Design and Development of Fire Safety Inspection Management System with GIS-Based Fire Susceptibility Mapping of Panabo City

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A proposed project title submitted by:

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PLANNING

The project team has presented a proper request for the development of the project to SNSP Janeth B. Mapesos – Lequigan, the acting city fire director of Panabo City Bureau of Fire Protection. My team led an environmental scanning and interviewed one of the staff in regards to the issues experienced inside the establishment as well as in the area of fire safety. The Project team distinguished the difficulties the establishment had experienced and had to provide answers for the presented issues.

So the Fire Department in the area of Fire Safety currently relies on Microsoft Excel in encoding the whole information for the application of the renewal of establishment. Additionally, from the inspector's side of their process, they tend to also have their problems with their listed inspection recorded along with the financial prerequisites like

inspection fees, fines, etc. that is crucial for the affirmation of the fire safety inspection certificate that is currently on a paper-based approach. Thus, the project team discovered that the issues that are laid should be assembled and computerized measure time, proficient and bother free.

After that, we have decided what are the plans of what we are going to do the with our system. The design process including the modules, architecture, components and data needed based on the specified requirements needed to fire safety.

ANALYSIS

My team ensures the planning phase has been followed, the project team has carried an analysis in which they have carefully observed the contents that will be fit for the project system. The system consists of two applications: mobile and web. The web-based application functions for the admin part of the system but worth noting that the application should run with the availability of the internet or else the system will not run. The features of the administrator, like managing the client's application and their submitted information. It also has the monitoring of inspection status for the applicant, like for inspection, rejected, recommending for re-inspection, and approval.

Once the inspection has been successfully approved for the applicant, it will be moved for payment status acquiring the certificate, these cases are for the buildings that are high-rises where inspection comes first. Other than the Fire Safety Process, added features are the Susceptibility Map and Emergency Distress Call, these features added the usefulness where the admin can track the probability of fire incidents in Panabo as well as responding to the distress calls from the unfortunate establishment who have caught. Additionally, extra measures have been made by the project team on the distress calls to lessen the prank calls and increase the legitimacy of the emergency. The admin serves as the main control in handling the information coursing through both the inspectors and applicants, it has the privilege of viewing the applicant's data, editing the status of the applicant, and overseeing the information held by the inspector.

DESIGN

All aspects of the project system, including its highlights and usefulness, are characterized by the project team, at that point, the team gathered at one of the member's house, Mr. Ortega as they used various instruments and programming applications to accomplish the proposed system's overall functionality. At first, the project team is ready and planned the UI into an easy to use by executing interface that aims to be straightforward for the clients to utilize.

In planning out the general design of the system, the members had used programming applications. Sublime Text 3 for coding the system, and PHP is the

programming language that is utilized for the proposed application. The said programming language is an open-source, worker side, HTML implanted prearranging language used to make dynamic site pages reasonable for this venture. Furthermore, the project team used the XAMPP control board to oversee Apache and MySQL.