<ASK ME>

Iteration Plan

[Note: Text enclosed in square brackets and displayed in blue italics (style=InfoBlue) is included to provide guidance to the author and should be deleted before publishing the document.]

# 1. Key milestones

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Milestone** | **Start Date** | **End Date** |
| 1- | Our next target was to achieve the security of application from backend to the frontend with the help of **Node JS** and **Express JS** and they are backend technologies to make Restful APIs to use for frontend.  There must be token for the logged In user to log in to any website, so to achieve that we had to use the JWT package to generate the token of any logged In user. After generating the token we create middleware for all the users which includes, Admin, Expert, Student which can make sure that specified user is allow to access the specific route.  **For example:** Only User can create the Question or any only Admin has the access to view all the registered users on the application and to remove them. For that purpose, we had to create **middleware** so it can be guaranteed that only specified user is allowed to do certain task. |  |  |

# 2. High-level objectives

**Objective-2 | Preparing for the Security of Web Application:**

We choose to work with Node JS as a backend, which is the runtime environment of JavaScript and run on browser engine. The first priority of any Product is to make it secure and reliable so anyone can feel himself/herself at home when using the application. In this social world, the security is essential, assures that the data of any user is not hackable, and is encrypted.

We use certain packages and custom middleware to project the routes for specified users only. Every user (Admin, Student, and Expert) has his/her own role and these roles managed properly from backend without any loophole. With the help of certain package, we can generate TOKEN of logged In user which make sure that the user is logged In and holding the token. That makes the whole security of system that is happening through the flow.

# 3. Evaluation criteria

**Security Evaluation with JWT and Middleware:**

JWT or JSON Web Token holds the responsibility to generate token of any user with the help of User Id and we can use that token to hold the information of any user. It guarantees that the user holding the token is logged in and can successfully log in. We test the JWT with the help of user Id and pass as an argument to the JWT function and it worked by giving back the token, then we hold and save the token of the user for further processing.

By holding the token we generate our Middleware functions for all the users to make sure that only specified user can hit the specific route. It all work fine after running the

# 4. Work Item assignments

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Work Item ID** | **Name or key words of description** | **Outcome** | **State** | **Assigned to (name)** | **Estimated Hours** | **Hours worked** | **Estimate of hours remaining** |
| 2.1 | JWT Authentication  With Node JS and  Express | Implement the JWT authentication to generate token for logged In user. Stored the token in separate variable and generate a protect function which makes sure that the user is logged In. | Complete | Zaryab | 1 day | 1 day | 0 |
| 2.2 | Middleware | Create middleware functions for every type of user, which includes Admin, Student and Expert. It makes sure that the certified User is hitting the specified route. | Complete | Zaryab | 2 days | 2 days | 0 |

# 5. Issues

|  |  |  |
| --- | --- | --- |
| **Issue** | **Status** | **Notes** |
| The Second issue was, we were having difficulty to connect the backend with the frontend which makes it a complete development. | We searched about the APIs, how to make them and how to call them. | We write down the whole procedure how the APIS are made from the backend and how we can call them in front end. |

# 6. Assessment

**Assessment:**

We assess the Product all at once in the end and we came to some conclusions, which are mentioned below:

|  |  |
| --- | --- |
| Assessment target | Analysis of the Product |
| Assessment date | 31st May 2022 |
| Participants | Zaryab, Sahil |
| Project status | Green |

* **Assessment against Objectives:**
* We successfully able to complete all the requirements and challenges. Our main objective was to build a full fledge system which can fulfil the requirements of the real world users.
* **Work Items: Planned compared to actually completed:**

We plan everything to complete in certain amount of time and successfully completed the Scalable Product.

* **Assessment against Evaluation Criteria Test results:**

Since every aspect of the Web Application passed successfully from major use of the application, which tells us that Application is fully responsible to make to live for general public.

* **Other concerns and deviations:**

We happened to have a discussion with one of the stakeholder who promised us to give the healthy amount for the growth of the Product. There is still not any conclusion but the discussion goes on.