

Research Document

Individual project

Tutor \*\*

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## Versioning Table

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| --- | --- |
| Date | Content |
| 14/10/2022 | * Document initialization * Form main question and start forming sub questions |
| 31/10/2022 | * Add research header to specify which methods of DOT framework were used to answer sub-questions |

1. Main question

* How to authenticate and authorize users in a secure way without affecting the user experience using JWT.

1. Sub questions

* How to authenticate a user before login into the system?
* How to keep the user authenticated without asking him to authenticate on every request?
* How to secure the tokens from cyber-attacks?
* Where to store the tokens?
* What is the ideal lifecycle for a token?

1. Research methods

When I started researching, I first had idea of what I wanted to implement. The next question was how I should do it. To find an answer to this, I started to look through many videos and posts. But unfortunately, I wasted a lot of time and just got more confused as what is the right way to implement my idea, everyone had a different opinion of the way it should be implemented. After gathering all the information, I decide to make it in my own way and take a small part from each resource. I also did an ethical review, but the best practices I discovered were not good enough, as they did not provide the security I needed. After reviewing the code provided to me in result of library research type and finalizing an IT architecture in my head, I tried again to consult an expert to check if the idea I had in mind is secure and efficient as I thought. This was the last step of making the right decision fully integrating the process in my application.