

## Sem Long Internship Assessment

- Mentors : Mohammed Tabrez , Mohammed Shaban, Achraf Ben Alaya

### Internship Goal

The Internship goal was to create an Assessment Tool as Axefinance was coming for the placement drive to increase the headcount of Mumbai Office

### Work done

#### Week 1 - (2 Jan - 6 Jan)

Brainstorming the Assessment Tool idea (Axe Assessment Tool), and planning out the phases that will be followed during the development of the project

Details :- An Assessment Tool is an online platform where we register the candidate and conduct Quantitative and Logical Programming tests. Similar products like Hackerearth, Coding Game, etc

### Phases

- Basic MCQ level Quants and Aptitude level test
- SQL prompt window for SQL based questions in the test
- Proctoring system for the admin to observe the candidate

### Deciding the Technology Stack used for the Axe Assessment Tool

- Frontend - HTML, CSS, JS
- Backend - Express server, NodeJS (javascript runtime environment)
- Database - MS-SQL server

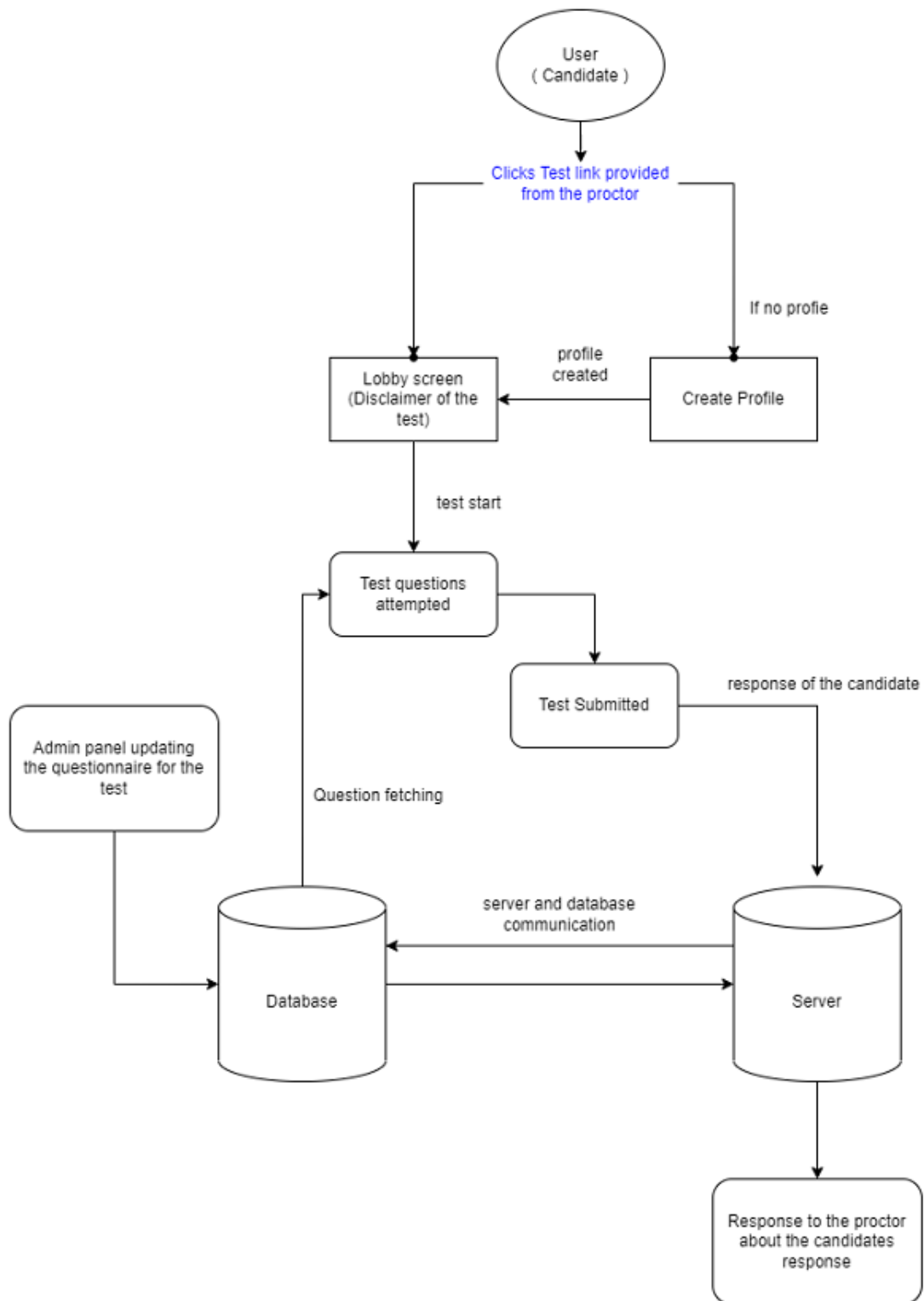
### Writing down the features to be implemented

1. User authentication and authorization
2. Role based Authorization
3. One-time login, login state is persisted for 1 hour
4. Token Login
6. Forgot password provider
8. Test violation system
9. No copy paste of problem statement, options. No data can be copied from the test
10. Candidates question state is maintained
11. Candidate is terminated automatically after he violated the test, more than 2 times

12. Questionnaire is to be updated from the admin panel
13. Candidate can quit the test at any moment
14. Only Admin can have control over Question and Email endpoints

Week 2,3,4 - (9 Jan - 27 Jan)

1. Learning period of the Technology used for the Axe Assessment Tool
2. Creating a Basic Flow diagram of the Users activity for conducting a users test
3. Creating sketches of the Axe Assessment Tool UI



### Week 5 - (30 Jan - 3 Feb)

1. Started with the Implementation of the Backend firstly and tested the API endpoints using Postman
2. Tackling the API Vulnerabilities

Details :- An API vulnerability is a type of security flaw that can allow attackers to gain access to PII and sensitive data or execute other malicious actions. API vulnerabilities can occur when an API is poorly designed or implemented or is not adequately secured.

- Broken Authentication Issues
- Excessive Data Exposure
- CSRF Attacks

3. Created the first draft UI to be implemented using Figma

Details :- [Figma Design](#)

### Week 6,7 - (6 Feb - 17 Feb)

1. Implemented the Frontend part of the project and and hooked it up with the backend
2. Tested with conducting various test users
3. Tried to host it on DigitalOcean server ... but did not continue
4. Progress Presentation of Axe Assessment Tool to Head of Product Department  
**Mr Louay Salti** along with Chief HR **May Gargani**
5. Key-notes from the Meeting
  - a. Change the Backend stack from Express and Nodejs to ASP.NET CORE WEB API
  - b. Use a frontend framework Angularv15 ... latest version of Angular
  - c. Follow a Agile development process
  - d. And a bunch of suggestions on the Use experience

### Week 8,9,10,11 - (20 Feb - 13 March)

1. Learning the ASP.NET Core WEB API .NET 7 latest version framework as the new technology for our Backend
2. Learning the Angular v15 latest version as the frontend technology
3. Learning a new technology Entity framework for making the task of database mapping and creating the schema and creating relations among tables with a code base approach

(Reason for the change in stack is that the product team follows the same stack and it would be helpful for me as they can guide me and help me, and a great opportunity to learn a new technology)

4. Mentors helping with Angular and ASP WEB API part
  - a. Mr. Achraf Ben Alaya

Weekly follow ups done by Achraf for progress and doubt solving

## Week 12.13 - (22 March - 7 April)

1. Implemented the Backend Routes same as the Express server but replicating the same in the ASP WEB API
2. Implemented a dummy project Task Tracker for getting hands on with the newly learned Angular Framework



User			^
GET	/api/User		▼
POST	/api/User		▼
GET	/api/User/{id}		▼
POST	/api/User/login		▼
POST	/api/User/loginToken		▼
POST	/api/User/uploadResume		▼
GET	/api/User/userTest		▼
GET	/api/User/testData		▼
GET	/api/User/userTerminated		▼
GET	/api/User/userViolation		▼
PUT	/api/User/updateUserViolation		▼
GET	/api/User/userId		▼ 🔒
GET	/api/User/userEmail		▼ 🔒
POST	/api/User/forgotPassword		▼
POST	/api/User/updateScore		▼
PUT	/api/User/updateEndTest		▼

### Date (10 April - 17 April )

1. Implemented the Axe Assessment Tool basic screens, extensive work is being carried out
2. Simultaneously connecting it with the backend endpoints
3. Backend Repository Code Review and follow ups with Achraf Ben Alaya and Wafa Farhani