**FACULTY OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY**

**UNIVERSITI MALAYSIA SARAWAK**



**FINAL YEAR PROJECT BRIEF PROPOSAL**

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Project Title: Post fire disaster management system

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**Introduction**

The fire and rescue department of Malaysia (FDRM), which usually known as Bomba, has a mission that mentioned that they are committed to provide professional fire and rescue service using latest technology and resources effectively towards saving lives, properties and the environment. However, how can this be measured and how to determine whether the objectives are being achieved? It is without a shadow of a doubt that human feedback is not sufficient as input to generally improve the performance of the firefighting agency and here is where the post fire data analysis part come in. With collection of data and statistics of each post fire incident, the agency will be able to gain more insights from the statistic and they can determine which field or areas require more improvements and work on that field. Hence, a dashboard system that visualize the data and statistics collected will come in handy with few benefits for the agency to study the data to make amendments to their future actions or to determine the needs for additional training with the sole purpose to provide better services, to be named a few.

**Problem statement**

The project will emphasize on seeking the answers to questions like: What kind of data and statistic are required for fire disaster management, how does the dashboard system provide aid in fire disaster management, and how the dashboard system visualize the fire disaster related data and statistics?

**Objectives**

* To analyse the data and statistic for fire disaster management
* To design a dashboard system that visualize fire disaster related data and statistic
* To develop a dashboard system that visualize the fire disaster related data and statistic

**Methodology**

The methodology chosen for this project will be the waterfall approach as there are almost 9 months duration given to complete the project. Moreover, the waterfall approach is simpler and more straightforward where it clearly defines stages that align the task and milestones of the project in an easy to understand manner. Below are the draft and brief steps that will be taken to conduct the project:

1. **Requirement gathering and analysis**

* Gather and analyze the post fire data and statistic that needed
* Gather and study the information, skills and tools needed for this project

1. **System design**

* Study the data and statistic collected and figure out how to prepare the data through the system

1. **Implementation / Development**

* Develop the dashboard system using the tools acquired

1. **Testing**

* Test the feature of the developed dashboard system and look for the faulty parts and bugs

1. **Debugging**

* Debug and fix the faulty parts of the dashboard system found in the testing phase

1. **Closing project**

* Finalizing the project and complete the documentation

**Motivation**

The motivation of this project is to provide support and enhancement to the decision making of fire disaster management with visualized statistic and data.

**Scope**

The scope therefore will be focusing on post fire disaster data and statistic necessary for the fire service agency to plan measures and design features to build the dashboard system. The scope will only include the post fire disaster data and statistic from city and town areas which in other words, fire incident that took place at forest or other areas are not being included in this project.

**Project schedule**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Task | Start Date | End Date | Days to complete | Weeks to complete |
| Initializing | 12-Oct-20 | 23-Nov-20 | 42 | 6 |
| Designing | 24-Nov-20 | 05-Jan-21 | 42 | 6 |
| Development | 06-Jan-21 | 26-May-21 | 140 | 20 |
| Testing & Debugging | 27-May-21 | 24-Jun-21 | 28 | 4 |
| Final Testing | 25-Jun-21 | 02-Jul-21 | 7 | 1 |
| Closing Project | 03-Jul-21 | 10-Jul-21 | 7 | 1 |

Figure . Gantt Chart

**Expected outcome**

The expected outcome of this project is a dashboard system that visualize the data and statistics inserted through the form prepared in the system. It is hoped that the developed dashboard system will be able to provide aid in the fire disaster management.