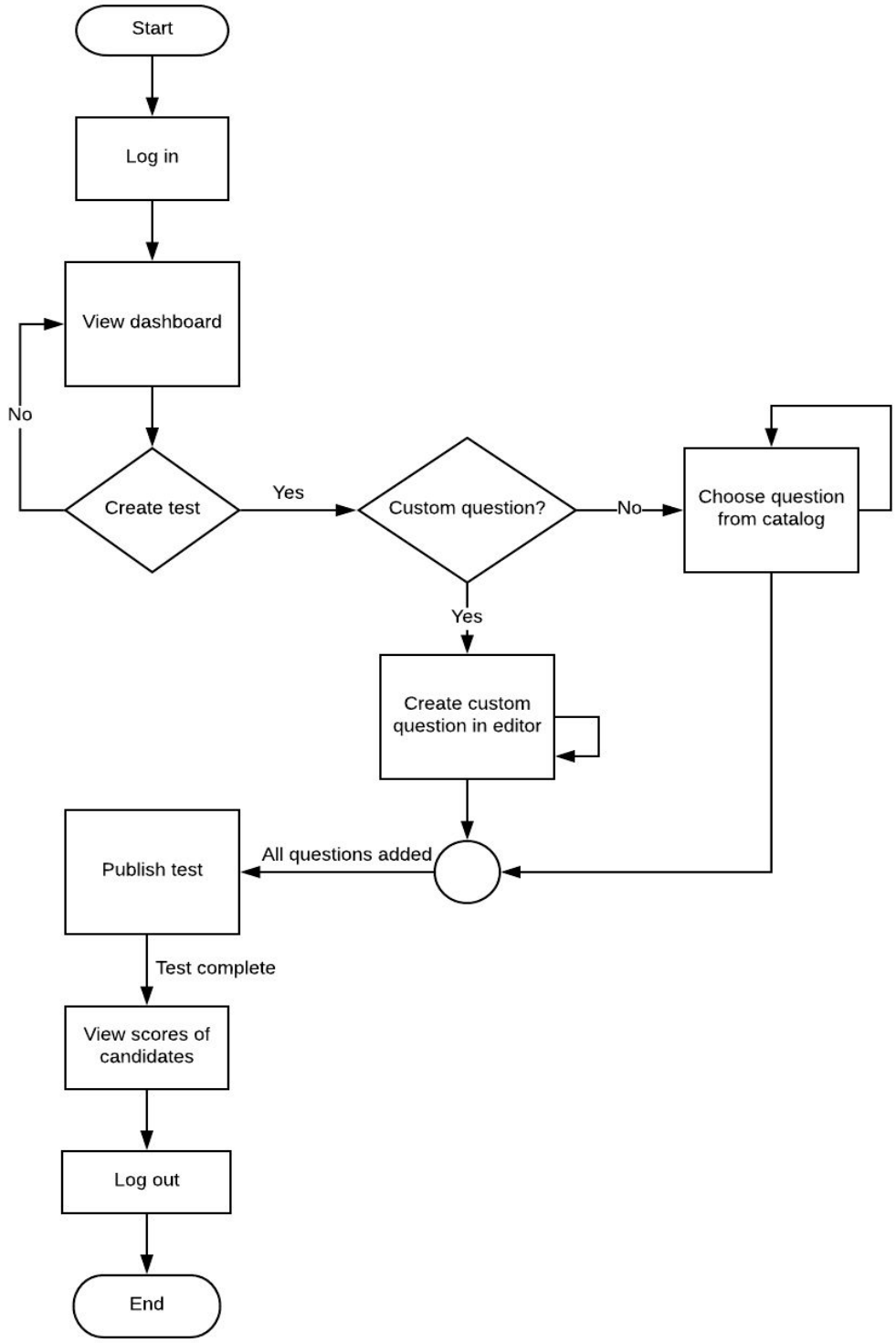
USE CASE DIAGRAM



SEQUENCE DIAGRAM



FLOW CHART - USER POV



FLOW CHART - ADMIN POV