**Chapter 3** **METHODOLOGY**

This chapter presents the method of research used, sampling technique, instrument, data gathering procedure, statistical treatment of the data and the system architecture of the software.

**Research Design**

The researcher will use the descriptive survey method in which she will apply in this study. The purpose of this study is to know the percentage or the total assessment of the current web event portal services for the students around metro manila, the evaluation of the current events management of each selected universities in metro manila, and the level of acceptance of the proposed system.

Calmorin (2002) explains descriptive method as one that concentrates on the present condition where the purpose was to find a new truth. Descriptive studies are valuable in providing facts in which specific judgments may be based. This study is primarily concerned with on the assessment of the evaluation of events management per universities, and on how they use the web services in terms of publication.

The researcher will gather the data using the research instruments to acquire the necessary arithmetical data and statistics that is based on the respondents’ nature of answers.

**Sources of Data**

The population used in this study will come from the selected different universities around Metro Manila area. The population to be selected are the university administrators that administers and manages events of a particular university.

The researcher will use purposive sampling to accumulate the data needed for the said study. The researcher will select the university event administrator to answer the given questionnaire. The researcher will also use the some sample data from each university to determine the differences in each universities.

**Research Instrument**

The researcher will use the questionnaire as the primary instrument in conducting the study which includes the different certain questions. The questionnaire is designed to get the percentage or the total assessment of the current student’s evaluation in accessing events, the assessment of the current events management and publication of the universities.

The questionnaire answers the issues and questions of the statement of the problem number 1, 2 3, 4.

The researcher will use the following software: (a) xampp, using mysql for databasing and phpMyAdmin for local-hosting in times of development; and (b) sublime text editor for programming the web system; The researcher will use a computer hardware with these following specifications: (a) laptop with Intel i5 3rd generation to 5th generation processors; and (b) equipped with 4gb ram;

The researcher used the Likert Scale or Point Scale to determine the respondent’s response in a particular statement.

### Table 1

**Likert Scale for Level of Agreement**

|  |  |
| --- | --- |
| **Numeric Value** | **Response** |
| 5 | Strongly Agree |
| 4 | Agree |
| 3 | Partially Agree |
| 2 | Disagree |
| 1 | Strongly Agree |

### Table 2

**Corresponding Remark for Likert’s Scale**

|  |  |
| --- | --- |
| **Score** | **Corresponding Remark** |
| 4.01-5.00 | Excellent |
| 3.01-4.00 | Good |
| 2.01-3.00 | Satisfactory |
| 1.01-2.00 | Fair |
| 0.01-1.00 | Not Good |

**Data Generation Procedure**

The researcher will accumulate the local and foreign related literatures and studies mostly through online web research.

The researcher will ask the selected respondents for their availability and level of willingness in terms of answering the survey. The respondents will come from different selected universities around Metro Manila area, and the researcher has two types of approach, through giving them a conventional paper questionnaire and by making them answer through online survey, by using google forms. The set of questions per questionnaire will differ depending on what kind of respondent will answer, if it is a student or an event administrator of the university.

The respondents will answer the questions that describes themselves as an individual through demographic profiling, and then, if a student, their evaluation on their current experience in accessing local university events, and if an event administrator, about their evaluation on their current events management and publication methods.

Also, the testing of the system will be done through the use of the developer’s laptop.

**Ethical Considerations**

The following was observed in gathering the data:

1. The researcher will produce multiple copies of conventional paper questionnaires and by making online surveys through google forms, to distribute to the respondents.
2. In this research, the researcher will not force the respondents to answer the survey questionnaire, considering their willingness to participate in the research
3. The researcher will keep the respondents’ personal information confidential.
4. The researcher will explain to the respondent the objectives and the details they need to know before answering the questionnaire.
5. The researcher will not harm or abuse the respondents both physically and psychologically, in conducting the research.
6. The researcher will conduct the surveying in a calm and friendly manner to ease the tense and to establish rapport with the respondents.
7. The researcher will ask for permission in getting the information of a certain university, particularly, in terms of event creation and publication.

## **Data Case Analysis**

The following statistical tools will be used to give meaning to the data to be gathered:

1. **Frequency and Percentage** was utilized to determine the demographic profile of the respondents of the study.

Wherein: P = percentage / f = frequency

n = total number of the respondents

**F =**  Wherein: n= total number of responses

N= total number of respondents

1. **Weighted Mean** was used to determine the level of agreement of the respondents on the accessibility in university events and evaluation in events management and publication of the university. It will be also used to get the mean average of the level of acceptance of system’s capabilities, in accordance to the respondents’ answers.

Wherein: f = frequency

x = corresponding rank of the verbal Interpretation

n = total number of the respondents

## **System Architecture**

Figure 5. Green Light System Architecture

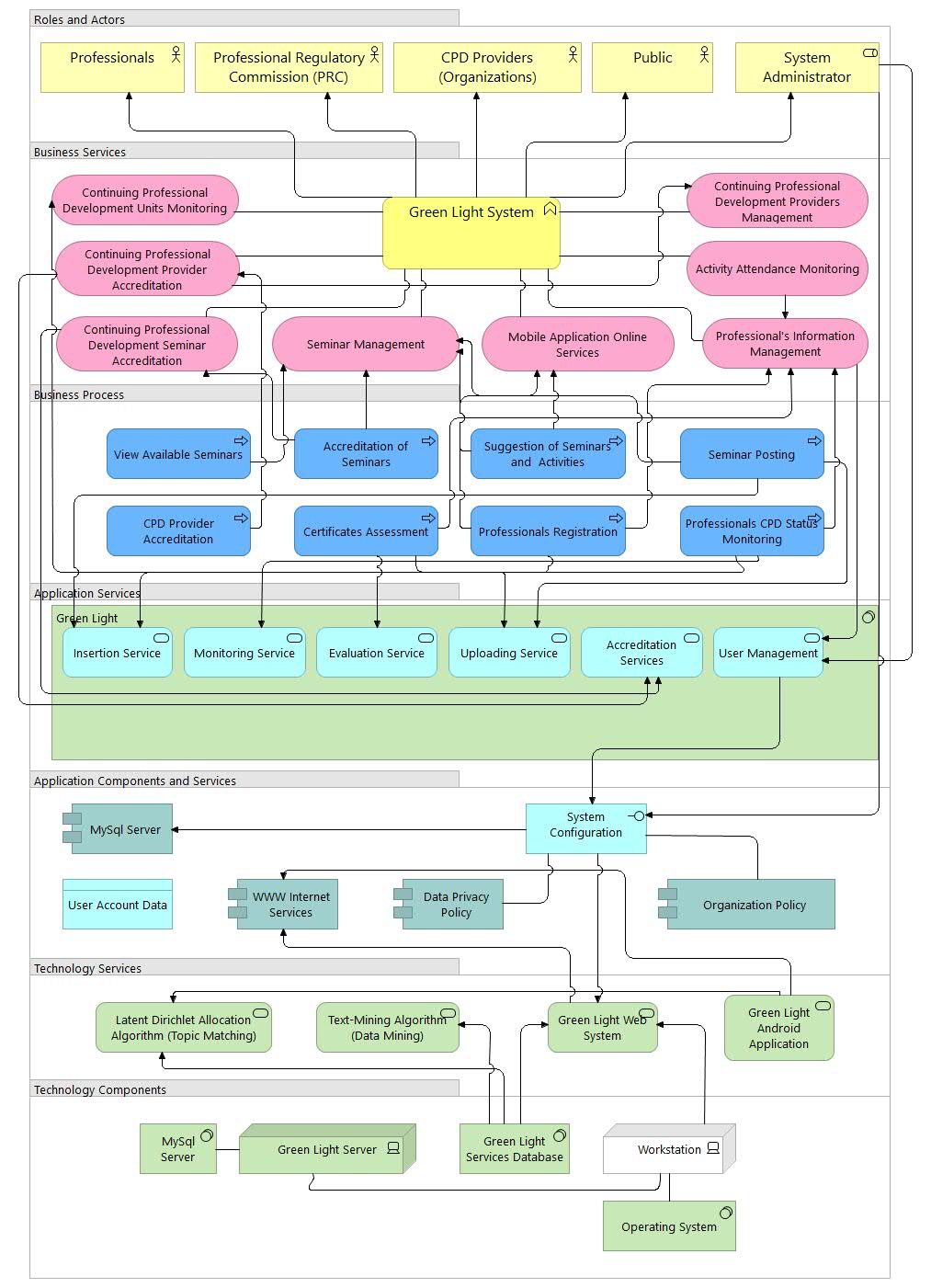


Figure 5 shows the components of the developed continuing professional development application system – Green Light. It has 7 classifications consist of the roles and actors, business services, business process, application services, application components and services, technology services and technology components. There are 4 roles and actors in the system, these are the professionals, professional regulation commission (PRC), the organizations, the public, and the system administrator.

In the business services, Green Light includes Professional’s Information Management, Continuing Professional Development (CPD) Seminar Management, CPD Providers Accreditation, Seminar Accreditation, Mobile Application Online Services, Activity Attendance Monitoring, CPD Unit Tracking and Professional’s Information Monitoring.

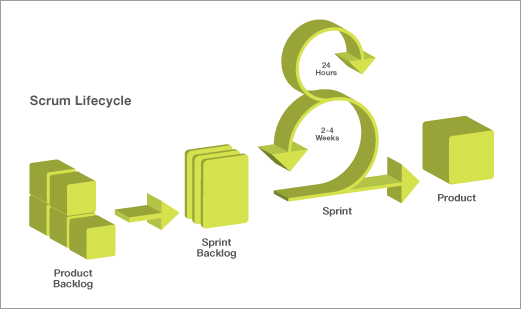
The business process of Green Light System Architecture contains 8 activities such as the viewing, posting, accreditation and suggestions of seminars, accreditation of CPD providers, certificate assessment, and professionals’ registration and CPD status tracking. For the Application Services, it has 6 modules named as Insertion Service, Uploading Service, Monitoring Services, Evaluation Services, Accreditation Service and the User Management.

The system used MySQL Server for storing the data of the Professionals, the www internet services for seminar mining and matching, and includes a System Configuration to update the Data Privacy Act and Professional Regulation Commission’s Policy.

The system used technology services such as mobile application, text-mining and topic-matching Algorithm and Web system. There are 4 technology components involved in the system, these are MySQL Server, Green light Server, Green light Services Database and the Workstation for the operating system.

## **System Development**

Figure 6. Agile Scrum Development Life Cycle



The figure shows the agile scrum development life cycle which will be used in the development of the proposed system. Agile scrum development is an iterative and incremental framework for managing software/product development. It is a full strategy where development team work as a unit to reach a common goal in a short period of time.

The researcher will be utilizing this software methodology to deliver a quality prototype with a minimum amount of time, equipped with a fast-paced development environment and quality assurance, that helped the researcher to use the prototype as an instrument for survey.