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# **Technology Investigation Summary**

**for**

# **FOES Data Management System**

**Version 1.0**

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**7 April 2022**

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## **Revision History**

<b>Name</b>	<b>Date</b>	<b>Reason For Changes</b>	<b>Version</b>
All Members	7/4/2022	Initial Draft	1.0

# 1. Introduction

Contributor(s): [Jing Ru Ng](#)

This document includes the selection and comparison of the technology stack that will be used in the project “FOES Data Management System”. The research and studies have included 5 components which are frontend technology, CSS framework, backend technology, database system and storage and deployment, they are all based on the project requirements and done by each team member. The details of the analysis and studies can be found in the separate document as link below:

## 2. Summary of the Technology Stack

Contributor(s): [Chian Hui Lee](#), [Jing Ru Ng](#), [Kyu Seok yeum](#), [James Siew Huei Wong](#)

Topics	Technology Chosen	Compared With	Justification
Frontend Technology	Laravel Blade	React Angular	As we are using Laravel for our backend, using Laravel’s own Blade templating engine makes the most sense out of all the options. It comes with its own directives like conditional and loops in the frontend itself in order to display data.
CSS Framework	Bootstrap	Tailwind CSS	Bootstrap follows a generic pattern and Tailwind CSS is more unique and flexible on the UI design. However, UI design is not the primary goal and Bootstrap is more popular and easier to find tutorials and forums about it compared to Tailwind since it is newer.
Backend Technology	Laravel	Express.js Spring Strapi Firebase	Laravel is an open source framework which is free to use. Laravel is easier to implement full stack applications compared to the other frameworks as it consists of built in ORM, testing environment, easy exception handling, and simplified URL routing features.
Database	MongoDB	Cloud firestore	MongoDB provides a more secure environment than firebase. MongoDB is dynamic because it does not have a fixed schema. It also provides the advantage of flexible field addition and deletion, whereas firebase is complicated when dealing with relations.
Storage & Deployment	Curtin University’s own hardware	-	As this project is an internal project, all of the storage and deployment would be handled by Curtin University’s internal hardware as compared to other third party solutions.