EVENTO: Leo Club's Event Handling System

(A Mobile based application)

For

Leo District Council 325 J

By

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A Summer Project Report Submitted to

Faculty of Management, Tribhuvan University

In partial fulfillment of the requirements for the degree of

Bachelor of Information Management

Kathmandu

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STUDENT DECLARATION

This is to certify that I have completed the Summer Project entitled "**Evento: Leo Club's Event Handling System**" under the guidance of "**Mr. Ujjwol Shakya**" in the partial fulfillment of the requirements for the degree of Bachelor of Information Management at Faculty of Management, Tribhuvan University. This is my original work and I have not submitted it earlier elsewhere.

Date: 4th September 2023 **Signature:**

Name: Bishal Phuyal

CERTIFICATE FROM THE SUPERVISOR

This is to certify that the summer project entitled **Evento: Leo Club's Event Handling System**" is an academic work done by "**Bishal Phuyal**" submitted in the partial fulfillment of the requirements for the degree of **Bachelor of Information Management (BIM)** at Faculty of Management, Tribhuvan University under my guidance and supervision. To the best of my knowledge, the information presented by him in the summer project report has not been submitted earlier.

_____

Signature of the Supervisor

Name: Mr. Ujjwol Shakya

Designation: Mentor/Supervisor

Date: 4th September 2023

ACKNOWLEDGEMENTS

I would like to express my thanks to all those personalities who have helped me directly or indirectly doing this project, this project would not have been possible without the help of these people.

Firstly, I am grateful to all the mentors and especially my mentor "**Mr. Ujjwol Shakya**". He has helped me in every stepping-stone of my projects and guided me thoroughly through every big or small mistake in my project. This has helped me sharpen my edges on connecting my academic project more to real-world usable software.

Special thanks to "**Mr. Navin Manandhar**" who has notified me of every negligible mistake in slides and reports that has the possibility of ruining professionalism.

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I am so grateful to Leo District Council 325 J for providing the necessary resources and facilities to conduct this research. Their support and encouragement have been pivotal in enabling the completion of this project. Especially to "**Leo. Mr. Pratap Pancha Tej Bachracharya**" and "**Leo Mr. Kiran Thapa Mainali**".

Additionally, I would like to thank all my colleagues, who provided feedback and reviewed the report, offering valuable suggestions and improvement. Especially to **Ravi Singh** and **Prabin Buddhacharya**, who have been great friends and critics.

Sincerely,

Name: Bishal Phuyal (9997//19)

EXECUTIVE SUMMARY

With this project, I have tried to attempt to transform all my theoretical and academic knowledge into a real-world practical solution. This summer project report has been written about the system built upon the event-managing problem arising in the non-profit organization Leo.

In the first part of the project report, the background of the study has been written which shows about the project details in short. The introduction of **Leo District Council 325 J** i.e., with their current event managing system, is mentioned. The general objectives of the event management system project are to partially fulfill the requirements for the degree of the BIM (Bachelor of Information Management) program as well as to provide a system with enough information about the organization and specific objectives for long-term is to make the event management system running in real-time. The data and information are obtained from an interview with Leo District Council 325 J and a survey questionnaire with the Leo members and through field visits. The tool for making reports in MS Word, Visual Paradigm, and for developing projects Visual Studio Code, NetBeans, Firebase for Authentication, and Firestore for Data Storage is used. Languages used for developing mobile applications are Flutter – Dart and for developing Desktop applications are Swing – Java.

In the second part of the report, an analysis of tasks and activities of the current existing system has been written. The status of the existing system is analyzed. The problems of the organization are analyzed. So, requirement specification is specified into functional and non-functional requirements, which shows the functionality of the organization. A feasibility study is done as technical, operational, economic, and technological feasibility. The system is analyzed and shown in different UML diagrams like for data modeling, Firebase Firestore Screenshots, class diagram is presented likewise, use case diagram shows the functions of the system actors, activity diagram, sequence diagram is shown in the system models.

The project report contains the discussion about the project and the report is presented. The conclusion of the report is presented. At last, screen shots of the application are presented including a questionnaire.

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CHAPTER I: INTRODUCTION

1.1 Background

The report is prepared on Summer Project entitled “Evento: Leo’s Event Management System”. Event Management System is a system where the organizer of the events has a specific computerized program where they can connect with their members. Individuals who are enthusiast to go into the events will have the space to search out for events where user can see events details, search events, Wish list events, see comments and reviews and share their own ideas. For the Admin part, the main Parent Club will manage the authentication and system use of all the Leo club of that district, after which every Leo club registered on this system, will have access to add events, modify events, and see the review of people from that event, which give them more control over the events they are organizing. For the Individual part, our system with a good recommendation system and search system will bring only that event in to their feed page that they might want to go.

A lot of Individuals nowadays are searching for new ways to engage with people and to the society which they might can come across with the system, and will help all parties to fulfill their goal just because of fulfilling this market gap by on simple system. Individuals, Leo Members and Clubs will have their own profile, which can be viewed by other person so this will make a proper platform for socializing and contacting others too. This summer project is an attempt to make a computerized system to manage one of the most integral part of our social system i.e., Events and to make it more accessible to every people. This project has enabled to study a unit of organization, analyze the problem and create a software application as a solution to the problems.

1.2 Introduction of the organization

Leo district council 325 J, is a sister organization of the massive International non-profitable nongovernmental organization called Lions Club International. Lions Club has a long history of good reputation since establishment in 1931 by Melvin johns. Leo district council is an organization working on behalf of Lions Club International for designated district separated by the LCI itself. 325 J is a code for Nepal’s territory set by LCI. Therefore, our system has a wide possibility of travelling throughout the country.

Leo district council 325 J is located in Balaju, Kathmandu. Where they handle the entire Leo club included in their region. Their main motto for 2022 was “Roar for more” and for 2023, it will be “Brave Enough to Start”. All Leo club is especially established for the individual aged below 25 so, they are targeted more for young people. They are the integral part of society since they are actively being participating in many social activities without any selfishness and favoritism. They help in uplifting the society by organizing different programs like blood donation, Sanitation Program, Health Awareness Program and whistleblowing the negative aspects of the society. They help youths by bringing events like Leadership, Workshop, Writing, Technical Skill Uplifting Program and many more. With the guidance of their parent organization, which is, Lions club, all the Leo club within that district will organize hundreds and thousands of events yearly. This organization is nonprofit able and every work done by club, club members and volunteer are selflessness and kind act towards their own society.

1.2.1 Mission

To empower Lions clubs, volunteers, and partners to improve health and well-being, strengthen communities, and support those in need through humanitarian services and grants that impact lives globally, and encourage peace and international understanding.

1.2.2 Vision

To be the global leader in community and humanitarian service.

1.2.3 Objective

- To create and foster a spirit of understanding among the peoples of the world.
- To promote the principles of good government and good citizenship.
- To take an active interest in the civic, cultural, social, and moral welfare of the community.
- To unite the clubs in the bonds of friendship, good fellowship, and mutual understanding.
- To encourage service minded people to serve their community without personal financial reward, and to encourage efficiency and promote high ethical standards in commerce, industry, professions, public works, and private endeavors.

1.3 Current situation of the Organization

The Organization is being continuously organizing several events and benefitting youths. Management of those events has been manually in paper and marketing part is done using social media since establishment.

1.3.1 Service Provided

Leo district council 325 J has a motto of "Roar for More" which means they are bringing out many leadership programs free in public. The service provided by Leo Clubs are always free and an act of selflessness.

1.3.2 Organization Process

Every organization has their own structure, in this organization, there is a head office that manages 100s of Leo club of one designated district, every district has different regions led by regional president and every region has few clubs, which has their own club president and other member as head of some department or just a member. Each club contain at least 20 members. The information flows in both directions, from District council to members of the club or from any club to the district council.

1.3.3 Targeted Users

Clubs targeted user for events they organized are generally their own club members, member of other clubs, Individual who are not linked to any club but wants to go to the events organized by Leo Clubs.

Here, District council is the main admin user, which controls the system access for all the Leo club of their district. Then those Leo club enlisted in the system can add, modify and see events through

club president. Other Leo members or non-Leo individuals can view events details and reviews and can add up to Wish list of their own. Users can also visit other user's details for better networking.

1.4 Problem Definition

Leo district council 325 J have been managing all their events in papers and marketing part is done through social Medias like Instagram, Facebook and all. As we, all know social Medias are very general purposed platform that fulfills every aspect of people's life. Which has been a disadvantage for the organizations like Leo Club because their banner and new events updates have got lost in the massive pool of those platforms will not be notified to the designated people. This will be a big loss for both parties; Clubs organizing the events and Individuals who want to go to the event but do not know where and when it is happening. Current Situation of the organization and the whole ecosystem is listed down in points:

- Events are handled in paper with which they cannot track how many are coming to the event and cannot forecast the venue properly. In addition, marketed through general purposed social media platform.
- Individuals who are already connected can only see where and when the events are happening.
- No specific recommendation system to attract the new members.
- No systematic feedback system from the people who have attended events organized by the club.
- No proper digitized system to connect everyone linked with the ecosystem.

1.5 Issues/Problems of the report:

This report covers only some of the problems in services given by the organization based on some limited aspects and problems. The issues or problems are as follows:

- Since the summer project should be done with other academic subjects, sufficient time cannot be given to the report writing which pitfalls on the details of the documentation.
- As the TU curriculum purposed the system must be attached to one organization and solve their problem, so, the possibility of the system serving a wide range of organization as client, and actual possibility of forming an organization with the same idea is limited.
- Recommendation of report guideline from T.U suggest to make the report simple, so creating System documentation, User documentation, product documentation could not be included despite of time limitation as well.
- Data collection methods are used but due to small demography for data collection, the collected data and the result outputted might not be correct.
- Report writing and Documentation building at this level is new to us so we might fall short on many things while doing by learning at the same time. Therefore, there might be blunder or negligible mistakes in the report or in the system architecture.

1.6 Objective of the report

The objectives of the study can be studied under two sub headings:

1.6.1 General Objectives

The general objectives of this project are to partial fulfillment of the requirements for the degree of BIM (Bachelor in information management) program as well as to enable students to study an

organization or a unit of any organization, analyze the working process, figure out the existing problem and present a suitable solution in the form of a system or software.

1.6.2 Specific objective

- To help Leo's Event Organizers to Tackle Market Part by giving a good and segregated marketplace.
- To help people to be notified about Leo's happenings around them and see the reviews of other people about those events.
- To connect every person and member who are linked with any Leo club of that district in one place.

1.7 Methodology/Procedure adopted for writing the report

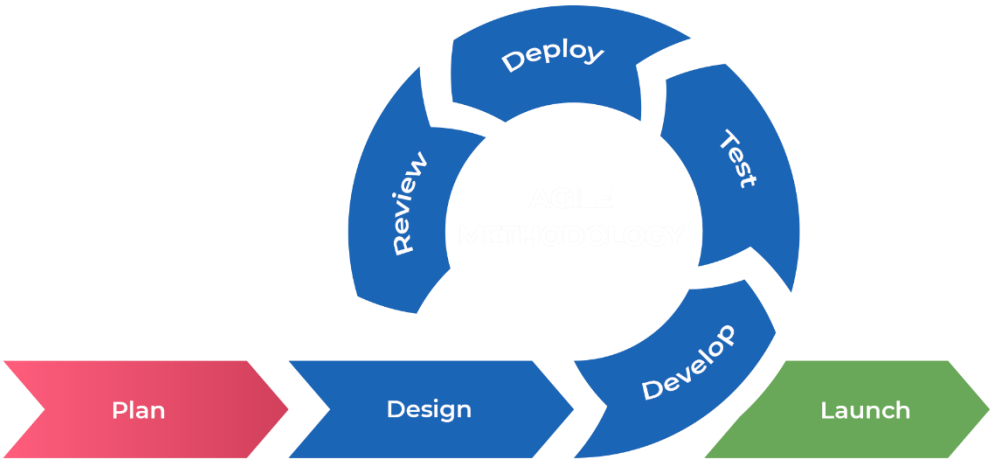

Figure 1. 1 Agile Development Process

Agile methodology is an iterative and flexible approach to project management and software development. It emphasizes adaptability, collaboration, and continuous improvement throughout the project lifecycle. The Agile methodology is designed to address the challenges of traditional, linear project management approaches by promoting a more incremental and responsive process. Agile methodology is used to develop a project where frequent questions are asked and update system as feedback. Further detailed procedure adopted for writing the report can be analyzed under following subsections.

1.7.1 Project framework

A **Kanban board** is an agile project management tool designed to help visualize work, limit work-in progress, and maximize efficiency (or flow). It can help both agile and teams establish order in their daily work. Kanban boards use cards, columns, and continuous improvement to help technology and service teams commit to the right amount of work, and get it done. Kanban board is

updated every day after a set of work is completed and has included every key step taken while building this project and report.

- An interview was prepared to know the way of recording the detailed information about how the Leo club run their events from admin's side. To understand in deep about how the organization runs its daily task, their information system and the hierarchy of supervision.
- Requirements are gathered and noted on the paper. And later added to Kanban board
- The information collected from interview was analyzed and UML diagrams are made. Conclusion were drawn from the analysis of the diagrams.
- Based on the requirements, Ui/Ux designing, Dataflow designing and architectural designing is done for the system.
- Development of the system app in flutter framework of dart and swing of java is done stating processing and completed modules.
- Testing is done with the collaborating of the organization and at the same time review about the module are gathered.

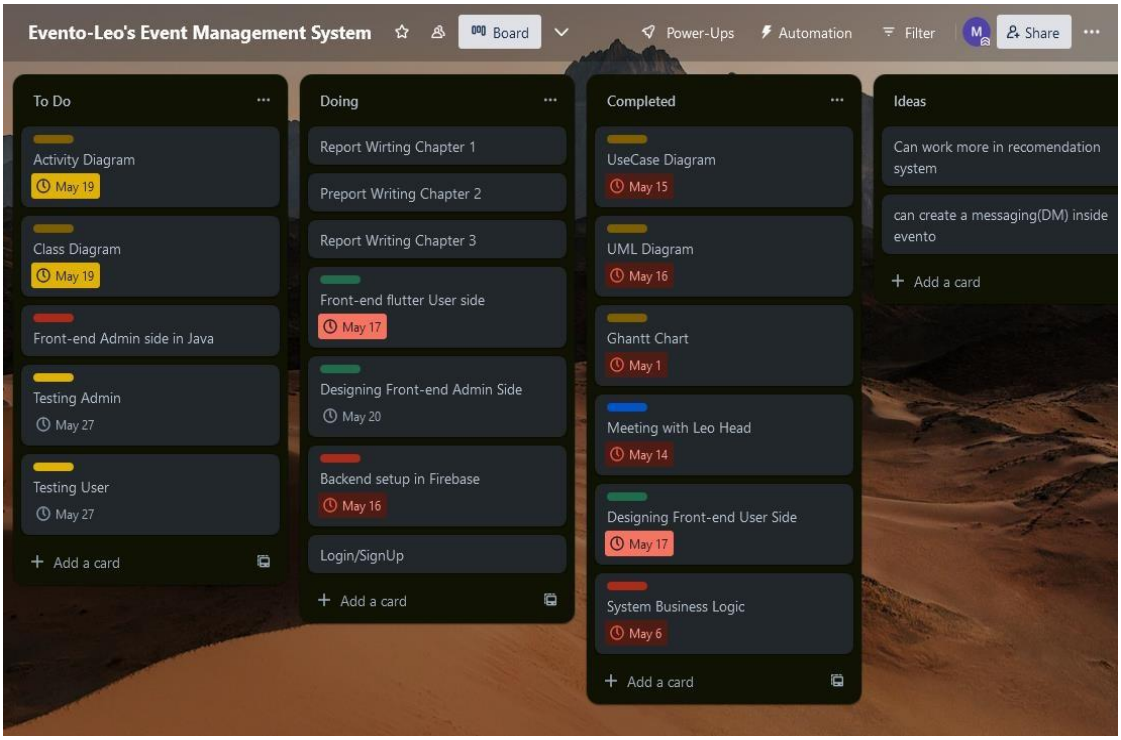

Figure 1. 2 Kanban Board

The entire report is divided into three sections: Introduction, Analysis and Conclusion.

1.7.1.2 Introduction

In this section, the background of the project is given, introduction of the organization is included, what types of tools are used for preparing report as well as software system. The report is prepared by both primary and secondary data.

1.7.1.3. Analysis

Currently existing system is analyzed and new effective system as a solution for the problem is analyzed. The analysis of possible solution is presented in different types of diagrams like Use case, Activity Diagram, Class Diagram, Sequence Diagram etc.

1.7.1.4. Conclusion

It is concluded that instead of following the old manual technique managing events, marketing it and connecting members through general purposed social media, they can use their own specifically designed platform that makes event marketing, managing and connection easy, that I have been developing is much more effective and time efficient.

1.7.2 Data and information

Methods for collecting data are, with either quantitative approach or qualitative approach, for the completion of the project and report these following methods under primary and secondary are used:

1.7.2.1 Primary Data Collection

The primary data generally includes the information about services provided by the organization. These data are collected directly from the source of information without mediator. The source of our data for this project is Leo Club and the Head office of all Leo Clubs of district 325 J. Under Primary data collection, two approaches are classified in the basis of volume and quality of data collected.

1.7.2.1.1 Qualitative Approach

Qualitative approach focuses on the quality and source of the data rather than quantifying mass data and rejects the mathematical calculation. Some methods used to find conclusion of this project are:

Observation Method is used by observing how the workflow is processing in the office of Lion's club. Observing and being solely in the weekly meeting of Lions club of Buddhi Gandaki, some conclusions are drawn out of it.

Personal Interview with Leo. Mr. Kiran Thapa Mainali the district president of Leo district council 325 J to understand more about the organization and all the Leo clubs they are handling.

Telephonic Interviews several times with Leo club President Leo. Mr. Pratap Bajracharya and other member to understand how events are handled in any club and how their weekly task is performed.

Set of **Questionnaires** are prepared with short, simple, and logically sequenced questions and use in interviews. The questionnaires that are asked for the report is included in Pg.45 of this report.

1.7.2.1.2 Quantitative Approach

All statistical tools are not widely used but some basic calculations are done from the output of the survey questionnaire that is set and distributed to club members and other colleagues to know their thoughts about the idea of creating specific platform for events only. The format of survey questionaries' is included in Pg. 45 of this report.

1.7.2.2 Secondary Data Collection

Secondary data is data collected by someone other than the actual user. For this project secondary source, we rely on collecting data are; official website of Leo district council, asking with friends who is actively or passively involved to the Leo club.

1.7.3 Tools used

- Analysis and Design tools

  For the graphical representation of our project, some of the designing and transforming tool are used such as visual paradigm (for UML diagrams), MS Word (for report) and MS PowerPoint (for presentation), Figma for designing wireframe, design, logo and template build up.

- Implementation
  The requirement analysis and the design of the application and be transformed into implemented form by using various tools. System is built upon:
  - **Language**:
    - Flutter - Dart for mobile application for user side with Pub.dev for dependencies.
    - Swing – Java for Desktop application for admin and cub side.
  - **Database**:
    - Firebase's Authentication for Login/Sign Up authentication.
    - Firebase's Fire store for storing user's and events data.
  - **Version Management**: Git and GitHub.
  - **IDE and Development tools**: Visual Studio Code and Android Studio.

1.7.4 Technique of project report analysis

Analyzing a project report involves various techniques to examine its content, evaluate its effectiveness, and draw meaningful insights. Here are some techniques commonly used for project report analysis:

Content Review: thorough review of the project report's structure, organization is conducted

Objective Evaluation: Whether the project report successfully achieves its stated objectives is evaluated. Assess if the report addresses the research questions, goals, or objectives effectively with the Leo Clubs and ultimately to the district council.

Data Analysis: Project report includes quantitative or qualitative data, and applied appropriate analysis techniques. This may involve statistical analysis, data visualization, thematic analysis, or other methods to gain insights from the data presented.

Comparison and Benchmarking: I have compared the project report's findings, results, or performance against established benchmarks, industry standards, or similar projects. Assess the project's performance in relation to other college's project reports strengths and areas for improvement.

Stakeholder Analysis: Assess how the project report considers the perspectives, needs, and concerns of relevant stakeholders (all those who are linked with Leo Clubs). Evaluate if stakeholder engagement and communication strategies are effective and inclusive.

Financial Analysis: If the financial aspects of the project report, including cost estimates, budget allocation and ROI is invested. Since the organization is non-profitable and the project is done for academic requirement so no financial aspect is included.

Impact Assessment: Analyzed the potential social, environmental, and economic impacts of the project. It has a positive impact to every aspect of the society. Evaluate if the project report adequately assesses the project's potential positive and negative effects and proposes appropriate mitigation measures.

Critical Review: Critical thinking to question the assumptions, methodologies, and evidence presented in the project report are evaluated.

CHAPTER II: TASK AND ACTIVITIES PERFORMED

2.1 Literature Review

We have studied several papers based on event management system. First paper, which we have studied, is named as “Barcode Enabled Event Management System for Logistics and Consumables Management” which was published by Aswin Chandrasekharan; this paper authentication is provided by barcode. Barcode used to ensure smooth and quick registration. It is faster and efficient as well as it is secure. The outcome of this is quick and secured registration.

2.2 Analysis of Task and Activities

Many tasks and activities had performed which had helped to fulfil the main objective of our project. Major objectives of the project were to get the information about the use of technology in one the organization in the country. Some of the tasks that is performed is given below:

2.2.1 Organization Selection

Selection of an organization is an important decision for the project, as the type of organization dictates the majority of the requirement for a system. After a long search of the market gap and a problem in any organization. I found a non-profitable organization Leo. Which I was active member for 4 months and became passive afterwards. Event management on that club was a hectic job, especially for marketing part.

2.2.2 Getting the Information about the Organization

After the selection of the organization, the other task was to gather relevant information about the Clubs. The main techniques that were used for this purpose was direct observation of the procedures carried out by each of the members of the organization. Further information was collected through the direct interviewing with the President of Leo District Council and other members of head office as well as the club members with relevant questions.

2.3 Analysis of Problem

The organization is facing certain problems. The main problem of this organization is that there is no any digitized system managing events and a common platform for connecting all the members. The organization's all clubs use pen and paper to track down the events participants, uses general purposed social media apps for marketing and there was no proper feedback system.

2.4 Analysis of Possible Solutions

The most important solution for the analyzed problem could be a specific platform that brings event organizing clubs of Leo and those enthusiasts of the events to one place with a good recommendation system. The organization does not have to pay much attention to track down the participation number and have eliminated the tension of not getting much crowd as estimated. This system even has the commenting system from the participants, which will become a valuable asset for the organizers. The system also brings out all the people of Leo or non-Leo member in one place with a good profile, which will become a common place to know people.

2.5 Feasibility Analysis

A feasibility study is an analysis of how successfully a project can be completed, accounting for factors that affect it such as economic, technological, legal and scheduling factors. It shows how the

business is associated with the business strategy. The categories within the feasibility study that need to be discussed are technical, economical and operational feasibility.

2.5.1 Technical Feasibility

The technical issue usually rises during the feasibility stage of the investigation. Event Management System manages was done on Paper and marketing from social media. So transiting might be resisting. The current system develop is technically feasible. Therefore, cost of maintenance will reduce. It provides an easy access to the users and it provides the technical guarantee of accuracy and 10 reliabilities. As all the hardware and software tools required for implementation of the system is under the budget of the organization. The software and hardware requirements for the development of this project are not many and are already available as free as open source. In addition, software can be easily upgraded to accomplish specific user requirements. The programming language and database are open source. The system is based on a real-time database that provides real-time updates to the information change in the database. They all are easily available to the public.

This system allows for the feasible work operation of the events within Leo Clubs, where the data may change constantly and assures for the availability of real-time updated data. Hence, technically there is no limitation for the development of the software.

2.5.2 Operational Feasibility

As the software was developed to solve the problem of the organization according to the requirements and the organization is also satisfying with the solution suggested. Therefore, they are ready to operate software once it is developed and operative once it is installed. It is easier to use and there is no need of skilled labor to use this system. That will meet the organization's operating requirement. This system will provide all the information to customer without having any direct contact to organization.

This requirement-based system would ensure the optimal utilization of organizational resources and would also help in the elimination of redundant operations and improve upon organizational performance. The system is extremely flexible since it provides large number of validations on all the entered and avoid error in the calculation

2.5.3 Economic Feasibility

The organization has evaluated the cost of software and hardware required for the system including storage of data. Once the software is installed and operated, it will definitely save time of the organization and it does not need additional hardware or software. This would insure nominal expenditure for the organization. Also, since the software is easy to use and do not need skilled labor to use it. The benefits expected from the system are studied to access the cost due to new system.

2.5.4 Behavioral Feasibility

Behavioral Feasibility evaluates and estimates the user attitude or behavior towards the development of new system. It helps in determining if the system requires special effort to educate, retrain, transfer, and changes in employee's job status on new ways of conducting business. For this test, the organizational observation is done and tested out right. Where everyone is behaviorally fit for using this upcoming system and will bring positive impact in the workplace.

2.5.5 Legal Feasibility

Legal Feasibility is tested out by questionaries to the users and club member and found out the organization has never been active in illegal activities like fraud, money laundering or bribery. In fact, organization is a non-profitable organization so it works for social welfare.

2.6 Requirement Analysis

Requirement analysis focuses on the tasks that determine the needs or conditions to meet the new or altered product or project, taking account of the possibly conflicting requirement of the various stakeholders, analyzing, documenting, validating and managing software or system requirements. The requirements can be classified as functional and non-functional requirements.

2.6.1 Functional Requirement

Functional Requirement are the state of services the system should provide how the system should react to the particular input and how the system should behave in particular situation. A typical functional requirement will contain a unique name and number, a brief summary, and a rational. This information is used to help the reader understanding why the requirement is needed, and to track the requirement through the development of the system.
Some of the functional requirements of "Evento: Leo’s event management system" includes:

- Admin can add give access to Club to the system
- Club can add and modify Events.
- Club can track the participants of the events
- Club can see feedback of the events
- Users are suggested with events that they can like.
- Users can search the events of their choice
- User can Wish list the event that they want to go.
- User can comment their experience in the events.
- User can view detailed information of Events and other Users or Clubs.
- Admin has control to modify, delete events, users, and clubs.

2.6.1.1 Use-Case Diagram

Use-case Diagram is the interaction between system and actors. In the given use-case diagram it shows the interaction between Event Management System and actors i.e., Admin and Customer. Use-case diagram shows which actors can perform which functions of the system and the relationship between them as well.

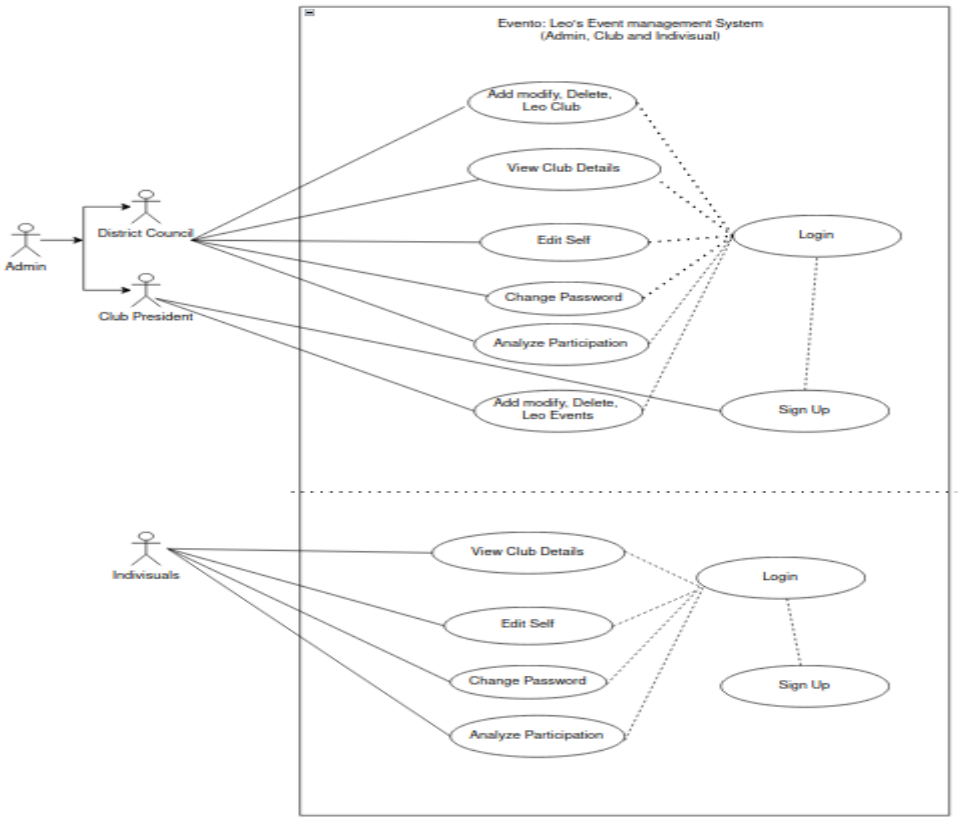

Figure 2. 1 Use Case Diagram

2.6.2 Non-Functional Requirement

A non-functional requirement is a requirement that specifies criteria that can be used to judge the operation of a system rather than specific behaviors. It defines system property and constraints. It is contrasted with functional requirements that define specific behavior or functions. The plan for implementing non-functional requirements is detailed in the system architecture, as they are usually architecturally significant requirements.

The non-functional requirements Event Management System are as follows:

- **Reliability and Compatibility**

The system can operate reliably while performing CRUD operations and other functionality. The system is compatible with all the web browsers.

- **Usability**

The system is easy to operate and understand. It has an intuitive and responsive design.

- **Performance**

The system can maintain the security of user credentials and data. There is no lag while performing different operations.

2.7 System Design

System design is the process of defining the elements of a system such as the architecture, modules, and components, the different interfaces of those components, and the data that goes through that system. It is meant to satisfy a business or organization's specific needs and requirements through the engineering of a coherent and well-running system. One of the main components of software design is the software requirement analysis. In this project, there is one database used to store the information of a customer who has registered their account in the system.

2.7.2 Activity Diagram

An activity diagram visually presents a series of actions or flow of control in a system similar to a flowchart or a data flow diagram. Activity diagrams are often used in business process modeling. They can also describe the steps in a use case diagram. The activities model can be sequential and concurrent.

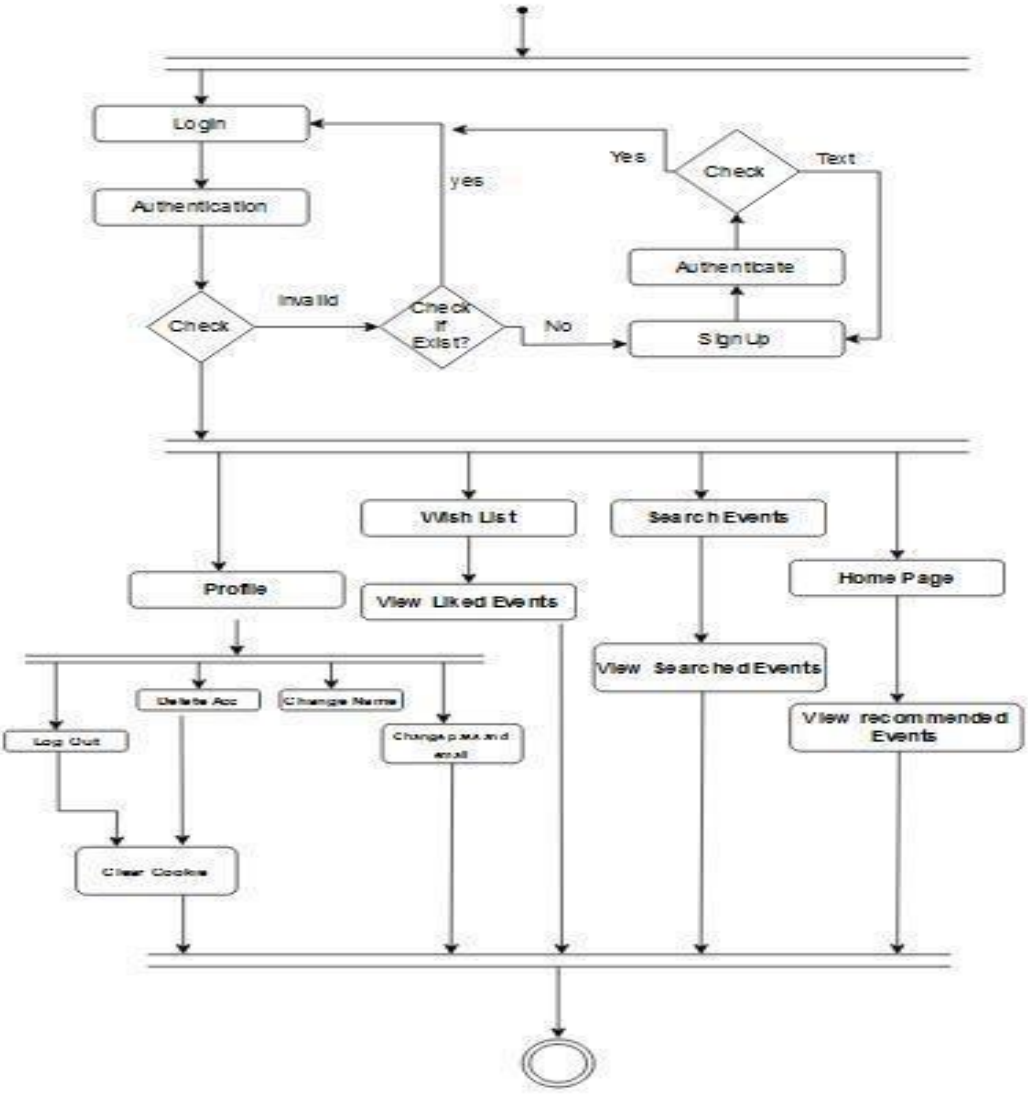

Figure 2. 2 Activity Diagram

2.7.3 Sequence Diagram

UML Sequence Diagrams are interaction diagram that detail how operations are carried out. They capture the interaction between objects in the contest of a collaboration. Sequence diagrams are time focus and they show the events of the interaction visually by sing the vertical axis of the diagram to represent time what messages are sent and when.

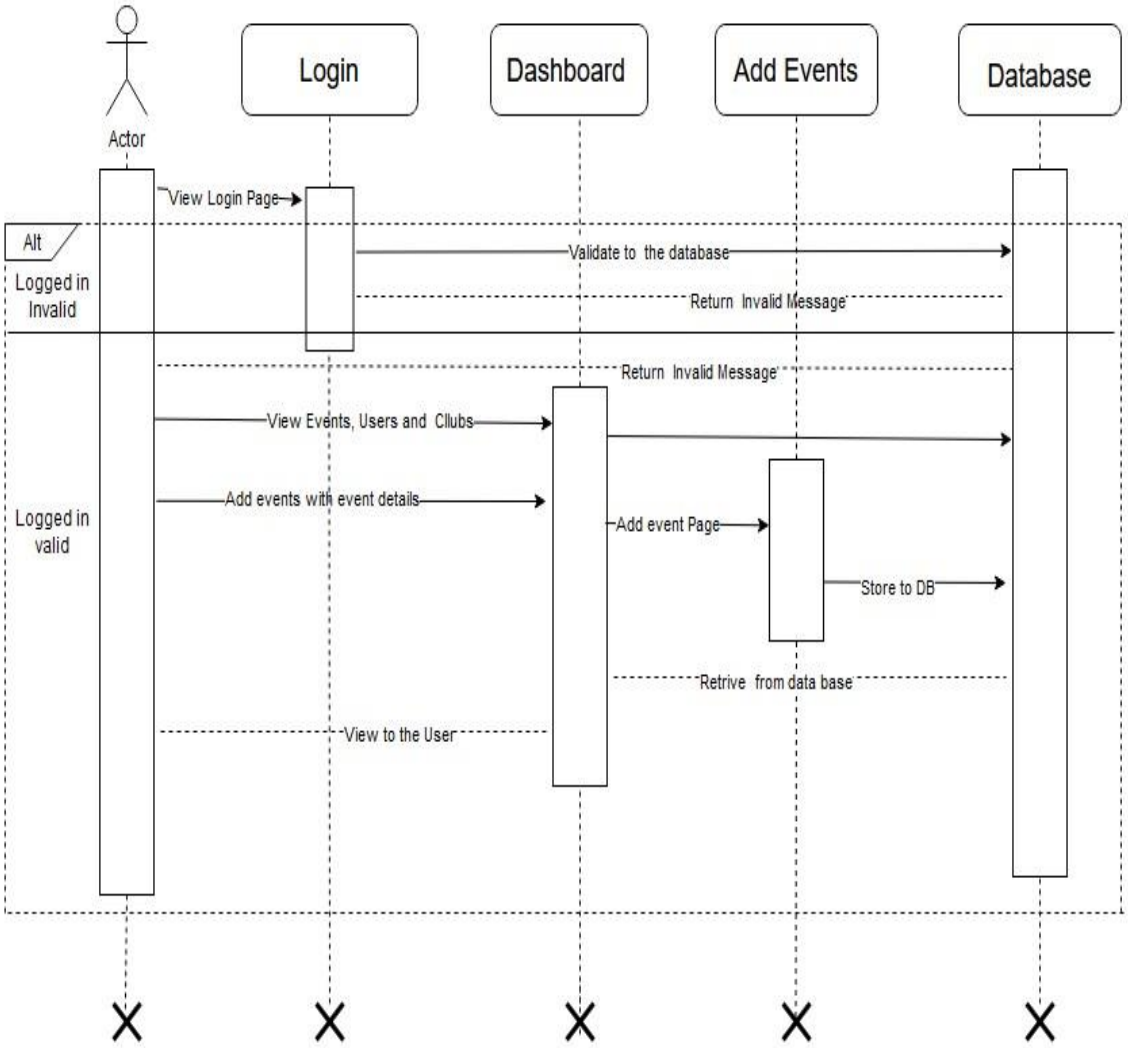

Figure 2. 3 Sequence Diagram

2.7.4 NoSQL Data Modeling Diagram

NoSQL, unlike SQL, which has ER and class diagrams, has neither names nor constraints for data modeling diagrams. The obvious reason is the relaxed rules of NoSQL about relationships, which aim to get a developer started with minimum requirements. The data modeling diagram is the blueprint of any application we should always draw one.

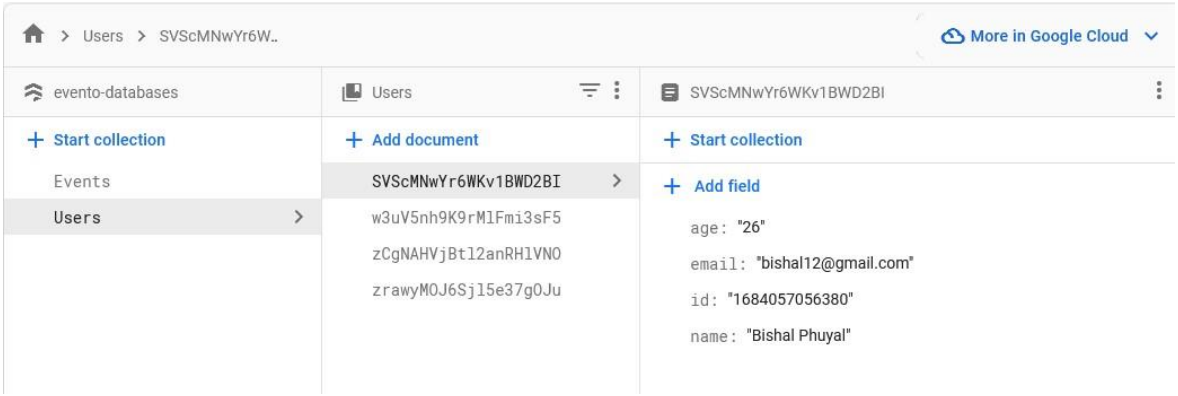

Figure 2. 4 NoSQL Data Modeling Diagram for Users

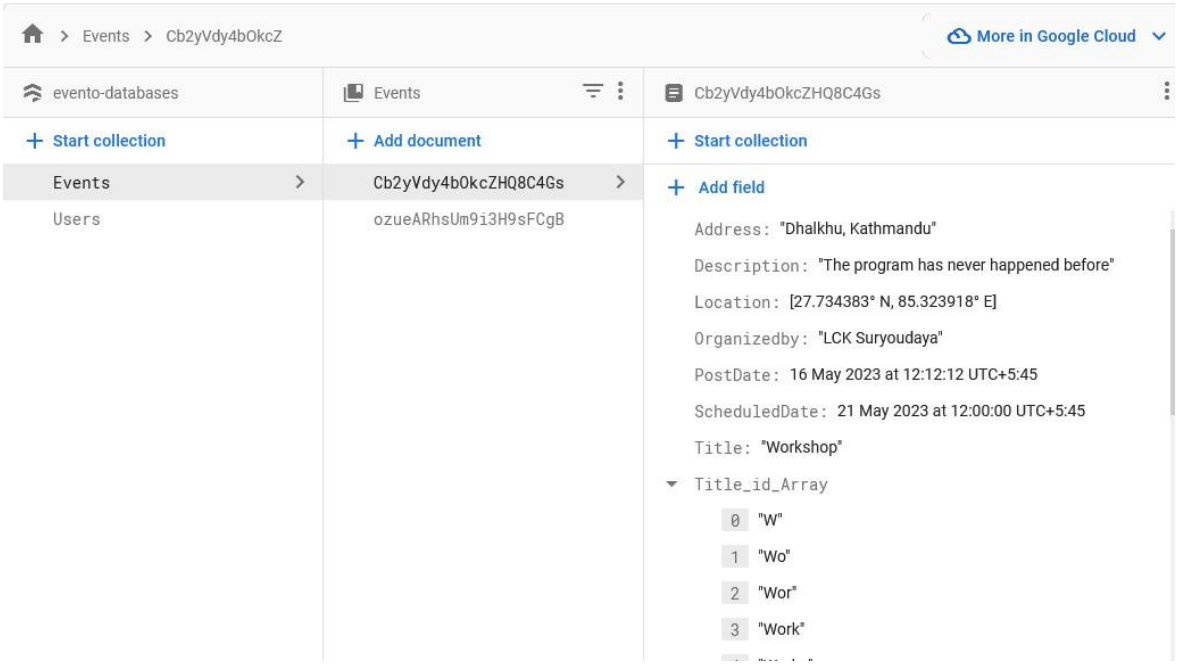

Figure 2. 5 NoSQL Data Modeling Diagram for Events

2.7.5 Data Flow Diagram

A data flow diagram is a visualization tool used to illustrate the flow of processes in a company or a specific project within it. It highlights the movement of information as well as the sequence of steps or events required to complete a work task.

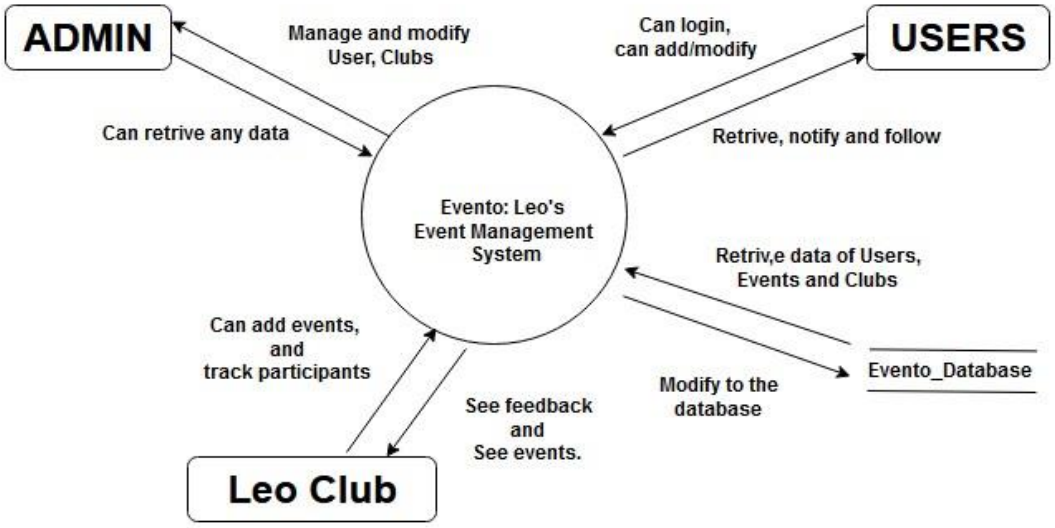

Figure 2. 6 DFD Level 0

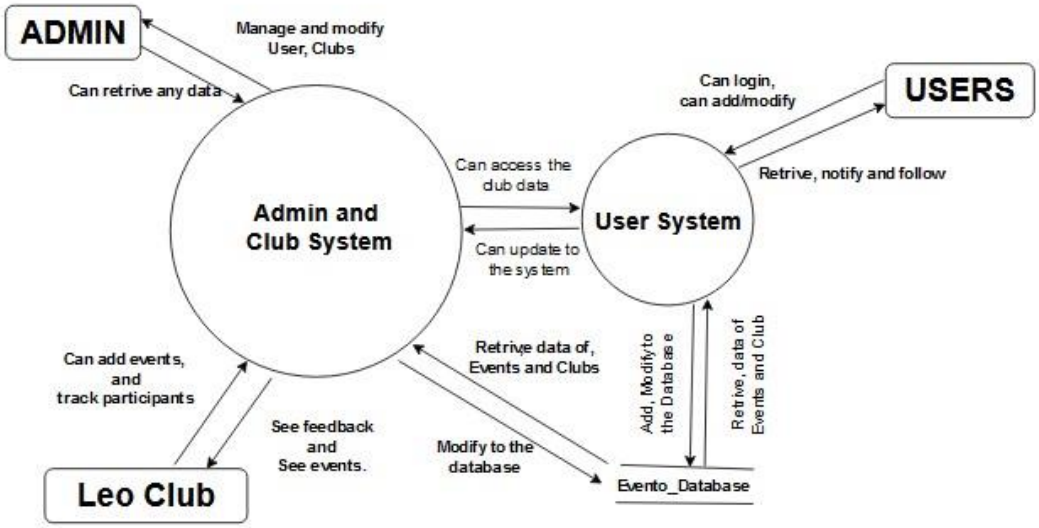

Figure 2. 7 DFD Level 1

2.8 System Implementation

In this part, it actually constructing a new system from the scratch with the help of the system design. This part will look at the implementation of the system including the database and the

main application. It including coding, testing and integrate system to meet its requirements. The section highlights the main feature if the system and they were implemented.

2.8.1 Module Description

Modules Description shows the different page of the system and following are different module of these system.

2.8.1.1 Login Page

Customer should before register their account into the system to login into the system. When they submit the login form with valid username and password the session will be created with the username. Validation will be performed by checking if the username and

password occurred together. If they match with the data into the database then the user would be directed to the internal pages. If the username and password does not match, then the user will be directed to the login form with error message.

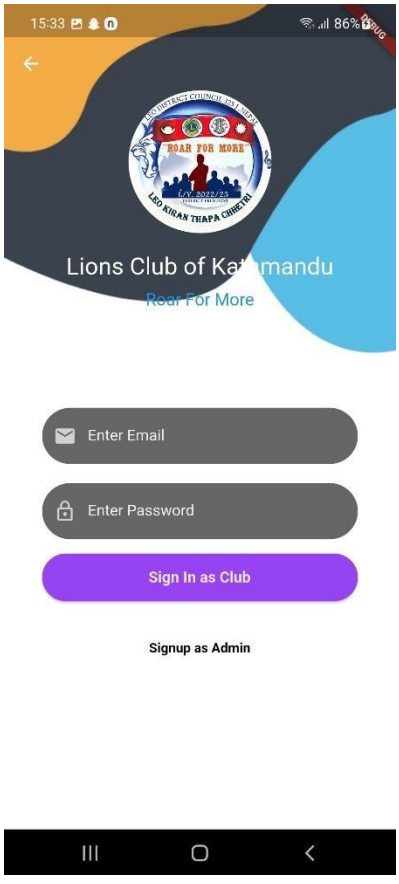

Figure 2. 8 Screenshots for Log in Page

2.8.1.2 Signup Page –Clubs and Mobile Application for Users

In this signup screen, customer can create their login account by providing all the details information required in the form. All the information provided by the user will validate by the system and if entered information beyond the required information then system will show the error message immediately. When they submit their information, all the information will be inserted into the database.

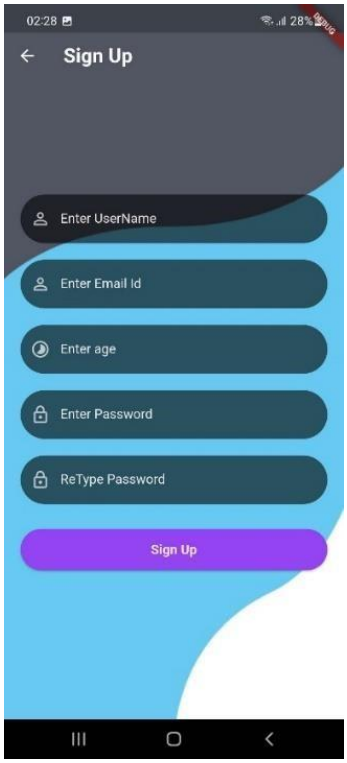

Figure 2. 9 Screenshots for Signup Page

2.8.1.3 Home Page – Mobile Application for Users

Figure 2. 10 Screenshots for Homepage of Users, Club and Admin

2.8.1.4 Search Page – Mobile Application for Users

Figure 2. 11 Screenshots for Search Page for Users, Club and Admin

2.8.1.5 Profile Page - User

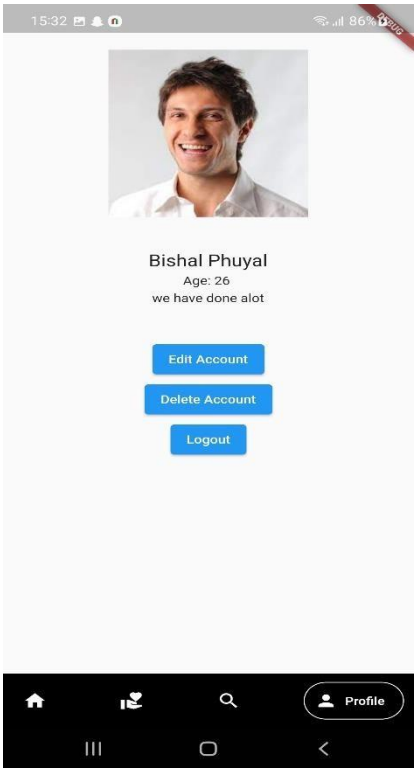

Figure 2. 12 Profile Page of Users

2.8.1.6 Profile Page or Clubs List Page

Figure 2. 13 Club List Page from Admin

2.8.1.7 Liked/ Volunteer Event Page from User

Figure 2. 14 Liked Event Page from User

2.8.2 Tools used

- **Flutter (Dart) –** Used for Android Application Development. Flutter is an open-source UI software development kit created by Google. It is used to develop cross-platform applications for Android, iOS, Linux, macOS, Windows, Google Fuchsia, and the web from a single codebase
- **Swing (Java) –** Used for Desktop application Development. Swing is a lightweight GUI toolkit, which has a wide variety of widgets for building optimized window-based applications.
- **Firebase -** Firebase is a set of backend cloud computing services and application development platforms provided by Google. It hosts databases, services, authentication, and integration for a variety of applications.
- **Web Browser:** Firefox browser is used to the run the project and to research.
- **VS code 1.7.6 –** Used to write down all code for flutter is a source-code editor made by Microsoft with the Electron Framework, for Windows, Linux and macOS.
- **Android Studio –** Used to create Android Development environment.

2.9 System Testing

System testing is a level of software testing where a complete and integrated software is tested. The purpose of this test is to evaluate the system's compliance with the specified requirements. System testing look after the testing of the system that has been developed to ensure it has meet it specified requirements. As a flexible methodology was adopted for the development, the testing of the application started during its development with bugs being fixed as they were discovered. After each section of the application was completed, it was tested so that errors could be corrected.

2.9.1 Unit Testing

Unit testing was undertaken during the actual implementation of the system. Each time some code was written it was run and monitored for the bug. As bugs were discovered they were corrected by adding code or modifying the existing code. Several bugs were corrected by analyzing the error messages and correcting them by chaining in code. After development of the system has been completed, testing was also performed. Functionality testing and interface testing combined to ensure the system functionality as requirement.

2.9.1.1 Test Case

Title: Evento: Leo's Event Management System.

Description: The system should be able to have the characteristics of Login functionality.
Precondition: The system's database has email=" email@gmail.com" and password="pass123"
Assumption: The login U/I has text field to enter email and password.

Test Steps:

a) Open login file

b) Enter email and password

c) Press Login button

Expected Result: The entered username and password must validate with database's username and password and after validation success, it is expected to locate for homepage.

Post Condition: System should able to store the activity done by the user after he/she successfully login into the system.

Table 2. 1 Test Case for user Login

Test Case	Test Scenario	Test Data	Expected Result	Status
1	Check response when invalid email and password is entered.	Email = email@gmail.com Password= password	Message Display "Either email;=l or password is incorrect"	Pass
2	Check response with blank email and blank password is submitted	email= Password=	Message display "email and Password cannot be blank"	Pass
3	Check response when correct email and incorrect password is entered	email= abc@gmail.com Password= pass	Message Display "Either email or password is incorrect"	Pass
4	Check Response when incorrect email and correct password is entered	email= email123 Password= pass123	Message Display "Either username or password is incorrect"	Pass
5	Check response when valid email and password is entered.	Username = email@123 Password = pass123	Redirect to User Dashboard Panel	Pass

2.9.2 Validation Testing

In this requirement established as part of software requirements analysis are validated against the software that has been constructed. Validation testing provides final assurance that software meets all functional, behavioral and performance requirement. Validation can be defined in many ways, but a simple definition is that validation succeeds when software functions in a manner which it intends to achieve.

2.10 Findings

Through the completion of this project various different information could be found out. This has also helped in understanding the problems faced by this type of organization and their possible solutions. Findings for this project can be subdivided into followings:

- **Requirements Analysis Findings**: While analyzing requirement I have brought some findings that there is a huge market gap when it comes to the specific platform for events.
- **Design and Architecture Findings**: The system follows the clean architecture, which is used in Flutter and effective for proper system development.
- **Development Process Findings**: During development of the system, limited knowledge about flutter dart and architectural design has affected the pace of development. Agile methodology is used as time-to-time review is be done every week and to be updated with the tasks Kanban board is used.
- **User Feedback and Usability Findings**: User is yet to access the completed system.
- **Deployment and Implementation Findings**: During development and implementation, I have found out the importance of version control and containerize along with the power of knowing command line properly.

CHAPTER III: DISCUSSION AND CONCLUSION

3.1 Discussion

The main goal of this project was to design Mobile application for Event Enthusiast Individuals and a Desktop based application for Leo Clubs and District Council to manage events. Being through the different difficulties an overcoming those difficulties with the help from different sources this project has been successfully completed. Great effort and time were spent on completing the project as per the requirement specified by the organization. Despite the challenges and problems, the project was completed in specified duration. The owner of the organization and other people who are indirectly involved in this project tested the system.

3.2 Conclusion

I have learned a lot about report writing, mobile app development in flutter and desktop application in Java. During this project, I have done best to make my project as good as possible. I have gone through many websites, books and consulted with the teacher. I have tried to apply every suggestion given by mentors and teachers as well as my fellow mates. I have made the system and project report as compatible to the real-world work. This will help me link my academic knowledge to the real-world scenario. I was exposed to professional working scenario where time management was the most.

This project is vast and complex to complete in this short time so the managerial skill is required in a vast amount, which I have developed and realized in the process. I realized this project has huge benefits for my career path. Some of the advantages are:

- It increases my report writing skill.
- It increases my designing skill.
- It helped to understand how tasks are performed in real working environment.
- It helped to worked as team member and time sensibility in job.
- It helped me know more about the Leo is working environment.

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APPENDICES

Appendix 1: Interview Questionnaire

1. What is the main objective of the Organization?
2. How often Leo Club organize events?
3. What kind of events does club organizes?
4. What are the benefits those events bring to the society and an individual level?
5. What is the existing system to market about the events?
6. Do you find it effective enough?
7. Do you track about how many people might visit and for how many people the venue should be organized?
8. Is it the scientific approach?
9. In a normal event what is the estimated amount of people that appears?
10. How many are from the event and how many from outside?
11. Do you keep track of their feedback and their experiences?
12. Do you really feel there should be an application that brings all the events organized by every Leo Club within that district in one platform?

Appendix 2: Survey Questionnaire

Table 4. 1 Survey Questionnaire Method Table

Questionnaire

About Leo's Events Happening around

Introduction:

Events have been an Integral part of life for millennials now. Likewise, Leo have been organizing different sort of leadership and voluntary events for so long. Many People visit events organized by several Leo club around Kathmandu, many ignores and a lot won't get aware of events. Though there are a lot of People wanting to go but won't get updated. So, these are few humble questions to get to know about this problem.

Name: Age: Education: Gender: M | F

S. N	Questions	Extremely	Moderately	Not at all
1	How often you attend any event/conferences?			
2	Do you follow up event's organized by Leo club?			
3	How often you use social media to get aware about these events? Are they informative enough?			
4	Have you felt like you have missed any events/conference/meetups just because			
5	Do you wish there should be some designated platform where one can see the reviews and experiences of the event you are deciding to go?			