Chapter 4

**SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS**

This chapter summarizes the study's findings and the conclusions to the problems of developing the proposed Monitoring System for Bolinao and provides recommendations on its proper implementations and further developments.

**Summary**

This research aims to design and develop Monitoring System for Bolinao that will aid the Bolinao Tourism Office in tourist activities in the locale.

Furthermore, this study aims to achieve the following:

1. Identify the existing process and monitoring techniques of Bolinao’s Tourism.
2. Identify the problems encountered within the existing process of Bolinao Tourism Office.
3. Devise features to be integrated in the proposed Tourism Monitoring System; and
4. Determine the acceptability level of the developed system: a) Functionality, (b) Reliability, (c) Usability, (d)Efficiency, (e)Maintenance, and (f)Portability

This project study utilized Microsoft Visual Studio Code as the IDE alongside Laravel PHP Framework as the programming language to implement the different features of the proposed system using Scrum Methodology. The Scrum Methodology has the following phases: a.) Initiation, b.) Planning and Estimation, c.) Implementation, d.) Reviewing; and e.) Releasing.

**Conclusion**

Based on the findings, the following conclusions are drawn:

1. The existing process of the tourism office was a collection of tourist data through the distribution of registration forms from tourist sites and establishments. The collection of tourists' data is done via manual collection and Google Forms. The two monitoring techniques must be simplified using a web-based approach to centralize the collected data more efficiently.

2. The tourism office has encountered difficulties in collecting data due to network signal interruptions, particularly in remote areas of Bolinao where tourist sites and establishments are located. These interruptions impact the efficiency of data collection, encoding, and report generation in the tourism office. Moreover, guests visiting the area face inconveniences due to the limited information available about the status of destinations.

To address these challenges, the developed web system provides a solution by offering a centralized data collection approach that takes into account the problem of network signal interruptions in various sites. This web system streamlines the process of collecting, encoding, and compiling data, enabling the tourism office to efficiently and accurately manage the collected information. The design of the web system is tailored specifically to simplify the current processes in the tourism office, ensuring that data management becomes more efficient and effective.

3. The proposed system includes the following features: (a) Register account with OTP implementation, (b) User Profile Setting, (c) Dashboard, (d) Live Map Counter, (e) Booking, which allows users to request entry, (f) Manage Request, including options to Cancel Request, Leave destination, and Check the status of the booking, (g) Staff Account Creation, and (h) Notification. The web system's live count feature facilitates monitoring tourists' movement, proving helpful for the tourism office.

Tourists or guests can easily fill out their registration forms through the simplified process provided in the web system. The collected data is efficiently managed and organized, significantly reducing the workload of the tourism office. Additionally, the web system offers a way to lessen the statistician's workload in verifying the accuracy of the collected data. Overall, the system proves to be highly beneficial for the tourism office, improving data management and streamlining various processes for better efficiency and effectiveness.

4. Based on the results of the proponent's survey, the weighted mean in terms of functionality, reliability, usability, efficiency, maintenance, and portability is 3.78, which reflects as Acceptable; therefore, the developed web-based system can now be adopted for implementation by the Tourism Office of Bolinao.

**Recommendations**

The following were the recommendations for the implementation and further development of the system:

1. To use the web application, the tourism office will receive hands-on training. During the training, the staff members will be familiarized with the features and functionalities of the system, as well as instructed on how to perform various tasks and operations within the application.

2. It is recommended to train the user of the staff accounts of the location in using the web-application specially in cases that there is network signal interruption.

3. To effectively use the web-application, the tourism office should secure their server and domain to avoid network attacks such as DDoS.

The web-application should receive updates through GitHub after implementation. Code collaborators should use branches to create PRs to compile fixes or updates easily.