## Proposal for the development of Spare Management System:

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[Note: This is an informal document and I will focus on content rather than format and formalities.]

## Overview:

It seems that the scope of this application is not limited to just Tyres but also includes any spare part with certain life span. What I have understood so far is the client needs a complete functioning system that will handle the management of any spare and replaceable parts. The system should be able log all the details about the parts and their working hours. That data will provide a history and usage of the parts. The client also wants the system to be easy to view the summary of the parts. For example, having the Hour meter for the parts to indicate the number of hours run so far. One of the vital purpose of the application to calculate the hour run by any equipment when that component gets defective and also check and notify if it got damaged before the warranty period.

## How will I proceed in developing this application:

Most of the requirements of the application have been clearly specified in the document. The working of the needed application is also described by the document to most extent. So, the majority of the things are already finalized.

The application will have 2 major tables. One is for component class and second will be individual component. The individual component is the type of any component class. All the properties of the component will be described in the component class table. Some of data to be stored in this table are Component type, Expected life, Stock quantity etc. Data related to individual components will be stored in other table. Some of the data that will be stored in this table are Fitted date, Fitted by, Manufacturer etc.

There will be other important tables as well. They include tables for logging the used hours and for defected components.

## Workflow of the application:

The application will have a dashboard from where user can enter the list of available components in the inventory. The dashboard will display the summary of currently active components that are in use. It will also show any alert or message that is available such as any component nearing expected life. It will have feature to enter the detail of damaged component. During that process the system itself will calculate the total worked hours and other details and check if the component got defected prematurely.

User will be able to view the detail of active and defected components from the dashboard. There will be a logging section where daily working hours of the component can be entered. The logged details will able be available for view under the dashboard.

## Programming language and tools to use:

1. PHP as server side language.
2. JavaScript as client side language.
3. JQuery for making the application dynamic and interactive.
4. Alternative languages and tools can also be used in place of above listed tools which include Node.js, Angular or any other JS library.

## Time Scale:

I can start working on this project as soon as confirmed. The demo can be made ready in under a week. The final product can be delivered in about 2 weeks times. It is mentioned as urgent requirement, so I can work extra hours to get the things done as early as possible.

## Budget:

The specified budget for this project is a bit low for the complete system like this. So, the enhancement such as making the system more interactive and dynamic, including the data visualization for better and easy reporting cannot be provided this budget.

## Further Enhancement:

1. Including data visualization elements such as Graph, Chart etc. for easy and better reporting.
2. Making the application more interactive and dynamic making it easier to use and more user friendly. For example, rendering results with fewer pages reloads, using interactive and visually appealing styles and effects etc.