

**OKASYON: A MOBILE-BASED EVENT  
PRODUCTS AND SERVICES  
MANAGEMENT SYSTEM**

A Research/Capstone Project  
Presented to the Faculty of the  
College of Computer of Studies, University of Cebu

In Partial Fulfillment of the Requirements  
For the Degree Bachelor of Science in Information Technology

By  
Abellanosa, Mikhayl Joshua C.

Colina, Marc Lennard S.

Bongo, Mikhaelo Nheal

Abanto, Japhet Titus

**Mr. Eric P. Ortega**

Adviser

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## **ABSTRACT**

In an era where convenience and comfort have been the key drivers of innovation, where at a few presses of a button, we can get food delivered right at our doorstep, and with a few more presses we can have a car to take us to our destination, mobile apps have been the go-to software of people across all ages. As the primary innovators and forwarders of technology, the proponents have the moral obligation to identify problems in society and seek IT solutions to these problems. This paper addresses the problems of Event organizers in the organization of events, search for event products/services, and as well as the Suppliers of these products/services to further promote their businesses, providing them a platform exclusively for them to aid them in reaching a far wider market. This project acts as a third party platform to provide convenience to both event organizers and suppliers and at the same time taking advantage of the huge market opportunity that the Events industry has to offer. This project also allows event organizers to create events and opt to promote it in the app and fish for possible sponsors and attendees. Through this, the event organizers will be given a rough draft of how many people are interested in their events. The project also aims to provide a personalized experience to its users through Term Frequency- Inverse Document Frequency. Ratings and Reviews given for the mere purpose of criticizing and bringing the suppliers down may also be prevented because a client or event organizer may only be able to rate a store if they have performed at least 1 transaction with them.

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Last, but certainly and never the least, to our Almighty God for bestowing upon us these talents and skills that we used in completing this project and for guiding and helping us all the way until the end.

## **DEDICATION**

We dedicate this project to our parents for their unending support and to the faculty friends and family who have helped us along the way. These people have inspired us and their prayers, encouragement, and guidance have led us to the completion of this project. Lastly, we dedicate this work to our God Almighty who blessed us as we were working on this project.

## APPROVAL SHEET

This Research/Capstone Project Study titled **OKASYON: A MOBILE-BASED EVENT PRODUCTS AND SERVICES MANAGEMENT SYSTEM** prepared and submitted by Japhet Titus Abanto, Mikhayl Joshua C. Abellanosa, Mikhaelo Nheal Bongo, Marc Lennard S. Colina has been examined and is recommended for approval and acceptance.

RECOMMENDED:

**Eric P. Ortega**

Adviser

**Eric P. Ortega**

IT Research Coordinator

---

APPROVED by the Examining Tribunal on ***Proposal Hearing*** with a group verdict of \_\_\_\_\_ on \_\_\_\_\_.

**Moma D. Ortega, MCS**

Chairman

**Janeth S. Ugang**

Member

**Earl Edsel Paray**

Member

**Miriam Flores, MA-Lit**

Censor

---

ACCEPTED and APPROVED in partial fulfillment of the requirements in Bachelor of Science in Information Technology.

**Moma D. Ortega, MCS**

Dean, UC- CCS

Date: \_\_\_\_\_

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## **CHAPTER I**

### **INTRODUCTION**

The world has changed so much since then because of technology. Technology transformed and shaped the world into what it is today and the pursuit of technological advancements for a better and more comfortable life have been the mantra of today's digital era. In the urge to help make society a better and more comfortable place and as the primary innovators and forwarders of technology, the researchers have the moral obligation to seek various problems in society and provide I.T solutions to these pressing issues. In a world where in a click of a button you can get food delivered right at your doorstep and with a few more clicks you can get a car to bring you wherever you want to go, this study's aim is to help people especially those event organizers and those in need of event products services to be able to get the best deals at the click of a button. It would be helpful to provide them with a wide array of choices so that they can compare which product/service provider best fits within their preferences. This study also addresses the issue of promoting an event to a wider array of people and the difficulty of looking for sponsors for these are the lifeblood of a successful event or occasion. With the proposed application, it won't just help the event organizers or the users but those event product/service providers as well because they are provided with a platform where in a few clicks, their products/services can already have a national and even better- a global market.

#### **Rationale of the Study**

Event organizing is not as easy as it seems. There are a lot of things to consider and the way an event organizer handles aspects like budget, venue, resources, audience/attendees, and sponsors can make or break an event organizer. By event organizers, this does not only mean those people who organize huge events like Hyper Cebu, concerts, or what not, but even those parents preparing for their son's 1<sup>st</sup> birthday party are included. Both large and small-scale event organizers alike have their personal struggles when it comes to event organizing.

According to an Event Manager Blog – Bizzabo, as of 2016, in the United States, different event planners spend a total of 90% of their budget on event products/services like the venue, catering services, marketing, and speakers. Based on another survey by Frost and Sullivan (2014), events in the US that use B2B – an offline marketing channel where real-life experiences are leveraged to facilitate in-person interactions, spend \$512 billion annually. Analyzing these statistics, it is clear that huge amounts of money are spent especially in marketing and choosing the right resources for the event to be successful.

In a survey conducted by the researchers (2018), 60% found it difficult to find products/services for their events, 90% said that their choices are limited when choosing event products/services, 40% found it very difficult and 40% found it difficult to find sponsorships for the events they are conducting, 70% found it hard to promote their events to a wide array of people, and 90% of them are very interested in the application which is the output of this study.

Also, in organizing events, like in student body organizations in schools and universities particularly in Cebu City, the students have limited choices in terms of the event essentials like venues, sound systems, catering services, and the like. Sometimes, they are only aware of 1 or 2 catering services that are expensive and not worth the money they're spending but little did they know that there were cheaper catering services just around the corner. Also, sometimes, the people know of no one who provides these services and if they find one, for sure they have not yet experienced their quality of service so they'd have to try their service before they could really conclude if their service is good or not. And if not, it would be too late since the event already took place.

The researchers, aim to address these problems and create a mobile-based application called Okasyon that contains a wide array of event product/service providers. Through the application, the finding of the right resources in the planning of events can be done as easy as possible and it would make users aware of the quality of the event service providers they are going to transact with way before their event starts through the ratings and comments provided in the app. Okasyon can make the users decide on which event category to plan and automatically suggest the products or services that are essential in that event category like cakes, gowns, venue, flowers, emcee, church for weddings and many more.

After the different event products/services have been laid out for the specific event category, the user then sets his/her preferences like the location, quantity, quality of the products/services that she wants and then sets his/her budget with allocations and then multiple stores and event product/service providers like makers of cakes, gown rentals, different venues that fit within the preferences that he/she has set are suggested and recommended. Every store has its own profile with ratings, comments, reviews, and additional information to guide the users in finding the best deals for them. Should the users decide to use any product/service recommended to them, a transaction feature where all your transactions when, where, and what will be recorded will also be available in the mobile app.

Before a supplier, client, or event organizer is able to register, they both have to upload documents like their IDs and Business Permits. These documents will be scanned and checked through the Optical Character Recognition Technology and compare whether the information in the document matches that of the inputted information. This process has to be undergone for optimum security and to make sure that the documents uploaded are legit and to prevent scammers from using the application. Also, to provide the users with a wider array of recommendations, the application will perform a nearby search of places/stores that offers the services that users are looking for.

The researchers would also like to make the app a platform where event organizers can promote their event and can easily market it to a lot of people. It will also serve as a platform where those organizing events can easily look for generous individuals or company sponsors for their events. People can also browse through events that they'd like to participate in so that they are well informed of the events happening around them. And on the other hand, provide a platform where event product/service providers can easily market their business.

With the app, a society where the hassle of having to go from one place to another to canvass the prices of event service providers will be eliminated is within reach. The researchers envision a society of comfort where both the users and those providing the services will be benefitted – a Win-Win situation. With Okasyon, event organizing will be made easy and hassle-free!

## **Objectives of the Study**

This study aimed to create a mobile-based application system that could recommend event products and/or services and provides a platform for the promotion of events.

In order to achieve this aim, the specific objectives were:

1. to gather data about the various event products/services that organizations/companies offer and the event processes involved;
2. to determine techniques to search, filter, and match user's preferences including nearby event suppliers of products/services;
3. to define the tools/processes needed to perform a document scan through Optical Character Recognition Technology for validation and optimum security; and
4. to define notification schemes for event organizers, suppliers, and promotions.

## **Scope and Limitations of the Study**

In this study, although there are features that are available even if a device is offline, to be able to use majority of the features that our app has to offer, the users will have to be connected to the internet.

Secondly, in order for the users to perform a transaction with a given event service/product provider, the providers will have to register and upload their products with the necessary information. Those posted on the internet and are retrieved by the web crawlers will only be able to give information about the stores but not allow a transaction.

The application will only be able to run on android devices with an operating system version of 5.1 (Lollipop) up to the latest versions.

The application will not be able to book tickets for the events that they wish to join, but rather, only provide them with enough details about the events they are interested in.

The application will only be able to run on Android mobile phones and not on any other platform.

## **Significance of the Study**

This study aimed to provide ease and comfort to all its stakeholders imposing a positive impact into the society as a whole. The outcome of the study is beneficial to the following stakeholders:

**Event Organizers.** Our application will provide them with a wider array of choices in the resources that they will be needing for their events and not just be limited to those stores or companies that they know of. Also, our app can serve as a platform where they can promote their events to a wide range of people and even look for sponsors for their event.

**Event Products/Service Providers.** Through our app, they can easily promote and market the products or services they are offering. Making their products and services known to the public and making transactions with multiple clients won't be a hassle for them anymore.

**General Public.** Those people just looking for specific event products/services but not necessarily organizing or having an event may also be benefitted by our app. Also, those people looking for events to participate in can make use of our app.

**Sponsors.** They can look for the best and most fitting events where they can market and advertise their products through sponsorships.

**Researchers.** The researchers will be benefitted because through this study, they will be able to hone their research and technical skills which will be useful for them once they enter the real industry.

**Future Researchers.** This study could also serve as a basis for future studies like recommender systems. Also, the algorithms and formulas presented in this study could be used and even enhanced by future researchers.

## Flow of the Study

This diagram shows the different inputs, the processes that these inputs will undergo to produce the needed information and the output of the study.

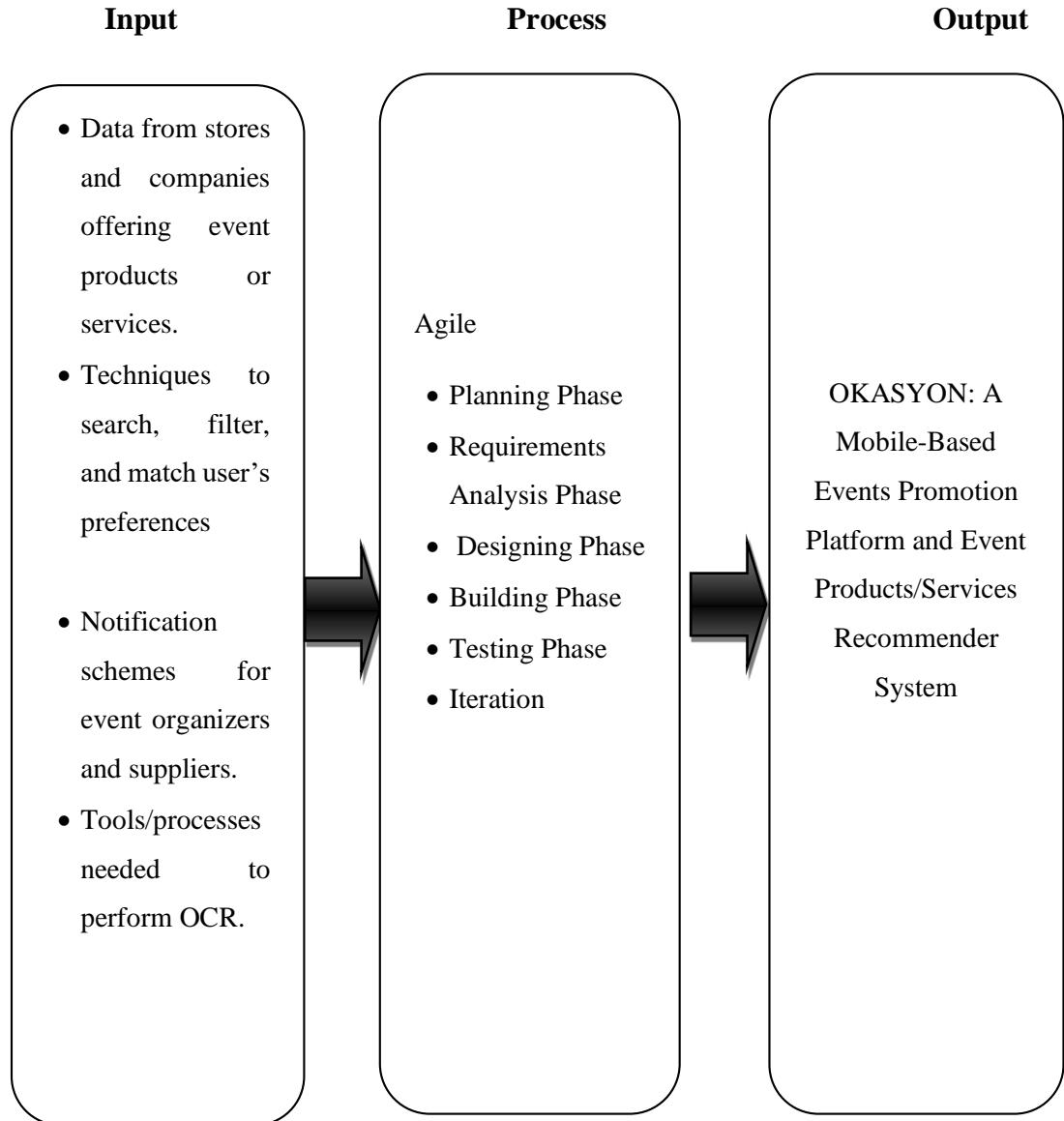


Figure 1: **Flow of the Study “OKASYON”**

Figure 1 is a diagram that shows the flow of the study. The flow contains three parts. The input, followed by the processes, and lastly the output. The first part, Input, presents the needed data and requirements of the system. The process, on the other hand, presents what the data will undergo to produce the necessary information. Lastly, the output is the application that will result after the inputs have been processed.

## Definition of Terms

This section contains the specific meaning of the following terms in respect to the context and how it is being used in the study. It also contains specific meanings for some terms that only apply to this study to provide more clarity to the study.

**Event Organizers** – the people who plan, organize, and gather the necessary resources for events which include small scale and not just limited to those large-scale occasions.

**Event Products/Services Provider** – stores, companies, or individuals that offer products or services necessary to an event like sound systems, venues, emcees, catering services, and the like.

**Event Processes** – this includes the processes on how suppliers of event products/services market their products, on how they communicate with their clients and fellow suppliers, and how event organizers find and purchase their event products or services

**Filtering** – is a process of evaluating the attributes of an object and recommending/choosing just those whose attributes match the users' preferences.

**Notification Scheme** - a process of notification that defines who is notified, when they are notified, and how notifications are sent.

**Optical Character Recognition** - is the mechanical or electronic conversion of images of typed, handwritten or printed text into machine-encoded text, whether from a scanned document, a photo of a document, a scene-photo or from subtitle text superimposed on an image(Wikipedia, 2018).

## **CHAPTER II**

### **REVIEW OF RELATED LITERATURE AND STUDIES**

This section contains discussion on recommender systems and filtering techniques. This section also includes the studies related to filtering and recommendation systems that are sufficient in understanding the concepts and principles underlying these processes.

#### **Related Literature**

A recommendation system is a subclass of information filtering system. Recommender Systems (RSs) are software tools and techniques providing suggestions for items to be of use to a user. The suggestions relate to various decision-making processes, such as what items to buy, what music to listen to, or what online news to read. Instead of tens of thousands of books in a superstore, consumers may choose among millions of books in an online store. Increasing choice, however, has also increased the amount of information that consumers must process before they are able to select which items meet their needs. Also, recommender systems are decision support systems available on the web to assist users in the selection of item or service selection in online domains. In doing so recommender systems assist users in overcoming the information overload problem (Lu, Wu, Mao, Polatidis & Georgiadis, 2013). A group of people also share the same sentiment and think that recommender systems are information systems algorithms that are used to cope with the information overload problem on the Internet (Jannach, Zanker, Felfernig and Friedrich 2010, Polatidis and Georgiadis 2013, Valcarce, Parapar and Barreiro 2015).

In a literature survey by Joearan Beel et al (2015), they found that more than half of the recommendation approaches applied content-based filtering (55 %). Collaborative filtering was applied by only 18 % of the reviewed approaches, and graph-based recommendations by 16 %. Other recommendation concepts included stereotyping, item-centric recommendations, and hybrid recommendations.

In a cross-sectional survey and qualitative interview study by Powel et al (2011), they found at least four motivations why people use the Internet to find relevant content: “desires for reassurance, for second opinions for greater understanding of existing information and to circumvent perceived external barriers to traditional sources”. RSs are primarily directed towards individuals who lack sufficient personal experience or competence to evaluate the potentially overwhelming number of alternative items that an online store, for example, may offer. RSs try to predict what the most suitable products or services are, based on the user’s preferences and constraints. In order to complete such a computational task, RSs collect from users their

preferences, which are either explicitly expressed, e.g., as ratings for products, or are inferred by interpreting user actions. Recommender systems improve loyalty by creating a value-added relationship between the site and the customer.

There are eleven defined popular tasks that a Recommender System can help assist in implementing (Herlocker et. al, ND). These are: find some good items, find all good items, annotation in context, recommend a sequence, recommend a bundle, just browsing, find credible recommender, improve the profile, express self, help others, and influence others.

Recommender systems are becoming ubiquitous marketing tools. Recommendation algorithms can be either based on content or driven by collaborative filtering (MU ZHU, University of Waterloo, ND). Currently, there are three most common approaches to a recommender system: Collaborative Filtering, Content-Based Filtering, and Hybrid Filtering. Collaborative filtering (CF) is the process of filtering or evaluating items through the opinions of other people. Many CF systems use rating to recommend other items that the user might be interested in. On the other hand, in content-based filtering, the system learns to recommend items that are similar to the ones that the user liked in the past. The similarity of items is calculated based on the features associated with the compared items. In hybrid filtering, the Recommender Systems are based on the combination of two or more techniques. A hybrid system combining techniques A and B tries to use the advantages of A to fix the disadvantages of B.

Recommender Systems are by far one of the most successful applications of Big Data / Machine Learning. These are an integral part of the success of Amazon, bringing more than 30% of revenues, and Netflix, where 75% of what people watch is from some sort of recommendation (Alessandro Vitale, 2015). Most Recommender Systems look at user behavior (the input data, ex. what the user purchased or viewed in the past) and through different techniques (the algorithms) find a list of relevant items for the user (the output).

In regards to event recommendation systems, developing a recommender system for events raises several issues that are different from other domains. Events rapidly disappear, users' preferences quickly change over time, and direct feedback does not exist for events that have not taken place. As the recommendations will not be further available, user's context become a key factor for providing accurate recommendations (Horowitz et al, 2018). There are also many activities that people prefer/opt out attending and these events are announced for attracting people. An intelligent recommendation system can be used in a social networking site in order to recommend people according to content and collaboration assessment (Mehmet Kayaalp, 2009).

Given the impact to the bottom line, there has been significant research on Recommender Systems algorithms (ex. collaborative filtering, content based, matrix factorization, etc.), boosted by the 1 Million \$ Netflix Prize competition. Since 2007, there is even an ACM conference fully dedicated to the topic (Alessandro Vitale, 2015). This proves how evident and important recommendation systems are nowadays.

These related literature shows that Recommender Systems have been a trend nowadays especially that E-Commerce is on the rise and that algorithms for recommendation systems can vary depending on the type of system created and that these algorithms can still be further improved. Also, these literatures also prove that there is a huge market opportunity in this industry especially because of the advantages and ease that Recommender Systems bring to society.

## **Related Studies**

There is a study that focuses on the same market and functionality with our proposed system and is entitled Planning Pod. Planning Pod is an online collaborative tool that allows a user or a team to plan an event e.g. weddings, birthday parties, house parties, product unavailing. Planning Pod lets the user/s manage events from creating a timeline for the event, keeping track of the attendees, keep track of the overall budget and the supply spending. The website for Planning Pod is accessible to almost all devices that can connect to the internet, though there are no native apps available for both Android and Apple devices (Planning Pod, 2012).

Wedding LookBook is an application that provides a catalog of essential bridal supplies e.g. wedding dresses for themselves and their bridesmaid, wedding rings, accessories, and engagement rings. Wedding LookBook lets the user view wedding dress designs and finds stores that carry that design. The user can also look for dresses based on the designer and bookmark the ones they like. The application also provides recommendations to the user based on their bookmark. The app provides different filters for each category, such as designer, color, and fabric. The application also allows the user to chat with the store. The stores found in the app are limited to North America (The Knot, 2014).

Event Planner is an android application that helps a user plan for an event. The Application features a set of tools that the user can use to organize the party or any other event. Such as a guest list with invitations and RSVP, a to-do list, a shopping list, and a budget planner (mMobile App, 2018)

WE/PLANR is a web-based application that allows users to create events and find vendors for their event needs in one place. It also helps manage the users' budget and sends notifications every time a payment is due and reminds users of their daily tasks for their events. The web application can also provide contact information and a chat feature to communicate with vendors or people they are transacting with (WePlanr, 2016).

Eventbrite is an event management and ticketing website. It is also available in both android and iOS devices, particularly in mobile phones and tablets. Eventbrite allows users to browse, create, and promote local events. Eventbrite also allows event organizers to offer online ticketing services for their events; a fee of 2.5% of the ticket price plus 99 cents per ticket sold is charged to generate revenue, but Eventbrite does not charge any fee for free events. Through Eventbrite, you can also send invitations to guests and show to the user's necessary event details like location, dates, etc. (Kevin Hartz et al, 2006).

These related studies show the different existing solutions to the problems in the events industry. However, most of these studies contains various limitations which the researchers will aim to address. The researchers will strive to implement the limitations and include it in this study to provide a better and more comfortable solution to the problems facing event organizers, suppliers, and the event industry as a whole.

## Comparative Matrix

The comparative matrix shows the different studies, systems, and applications that are similar to the proposed system. It shows the similarities and differences, the strengths, and weaknesses of each system.

Table 1.1

COMPARATIVE MATRIX

Related Studies	Features	Limitations	Platform Detail
<b>Planning Pod</b> <b>URL:</b> <a href="https://planningpod.com/">https://planningpod.com/</a> <b>Year:</b> 2012 <b>Proponents:</b> Planning Pod	<ul style="list-style-type: none"> <li>• Web-based system that allows a user or a group of users to collaborate and plan events</li> <li>• Mobile responsive, works on computers, tablets, and smartphones.</li> <li>• Enables Users to keep an attendance list for the guests</li> <li>• Enables users to keep track of the costs of the event.</li> <li>• Enables users to create timelines or itineraries for the event, and keeping track of team members</li> </ul>	<ul style="list-style-type: none"> <li>• Requires internet connection on the device to access the site</li> <li>• Does not have a native app for smartphones</li> <li>• It can only be accessed using a web browser</li> </ul>	<ul style="list-style-type: none"> <li>• Windows PC</li> <li>• Apple PC</li> <li>• iPhones</li> <li>• iPads</li> <li>• Android Devices</li> </ul>

Table 1.2  
COMPARATIVE MATRIX cont'd

Related Studies	Features	Limitations	Platform Detail
<b>Wedding LookBook</b>  <b>URL:</b> <a href="https://itunes.apple.com/us/app/wedding-lookbook-by-the-knot/id362763144?mt=8">https://itunes.apple.com/us/app/wedding-lookbook-by-the-knot/id362763144?mt=8</a>  <b>Year:</b> June 5, 2014  <b>Proponents:</b> The Knot	<ul style="list-style-type: none"> <li>Enables the user to browse the most popular wedding dress designs, and finds a list of bridal stores that have that design available.</li> <li>Enables the user to view dresses for their bridesmaids, flower girl, and mother of the bride.</li> <li>Allows the user to bookmark all the designs they like.</li> <li>Enables the user to browse engagement and wedding rings, and provides a list of stores that carry those rings.</li> <li>Provides a chat function for the user to talk with the store.</li> </ul>	<ul style="list-style-type: none"> <li>Requires internet connection on the device to use the app</li> <li>Almost all the stores that are within the app are based in North America</li> <li>Designed for mobiles and smartphones</li> </ul>	<ul style="list-style-type: none"> <li>Android 4.0.3 or later</li> <li>iOS 9.0 or later</li> </ul>

Table 1.3  
COMPARATIVE MATRIX cont'd

Related Studies	Features	Limitations	Platform Detail
<b>WePlanr</b> <b>URL:</b> <a href="https://www.weplanr.com/">https://www.weplanr.com/</a> <b>Year:</b> 2016 <b>Proponents:</b> WePlanr	<ul style="list-style-type: none"> <li>• Web based application for organizing your events and look for vendors that can offer the things you need for your event</li> <li>• Reminders every time a payment is due</li> <li>• Find all vendors in one place</li> <li>• Review ratings &amp; testimonials</li> <li>• Search by filter and chat direct</li> <li>• Updates budget automatically</li> </ul>	<ul style="list-style-type: none"> <li>• The application is web-based only and does not have a mobile app counterpart</li> <li>• It requires an internet connection to be able to access most of its functionalities</li> <li>• It is only available in Australia and not yet in other countries</li> </ul>	<ul style="list-style-type: none"> <li>• Personal Computer / Smart phones</li> <li>• Windows, MAC, Android Devices, iPhones</li> </ul>

Table 1.4  
COMPARATIVE MATRIX cont'd

Related Studies	Features	Limitations	Platform Detail
<b>Event Planner</b> <b>URL:</b> <a href="https://play.google.com/store/apps/details?id=com.mmobile.app.event&amp;did=com.mmobile.app.event">https://play.google.com/store/apps/details?id=com.mmobile.app.event&amp;did=com.mmobile.app.event</a> <b>Year:</b> May 24, 2018 <b>Proponents:</b> mMobile App	<ul style="list-style-type: none"> <li>Enables the user to create events with their own titles, budgets, shopping list, to-do lists, and guests.</li> <li>Capable of inviting guest by importing their names from the user's contacts</li> <li>Capable of sending e-vites (electronic invites) through the guest's email.</li> </ul>	<ul style="list-style-type: none"> <li>Cannot send SMS to the guests using their phone numbers</li> <li>Designed for mobiles and smartphones</li> </ul>	<ul style="list-style-type: none"> <li>Android 4.4 or later</li> </ul>

Table 1.5  
COMPARATIVE MATRIX cont'd

Related Studies	Features	Limitations	Platform Detail
<b>Eventbrite</b> <b>URL:</b> <a href="https://www.eventbrite.com">https://www.eventbrite.com</a> <b>Year:</b> 2006  <b>Proponents:</b> Kevin Hartz Julia Hartz Renaud Visag	<ul style="list-style-type: none"> <li>• Users can browse, create, and promote local events.</li> <li>• Show event details like location, dates, ticket prices etc.</li> <li>• Send guests invitations</li> <li>• Collects custom information from guest preferences that would guide event organizers in preparing for the event.</li> <li>• Event organizers can offer online ticketing services for their events</li> </ul>	<ul style="list-style-type: none"> <li>• Limited amount of sent guest invitations.</li> <li>• Will need an internet connection to access most of its features</li> <li>• Cannot send notifications of nearby events</li> <li>• Shows events only based on the location a user chooses</li> </ul>	<ul style="list-style-type: none"> <li>• Windows PC, MAC PC, and Linux PC</li> <li>• Android phones and devices, iPhone, iPad</li> </ul>

Table 1 shows the different related studies in tabular form with the features, limitations, and platform details to thoroughly compare them from one another and also to show how these studies are related to our study. Against all of these studies, our application is unique and its main advantage is the feature where users can register as suppliers and upload their information directly to our app and that it caters not only to wedding events but various events as well. Also, the web crawler feature and the 2 in 1 functionality (Recommender System and Events Promotion platform) makes our app even more different and convenient to use. Also, unlike other studies, our study provides a platform for event organizers to easily look for willing sponsors and contains a transaction feature to keep track of all the transactions made by both users and suppliers. Lastly, our study will be including Optical Character Recognition technology that would help verify and validate the documents uploaded by both the users and suppliers like the business permits and IDs and make sure that these are legit.

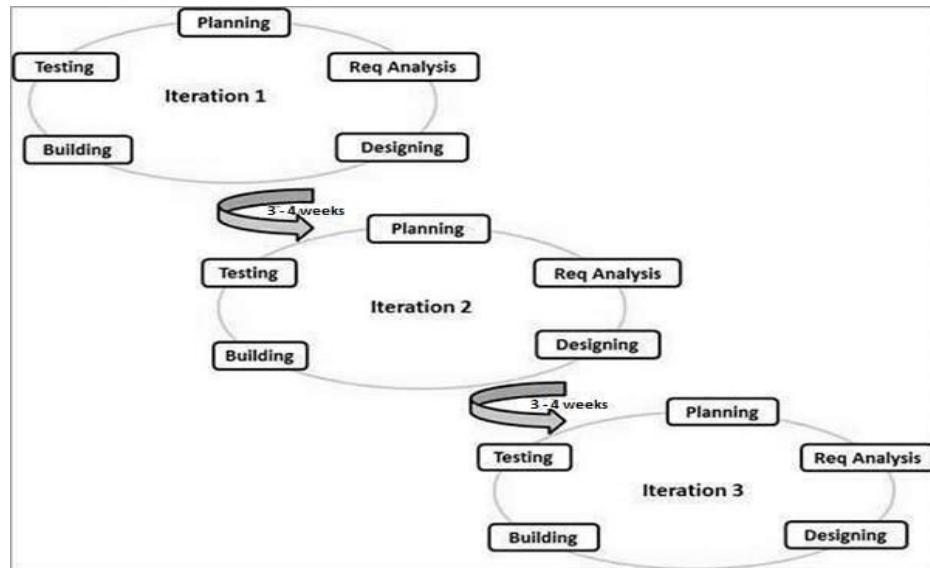
## CHAPTER III

### RESEARCH METHODOLOGY

This section contains the processes involved in developing the proposed system coupled with charts and diagrams to better explain the processes and to facilitate a better understanding of the proposed system. It also contains the software engineering methodology used and contains the designs like User Interface Designs and Database Design to give a clearer view of the entire proposed system and its functionalities.

#### **Software Engineering Methodology**

For this study, the researchers used Agile Methodology in developing the proposed system. According to Version One's State of Agile Report, as of 2017, 94% of organizations practice Agile in some form. Agile Methodology is an iterative and incremental development method that advocates adaptive planning, evolutionary development, early delivery, and continual development. Most agile development methods break product development work into small increments that minimize the amount of up-front planning and design. Iterations, or sprints, are short time frames (time boxes) that typically last from one to four weeks. Each iteration involves a cross-functional team working in all functions: planning, analysis, design, coding/building, and testing.



**Figure 2: Agile Methodology**

Figure 2 shows the different phases/stages of the agile Methodology. The methodology contains 5 phases that are iterated depending on the how many iterations the project needs. Every

iteration lasts for 3-4 weeks and is usually called a sprint. Through this model, a working software can be quickly produced in every iteration and if there are necessary additions that have to be done, it can be addressed in the next iteration as part of the sprint's backlog. Also, through agile, the changes in plans and requirements can be catered to because the agile way was built to be responsive to change especially in the world of technology where user trends change very quickly.

The researchers used this methodology due to the time constraints. They needed a quick basic functioning system and to constantly deliver a working software and this is the best way to achieve it. The researchers also chose this methodology because of the freedom that agile gives to change. If they would want to apply necessary changes whenever there is a need to, this methodology allows them to do so.

**Planning.** This phase involves creating a set of plans that guided the team through the execution and closure phases of the project. In this phase, the researchers determined the objectives for the proposed system. The proponents calculated and estimated the costs of development particularly in every iteration done by the team. The proponents also laid down in this phase the resources needed to complete every iteration as well as the roles that every person played in the completion of the project. The proponents in this phase also carefully scheduled the needed activities to be done so as to guide the team on the milestones and deliverables and to keep track of the team's progress. The plans created during this phase helped the team to manage time, cost, quality, change, risk, and issues. The planning was led by the project manager.

**Requirements Analysis.** During this phase, the researchers set the expected quality of the output including the features of the module being created in the iteration. This is also the phase where the module specifications were finalized and the things that the module can and cannot do were made clear.

To be able to finalize the output of the requirements analysis phase, the researchers conducted surveys and interviews particularly to those who belong to the events industry and have been in it for quite some time already to make sure that the answers collected will be credible. These interviewees were asked about how the events industry work, the problems that they normally encounter, and the pain points of the industry that they would like to solve so that the proponents can look for ways and features to cater to the interviewee's problems and concerns. After conducting these surveys, the researchers formulated the features of the module and then evaluated if these features are feasible given the time and resources allotted for the iteration.

Depending on the iteration or the module, both the Project Manager and the Lead Programmer led the requirements analysis phase.

**Designing.** During this phase, the proponents first examined carefully the requirements specifications and created the necessary charts of the proposed system like the logical design of the system through flowcharts. After the logical design, the proponents led by the UI Designer started creating the wireframes or UI Design for the module in the current iteration. The Database design led by the Database Designer then followed. The proponents created the database design including the use case diagrams, entity relationship models, and the structure of the data flow and storage while using the UI designs as guide especially in creating the columns for the tables. The storyboard for the module was then created so as to guide the programmers in the next phase. Overall, this phase was led by the UI Designer.

**Building.** In the building phase, the proponents led by the Lead Programmer actually implemented/coded the module. First, the proponents studied the flow charts, database and UI designs of the previous phase so as to guide them in the implementation. The Lead programmer then established the naming conventions and programming rules to follow in coding so that the team will be unified in naming variables, methods, etc. and so that everyone will better understand and easily read each other's code. The proponents then divided the coding work among themselves making sure that each member of the team gets to code. After every member completed their tasks, the code was joined by using Git.

**Testing.** In the testing phase, the proponents conducted code reviews before actually testing the system. The hipsters also created test cases so that the testing phase would be more convenient for the team. Testing of the module then followed. This phase was led by the Lead Programmer, and the functionalities and features created in the iteration were all tested. Once there are bugs or errors encountered during the testing process, it was noted in the test cases document. After the testing was done, the team then tried to correct the bugs and errors before proceeding with the next iteration. All these steps from the planning to the testing were done in the specified amount of time and stayed within the schedule set.

**Planning/Conception – Initiation Phase;**

The project initiation is the first and the most crucial phase in the Project Life Cycle. This involves starting the project and defining the purpose, objectives, scope, schedule and flow of the project. This phase involves the Business Model Canvass, Program Workflow, Gantt chart, and the Functional Decomposition Diagram.

**Business Model Canvass**

The BMC is a tool that helps us understand a business model in a straightforward and structured way. Through the BMC we are able to state the value of our project, the market, the means to achieve our project and how our project will play in the market. Through the BMC, we will be enlightened about whether or not the project is worth doing.

Table 2  
BUSINESS MODEL CANVAS

Key Partners	Key Activities	Value Proposition	Customer Relationship	Customer Segment
<ul style="list-style-type: none"> <li>• Stores / companies providing event products/services</li> <li>• Android programmers</li> <li>• Event organizers streams</li> </ul>	<ul style="list-style-type: none"> <li>• Research more about chosen topic (algorithms, filtering techniques, related studies)</li> <li>• Interview event organizers</li> <li>• Gather data from event needs suppliers</li> <li>• Consult with android developers</li> <li>• Develop android mobile application</li> </ul>	<ul style="list-style-type: none"> <li>• Recommend wide array of choices for event products/services based on user preferences and past transactions</li> <li>• Provide platform for easy promotion of events</li> <li>• Easily look for sponsorships for your events</li> <li>• Provides ratings and reviews to help users in deciding which services/products to purchase.</li> <li>• Help event product/service suppliers promote their business</li> </ul>	<ul style="list-style-type: none"> <li>• Personalize profiles of users based on their activity</li> <li>• Facilitate better decision making</li> <li>• Keep the users updated with information through the notification feature.</li> </ul>	<ul style="list-style-type: none"> <li>• Event organizers</li> <li>• Event products/services supplier</li> <li>• Event sponsors</li> <li>• Avid event-goers</li> <li>• General public</li> </ul>
	<b>Key Resources</b>		<b>Channels</b>	
	<ul style="list-style-type: none"> <li>• Developers.</li> <li>• IDE</li> <li>• Cloud-based database storage and back-end</li> <li>• Android smart phones</li> <li>• Devices for developing software</li> </ul>	<ul style="list-style-type: none"> <li>• Notification feature for both suppliers and users</li> <li>• Budget management.</li> <li>• Shows direction to guide users to the store's location real time.</li> </ul>	<ul style="list-style-type: none"> <li>• Social media platforms</li> <li>• Word of mouth</li> <li>• Digital ads</li> <li>• Emails</li> </ul>	
Cost Structure		Revenue Streams		
<ul style="list-style-type: none"> <li>• Installation and maintenance of software</li> <li>• Marketing of software</li> <li>• High-end development tools</li> </ul>		<ul style="list-style-type: none"> <li>• Advertisements</li> <li>• Payment from the event products/service suppliers who wish that their products be prioritized in recommending</li> <li>• Sales commission agreement between event products/services supplier</li> </ul>		

Table 2 shows the application's business strengths and business model. It shows the qualities that can make the application viable in the market, the key activities and key partners in order to carry out the project, the cost structure, revenue streams, and the target market or customer segments as well. This table gives a bird's eye view of how the app will sell in the market.

## Program Workflow

Through the program workflow, the flow of the system for the different users involved will be determined and this diagram will serve as the guide in the creation of the UI diagrams.

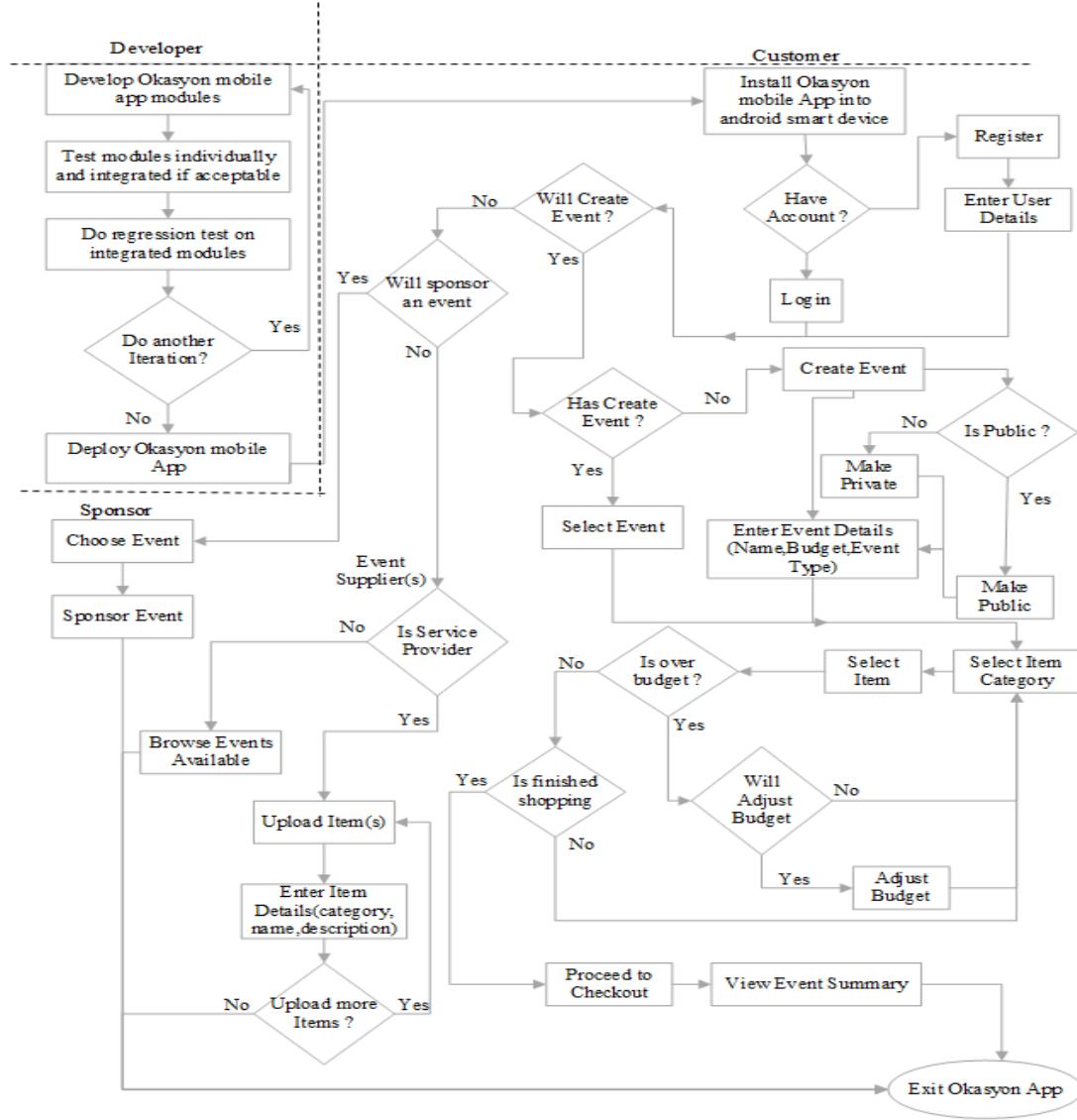


Figure 3: **Program Workflow**

Figure 3 is the program workflow for the Okasyon App. This figure shows first the flow of development from its initiation until deployment and then proceeds in showing the series and flow of functionalities that the user undergoes while using the app depending on their user role. The program workflow will also serve as guide particularly for the developers in constructing the system's design for it can also show the features that the proposed project possesses.

## Validation Board

The validation board is very important in ensuring that the study proposed is relevant and is acknowledged to have social importance. It is also used to prove that there are certain sections in society that will be benefited by the study.

Table 3.1  
VALIDATION BOARD

Experiments	1	2	3	4	5
Customer	Event Organizers	Event Organizers	Event Organizers	Event Attendees	Event Product/Service Suppliers
Problems	Event Organizers have limited choices when purchasing/r enting products/ser vices they need for their event.	Event organizers have a hard time looking for suppliers that fits within their preferences like budget, quality etc.	Event Organizers have a hard time looking for sponsors for their events.	Avid Event Attendees have no ideas of the events happening around them	Suppliers have a hard time marketing their products/service s to a wide array of customers and they have a hard time promoting their store.
Solution	A mobile application that recommends event products/ser vices depending on the	An android events promotion platform that promotes the events created to all the users of the application	An android application that enables event attendees to search for nearby events depending on location, theme, or	An android application specifically dedicated for the events industry where they can register their store and recommend	

	<p>filters/preference set.</p>	<p>possibly to sponsoring companies or individuals.</p>	<p>types of event.</p>	<p>their event products/service s to all the users of the app especially if it meets the preferences set by the regular user/event organizers.</p>
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Table 3.2  
VALIDATION BOARD cont'd

Riskiest Assumption	Event organizers do not know of any supplier for the products/service that they need.	Event Organizers couldn't find suppliers within their budget considering the quality of these products/services that they want	Event organizers can't pursue their event because of budget constraints and lack of sponsorships	Event attendees want to attend events nearby but have no idea where, and what events to attend.	Event suppliers will have very poor sales because their stores aren't popular so it will be hard for the m to reach clients/customers
Method & Success Criteria	60% of the respondents agree to use the android application	60% of the respondents agree to use the android application	60% of the respondents agree to use the android application	60% of the respondents agree to use the android application	60% of the respondents agree to use the android application
Results and Destination					
Learning	Persevere Event organizers usually know of suppliers of event products/services but are	Persevere Event organizers usually have a hard time looking for affordable event products/services	Persevere There are mostly financial problems in creating events especially those small-	Persevere For avid event attendees, they can either hear of events from friends or they could	Persevere Suppliers particularly those that are not yet popular have a very limited market and sometimes their clients are

	very open to a wider array of choices in search of the best deals for them	vices and if they find affordable ones, the quality is compromise d	scale events. Sponsors such as Julie's Bakeshop, or Songhits could already be of big help to the event organizers.	either search on Facebook. But, in Facebook there are a lot of things we can see and it's hard to come across the exact events that we want to attend.	those that just live around the block. These suppliers would want to reach a wider array of clients and customers so as to help them with their sales and help them pay for their rental expenses for their store.
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Table 3 shows the different problems that our target market (event organizers, event attendees, products/services supplier) encounters. It also shows the researchers' proposed solutions to these problems through the proposed project. The validation board also contains the proof after multiple interviews and surveys that the proponents' target market agrees to use the android system and contains the things the researchers learned about the pain points of our target market and how they in themselves try to address these pain points.

### Gantt Chart

A Gantt chart is a type of bar chart that illustrates a project schedule. This chart lists the tasks to be performed on the vertical axis, and time intervals on the horizontal axis (Wikipedia, 2018). The Gantt chart guides the proponents on when certain activities should be done and finished. Through the Gantt chart we are also able to determine the predecessor activities and it could help us keep track of our project milestones.





## Functional Decomposition Diagram

The functional decomposition diagram is a top down representation of the entire system's processes. It shows the overall functionality and functions of the system that is broken down into lower level operations and processes and shows how these processes interact with each other.

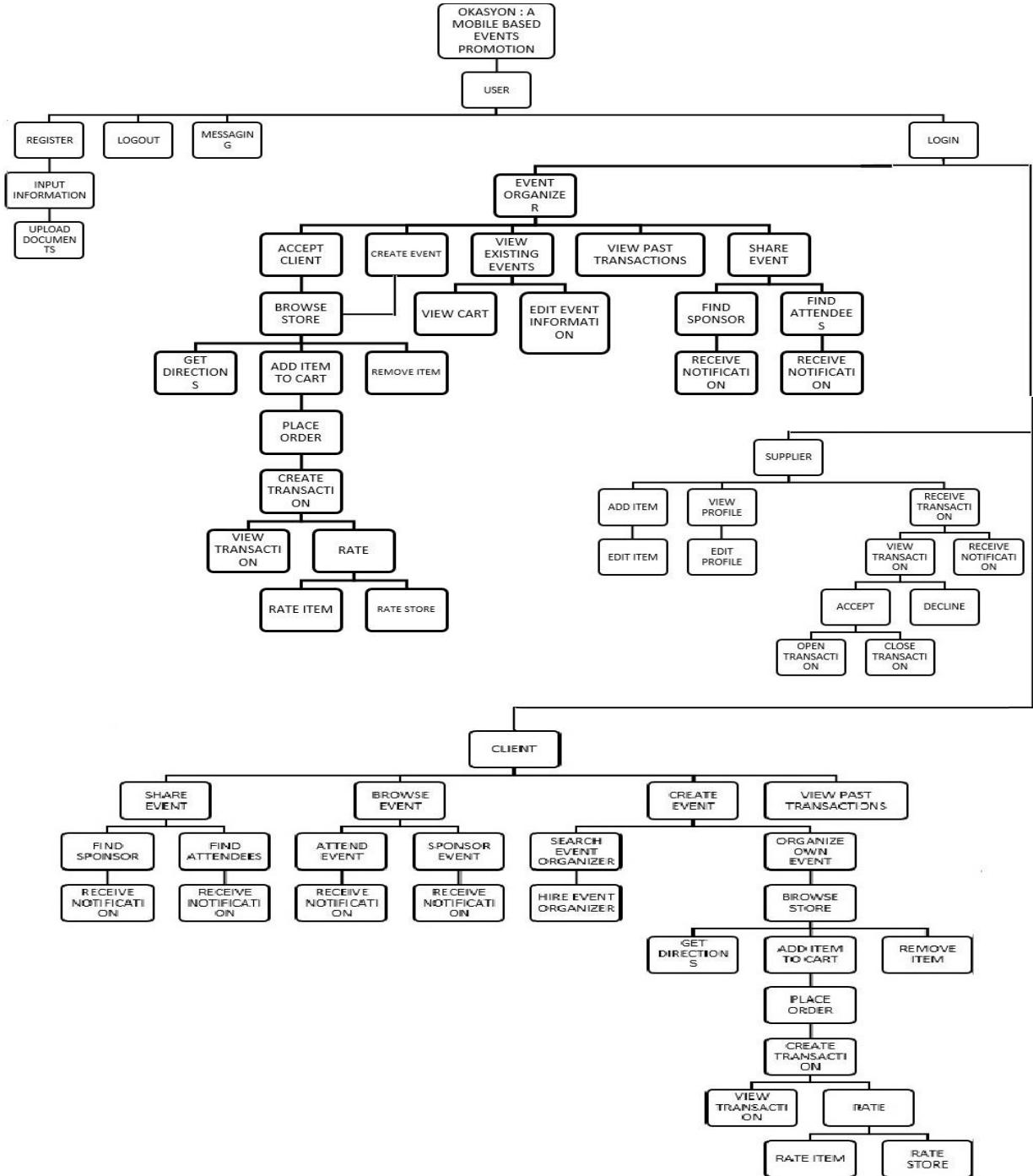


Figure 4: **Functional Decomposition Diagram**

Figure 4 shows the functional breakdown of Okasyon's processes which starts with either the registration or log-in. The system has generally three types of accounts, the client, event organizer, and the supplier. Before anyone can log-in to the system, they still have to register and upload necessary documents depending on the type of account to ensure optimum security.

Both the event organizers and clients can create events and browse items from different stores that they will need for their event. After browsing, they can either get real time directions going to the store or they can opt to message the suppliers and buy the items by adding it to their carts and proceeding to transaction. The event organizers and clients can also view their cart and transactions to keep track of them and view the events that they created and edit the information should they deem it necessary. The event organizer and clients can also opt to rate the items and stores that they transacted with. They can also make their events public so that everyone can see it and gather sponsors and attendees for their event.

The event organizers and clients' roles are quite similar however the event organizers cannot sponsor nor attend an event. The clients are also the ones who hire the event organizers and event organizers cannot hire other event organizers.

Store owners or suppliers can add items to their store and enter the necessary information and edit it also when deemed necessary. The suppliers can also receive the transactions created by the event organizers and can choose to accept or decline. Once the transaction is accepted, they can opt to close the transaction if the payments have already been given to them. They can also receive and reply to messages.

Lastly, for the clients, they can also search for events happening around them and they can opt to attend these events or sponsor them. After expressing interest in sponsoring, attending, or both, they then will receive notifications from the event organizers.

## **Analysis-Design Phase**

This phase is one of the most critical phases in the development of the system because this is the section where the functional requirements are considered and a clearer picture of the entire system is created through the User Interface diagrams. This is also the phase where the end-user's needs and interactions with the system are analyzed to make sure that the system can meet their expectations. The Database design will also be created in this phase and analyze how the User Interface Diagrams and the data in it are related.

## Use Case Diagram

A use case diagram is a simple representation of the user's interaction to the system depending on the type of user. It shows the relationship between the users and the different use cases and how they relate to each other.

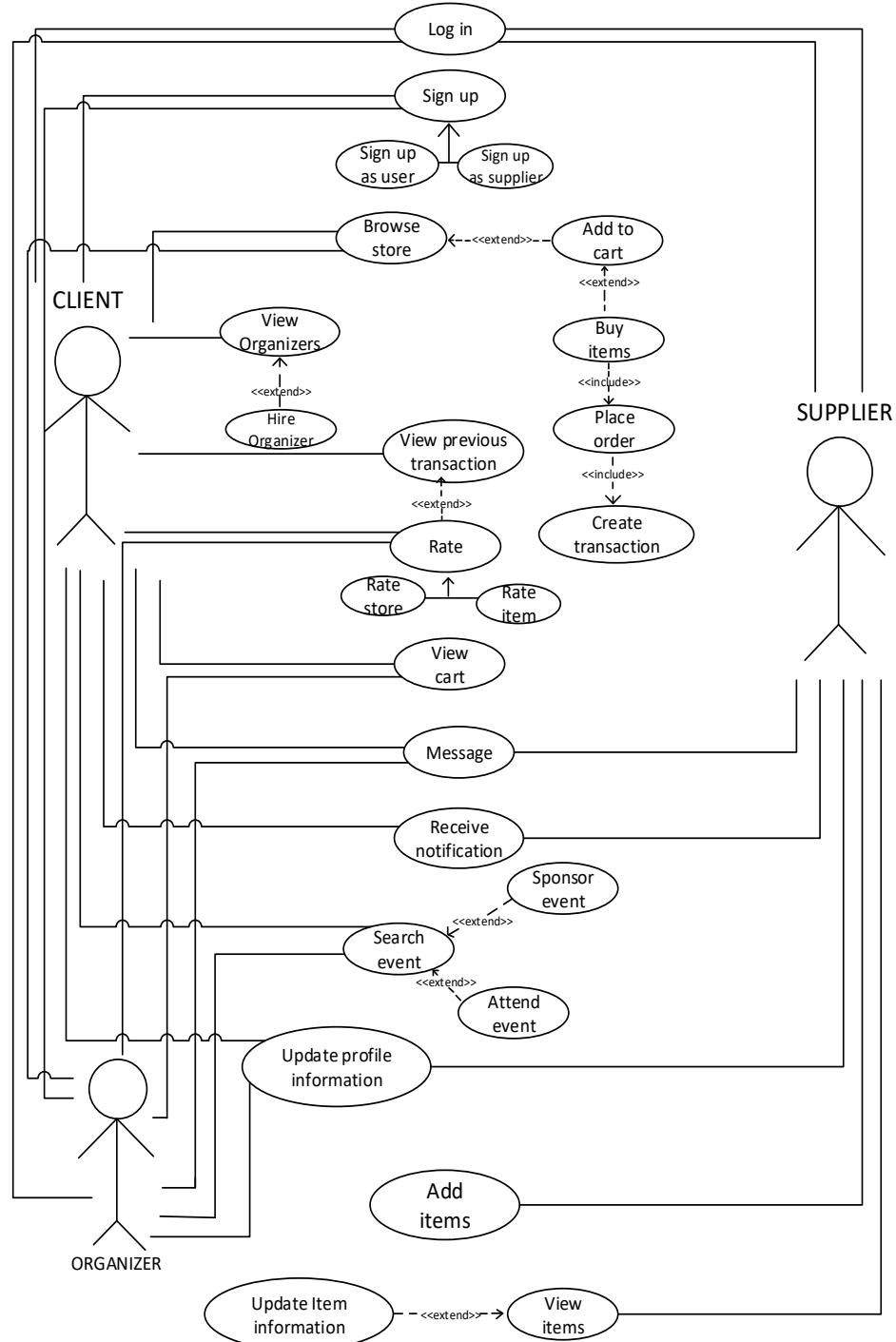


Figure 5: Use Case Diagram

Figure 5 shows the different actors or types of users in the system. All the actors go through the registration process depending on what type of user they are. Event Organizers and clients can create events and browse the items needed for their event and can also buy these items by adding these items to their cart and creating a transaction. They can also opt to get the directions of the stores should they want to physically go to each of them. Event organizers and clients can also view their transactions and rate the items and stores that they have transacted with. As event organizers, they cannot search for events to sponsor or attend only the clients are allowed to do so.

For suppliers, they can add the items to their store either for rent or for sale and provide the necessary information per item. They can also receive notifications and transactions created by the user and can choose to accept or decline these transactions. The suppliers can also view and update both their profile and item information should they deem it necessary. The messaging use case is mutually inclusive for all the actors in the system for communication.

## User Interface Design

This section shows a visual representation of the actual mobile application which focuses on maximizing usability and user experience. It shows how the user can interact with the computer (android device) and visually shows the functionalities or features that the users can use depending on the type of user.

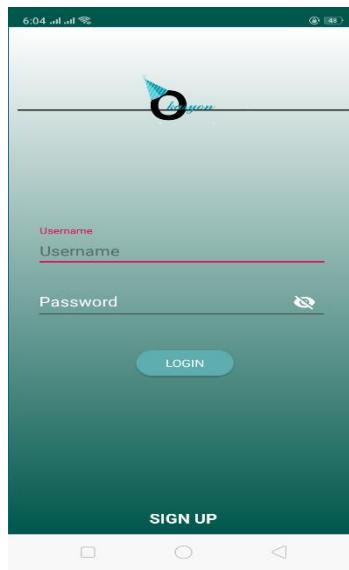


Figure 6: **Login Page**

Figure 6, the login page, enables the users to enter their credentials to be able to enter and use the system. It also allows the user to sign up should they have no credentials yet.

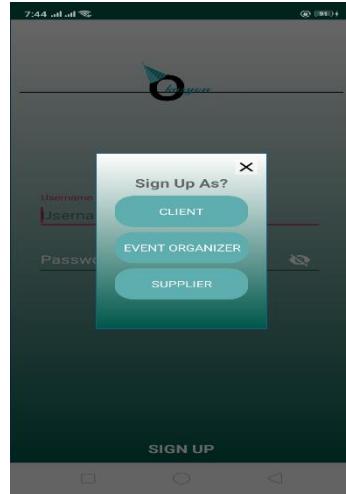


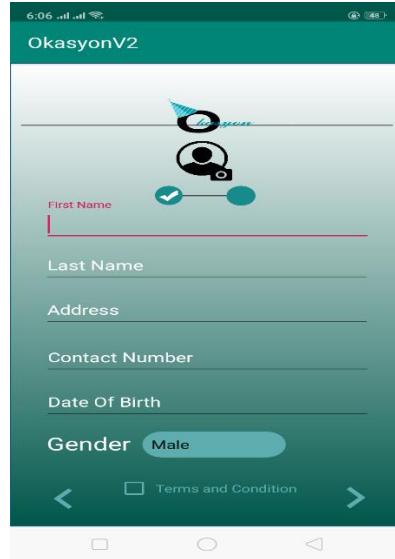
Figure 7: **Sign Up As Page**

Figure 7 enables the users to choose to either sign up as a client, event organizer, or as a supplier. Choosing to register as client or event organizer leads to the same registration page but a different registration page is provided for the suppliers.



Figure 8: **User Credentials Registration**

Figure 8 shows the User Credentials Registration page where the clients/event organizers enter their credentials which is used to log-in into the system.



**Figure 9: User Personal Info Registration**

Figure 9 shows the second part of registration where the clients/event organizers input their personal information necessary to create their profile. It also includes the uploading of their profile picture.



**Figure 10: User Registration Summary**

Figure 10 shows the summary of the information that the clients/event organizers inputted to check for mistakes. It also allows them to edit the information and save it.

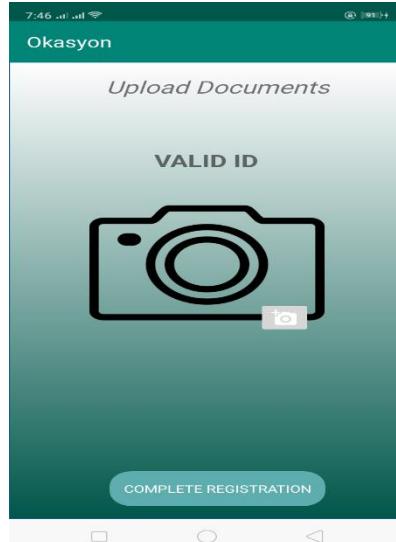


Figure 11: Upload User Documents

Figure 11 marks the last part of the registration process. It enables the event organizers/clients to upload documents like pictures of their Valid ID so that the system could validate these documents and once validated, the registration is completed.

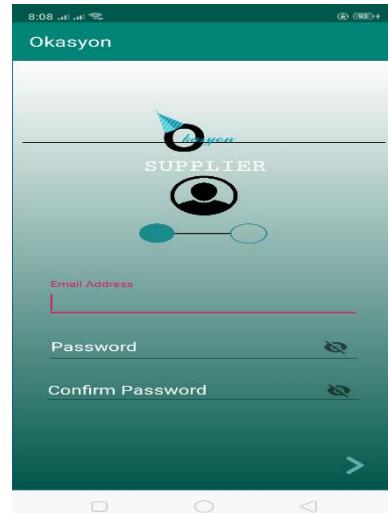
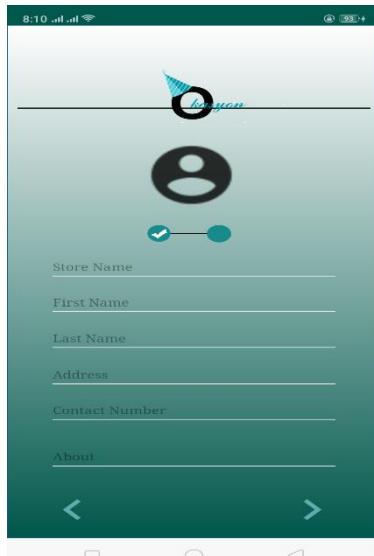


Figure 12: Supplier Credentials Registration

Figure 12 shows the Supplier Credentials Registration page where the suppliers enter their credentials which is used to log-in into the system.



**Figure 13: Supplier Personal Info Registration**

Figure 13 shows the second part of registration where the supplier inputs their personal information including the name of the store. It also includes the profile picture of their store and not that of the owner.



**Figure 14: Supplier Registration Summary**

Figure 14 shows the summary of the information that the supplier inputted to check for mistakes. It also allows the supplier to edit the information and save it.



Figure 15: **Upload Supplier Documents**

Figure 15 enables the supplier to upload their documents that would prove the legitimacy of their business. These documents are scanned through OCR and if it passes validation, the registration is successfully completed.

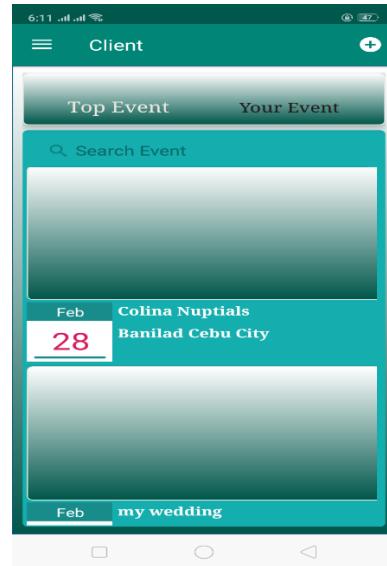


Figure 16: **User Home Page**

Figure 16 shows the first page that the client encounters after a successful login. The client will be given the top recommended events to go to and in the other tab, they can view the events previously created if there are any.

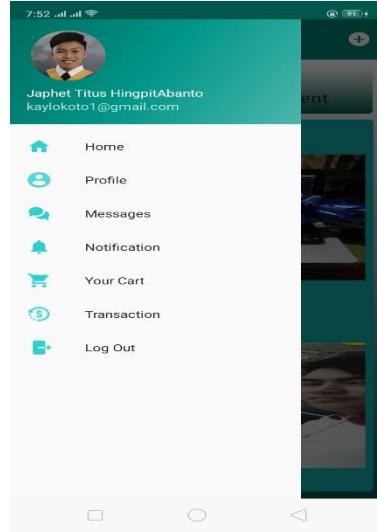


Figure 17: Sidebar Navigation

Figure 17 shows the sidebar options. The users can use the sidebar should they wish to go directly to certain pages such as the created events page or the messages page.

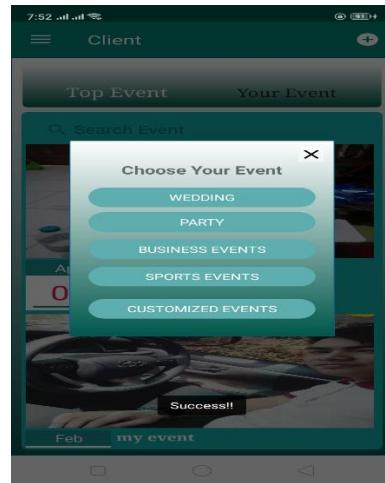


Figure 18: Event Category

Figure 18 shows that once the add button which creates a new event is clicked, a modal appears prompting the regular user to choose an event category.

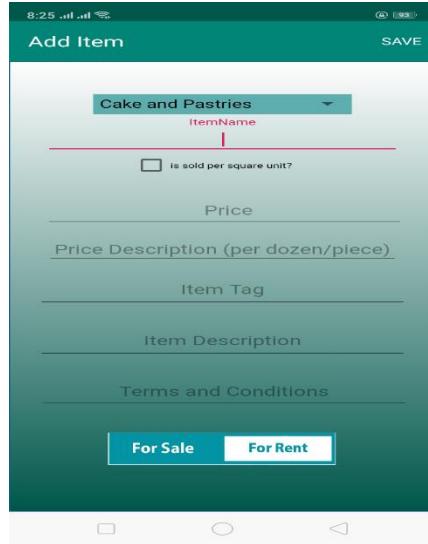


Figure 19: **Event Details**

Figure 19 enables the event organizers/clients to input the necessary details of the event before actually creating the event. They must select the theme/s for the event and must specify if the event must be private or public.

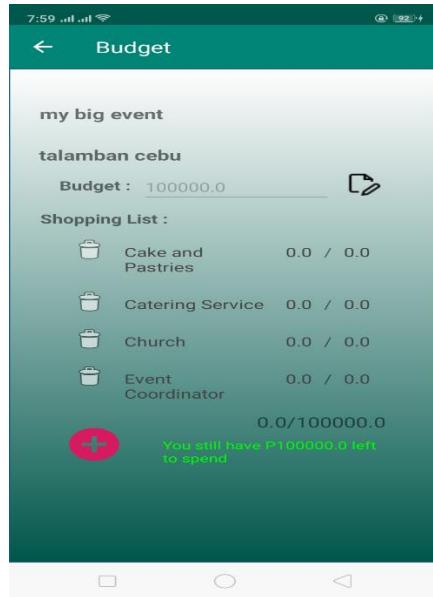


Figure 20: **Set Budget**

Figure 20 is the page where the default item categories that fall under the chosen event are shown. In this page, the event organizers/clients can set a specific budget for a specific item category. They can also opt to delete some item categories using the trashcan button and add item categories depending on their needs.

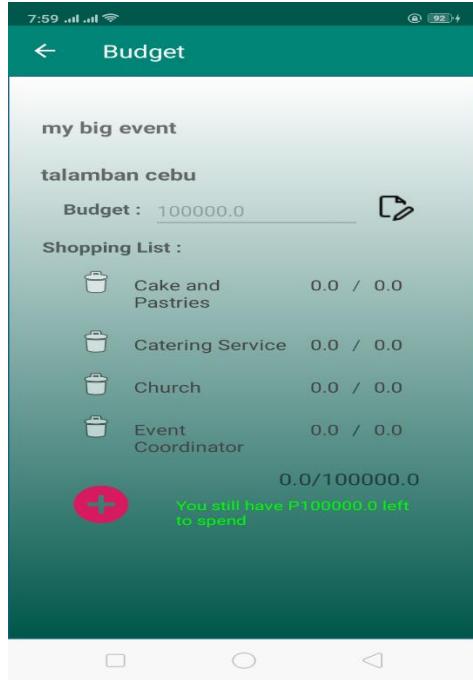


Figure 21: **Budget Summary**

Figure 21 shows the budget summary for a specific event created by the event organizers/clients. It shows the event details and by clicking on the item categories, they are able to browse the shops. Once the event organizer/client has chosen an item in a specific item category, the cost of that item which is the actual budget spent is placed on the left side of the forward slash symbol so that the event organizers/clients is able to compare the set budget with the actual budget. If user type is an event organizer, the name of the event organizer's client appears in the budget summary user interface.

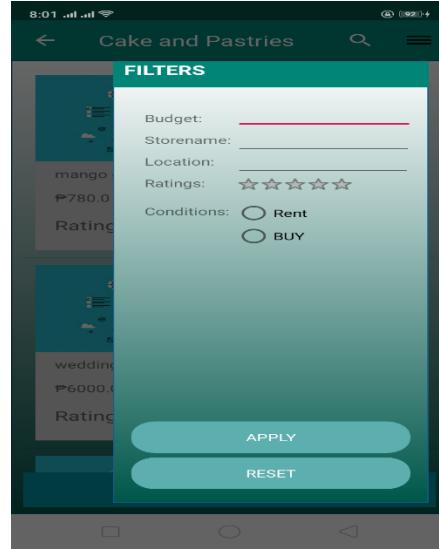


Figure 22: Search Filter

After the item categories have been finalized, browsing for items to purchase then follows. Figure 22 shows the page where the event organizers/clients can input the item preferences through the search filters to get more accurate and fitting results.

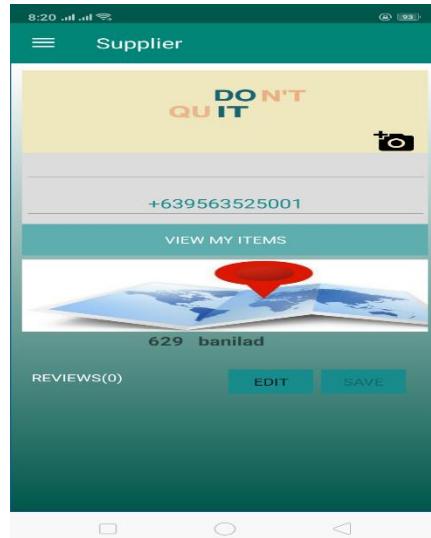


Figure 23: Supplier Details

Figure 23 shows the supplier profile. It contains the supplier information together with the supplier's ratings, reviews, and necessary details. It also contains the View Items button should the user want to browse the different items offered by the store/supplier.

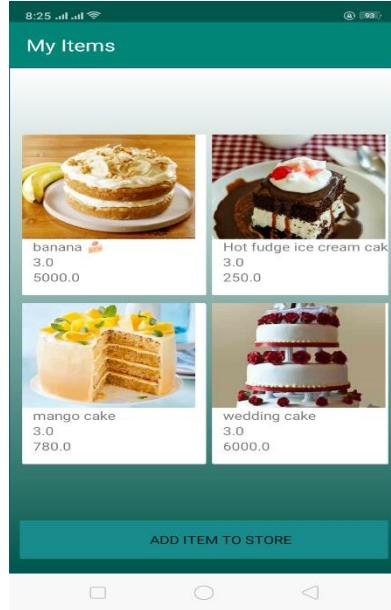


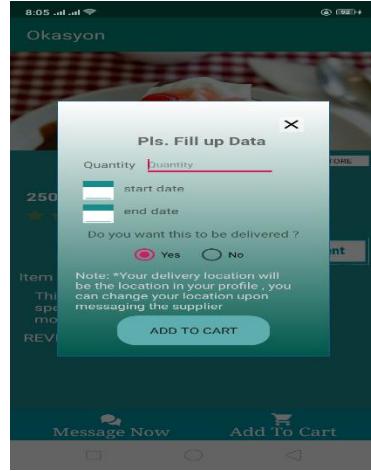
Figure 24: Item List

Figure 24 shows the list of items or services offered by a store/supplier. In order to purchase or rent these items, the user must view the profile of the items that they are interested in.



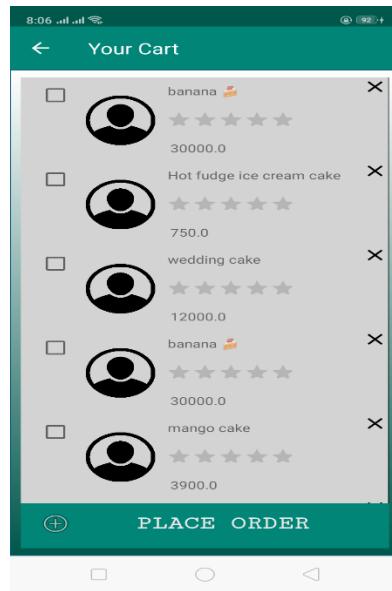
Figure 25: Item Details

Figure 25 shows the detailed information about a specific item. Should the event organizers/clients want to rent or purchase the item, they first have to add it to their cart and they may also opt to message the supplier offering the item should they have inquiries.



**Figure 26: Item Purchase Details**

Figure 26 shows the prompt/modal that is triggered after the event organizer/client clicks the Add to Cart button. The user needs to enter the purchasing details and specify if the user wishes to have the item/s delivered.



**Figure 27: Cart**

Figure 27 shows the items that the event organizer/client added to the cart. Should they want to purchase or rent these items, they must check the checkboxes of these items and then click the place order button to proceed to the transactions page.

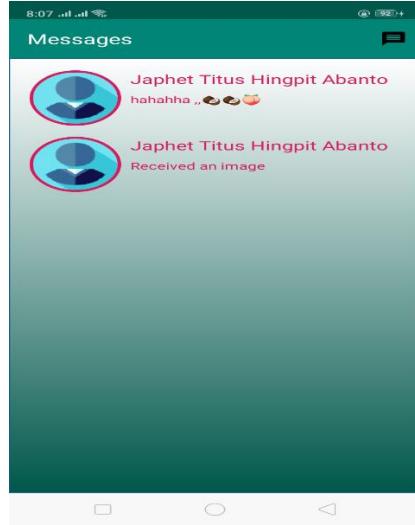


Figure 28: Chat Inbox

Figure 28 shows the messages that the event organizers/clients received and the messages that the event they sent to the suppliers. Through this page, the event organizers, clients, and suppliers can communicate and make things clearer with each other.

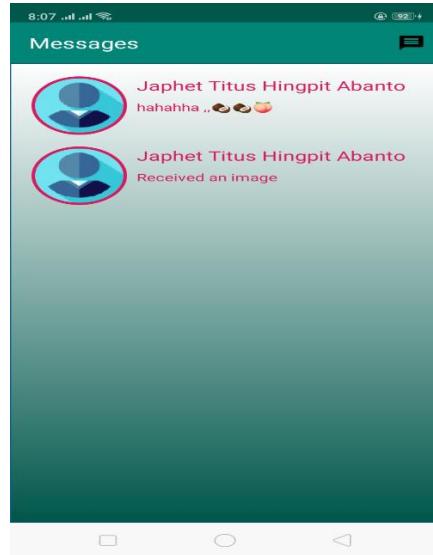


Figure 29: Chat Thread

Figure 29 shows the chat thread between the supplier and event organizer/client. Through this page, the event organizer/client can directly address concerns to the supplier and a better communication is facilitated in both parties.



Figure 30: **Transaction List**

After the event organizer/client clicks the place order button in the Cart page, a transaction is then created between the event organizers/clients and the suppliers. Figure 30 shows the list of transactions of the user with the transaction number, date when it was created, and the transaction status.

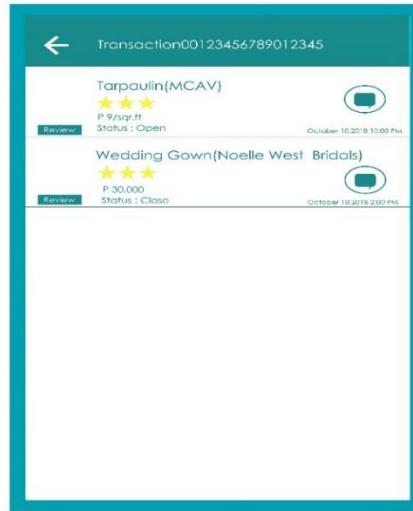


Figure 31: **Transaction Details**

Figure 31 shows the details of the transactions created by the event organizers/clients. It shows the items that belong to a specific transaction and also shows the rating, price, and status of the items.

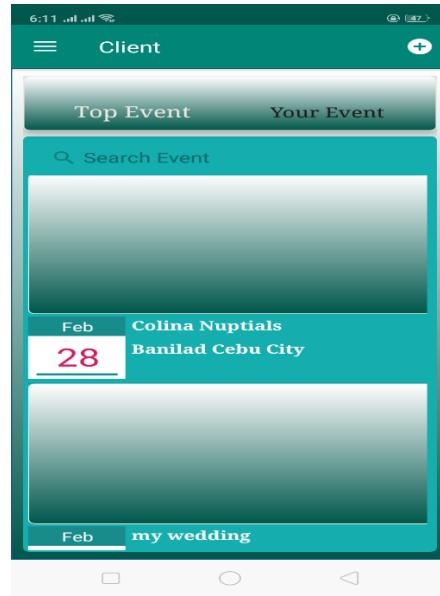


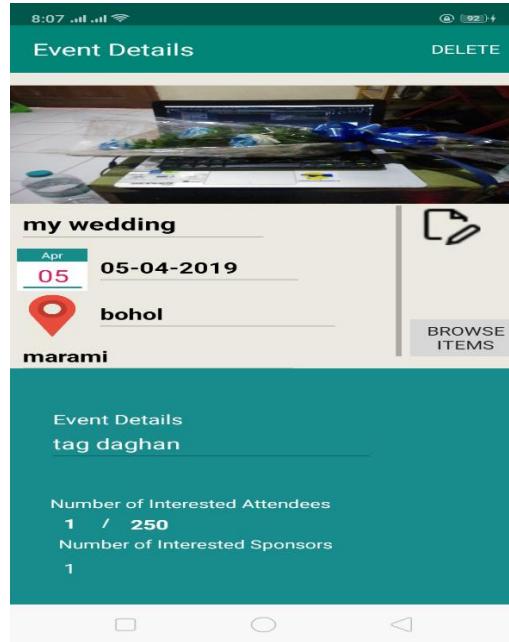
Figure 32: **Events Search**

Figure 32 enables the clients to search for events to attend or sponsor. The clients can enter keywords in the search box to search for a specific event or the client can set preferences such as the location or theme for more accurate results.



Figure 33: **Public Event Details (Sponsor/Attendee)**

Figure 33 shows the details of public events that the clients wish to attend or sponsor. It contains necessary information like the date, location, theme, or what not. It also contains a sponsor and attend event button. If a client wishes to sponsor an event, the event organizers are notified and they can communicate with each other through chat. On the other hand, if a client wants to attend an event by clicking the attend event button, a reminder in the calendar of the user is created and the event organizers are also notified.



**Figure 34: Public Event Details (Event Organizer)**

Figure 34 shows the public event details in the event organizer side. The event organizer can edit the event details and the number of attendees and sponsors can also be counted to give a rough estimate of how many are interested and willing to sponsor for the event.

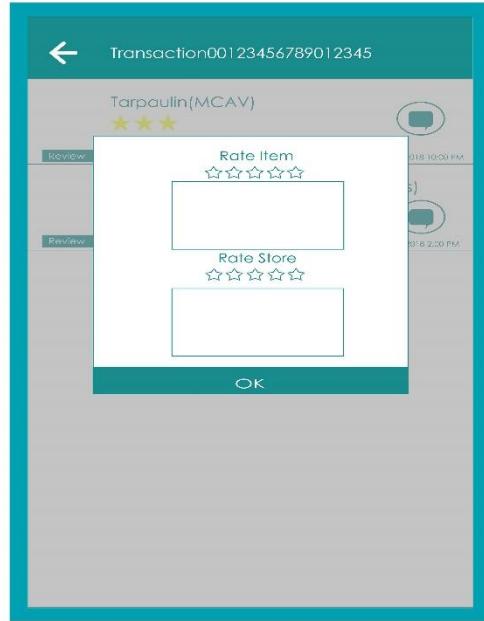


Figure 35: **Rating**

Figure 35 shows the UI where the event organizers/clients can rate either the store, the item, or both after a transaction has been closed

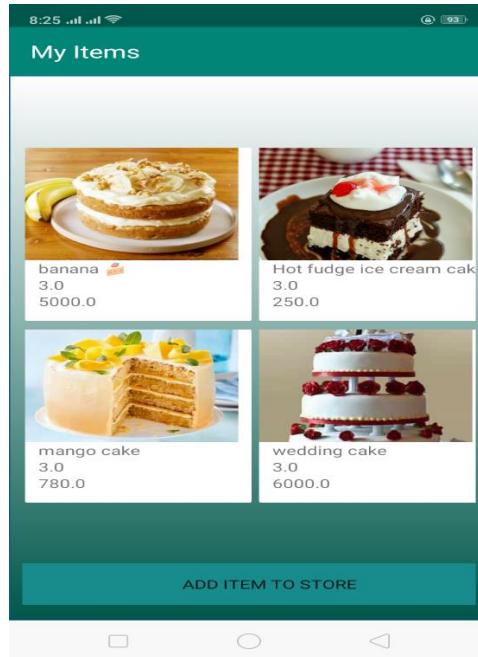


Figure 36: **Supplier Item List**

Figure 36 shows the list of items offered by the supplier. Through the Add Item button, a supplier can add more items to the supplier's profile.

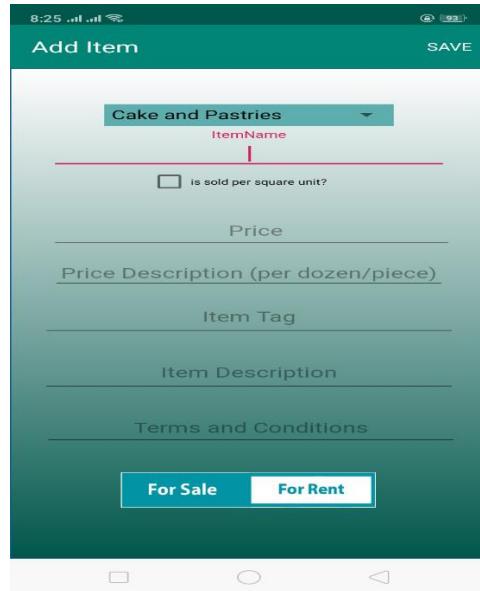


Figure 37: Add Item

Figure 37 enables the supplier to add more items to the store. The supplier inputs necessary information including aesthetic images that would look appealing to the customers. The supplier should also add item tags and descriptions about the item as well as the item category and how the items are sold may it be per square unit, per piece, or what not.

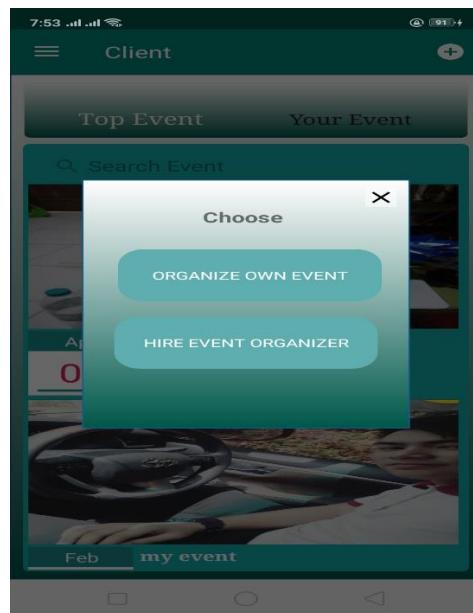


Figure 38: Hire Organizer

Figure 38 is the User Interface shows after the event details of the event created have been saved. This UI makes the clients choose if the client needs an event organizer or the clients are organizing the event on their own.



Figure 39 : **Find Event Organizer**

Figure 39 allows the user to search for event organizers should the client opt to hire one. The client can set preferences or use keywords to search for specific organizers.

## Story Board

The story board shows the sequence and flow of the User Interfaces in the perspective of the different users of the system. It gives visual logical flow of the entire system starting from the first UI that the user encounters.

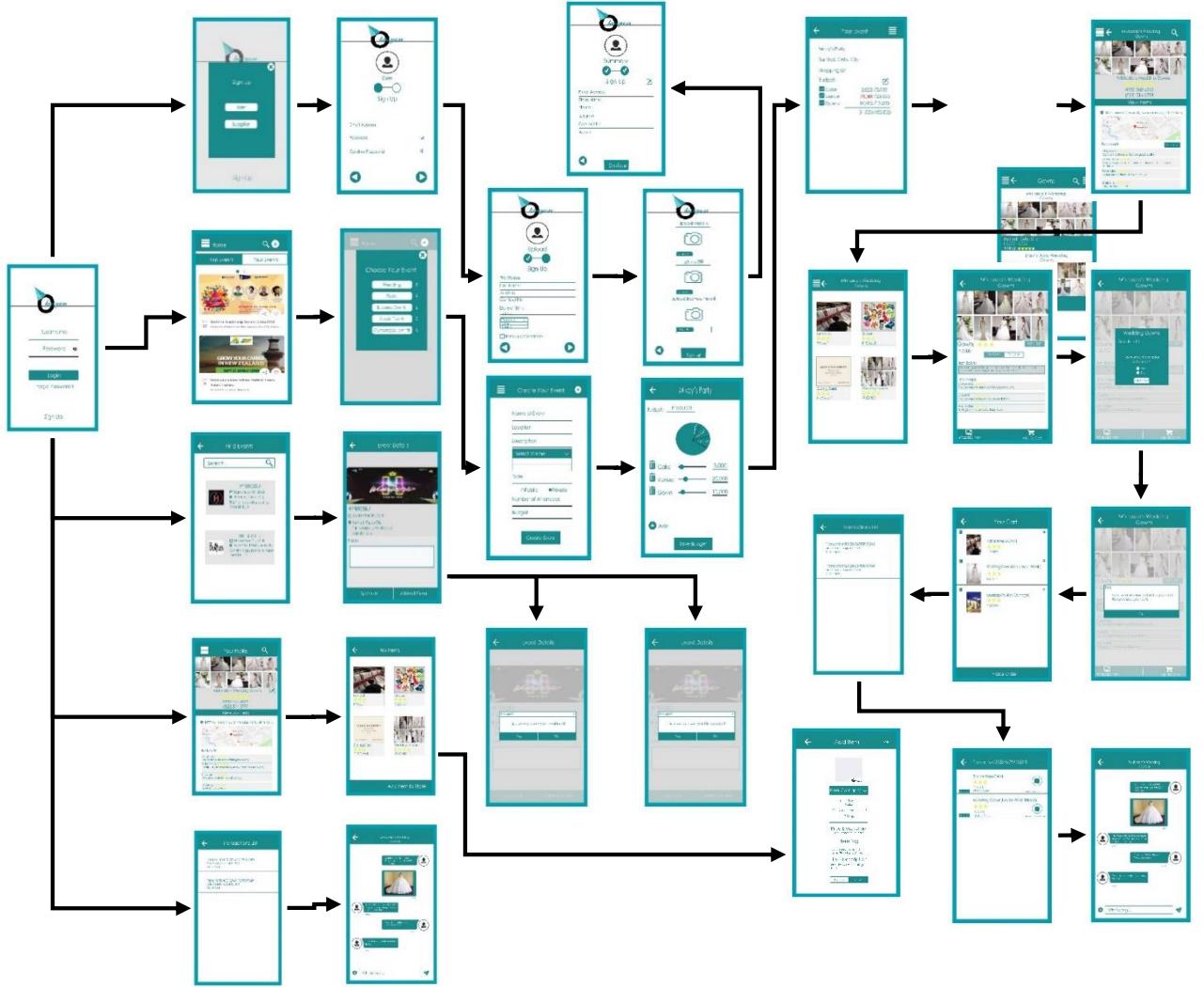


Figure 2: Users' Story Board

Figure 38 shows the storyboard of the user in the Okasyon app. It starts with the login page. If the user hasn't signed up yet, the user can sign up as event organizer or supplier. The user then enters the necessary information and uploads the necessary documents to complete the registration process. If a user has already signed up and if the user is registered as an event organizer, the user is dbrought to the homepage where there are event recommendations. The user can choose to create an event and choose the event category. The user then sets the budget for the event and browses the shops to buy or rent event products/services. The event organizer also known as regular user

can also choose to set preferences and search for events that they wish to attend or sponsor. The supplier can choose to view the items and add items to the store. The supplier then inputs the necessary information for the item like price, category, etc. Both the event organizers and suppliers can message each other should they have clarifications and concerns.

### **Database Design**

This section displays the different tables or entities in the proposed system. The database design shows how the entities are related to each other and the relationship that exists between these entities. It also shows the attribute of every entity and its role and purpose in the system.

Figure 3: **Database Table Relationship**

Figure 39 shows the database tables and their relationship with each other. The User table stores the common information for both types of users - the event organizer and the supplier. The Store table stores the information of the supplier's store like the store name, store description, document images, cover photos, and store location. The User\_Item\_Profile table keeps track of the types of items the event organizer keeps on buying which will later be used to analyze the event organizer's activity. The Attended\_Events and Sponsored\_Events table is for the events that a user attends or sponsors. It both has the user\_id and the event\_id. The Sponsors\_List and Attendees\_List table both contain the users who sponsored and attended a specific event.

Once an item is added by the user to the cart, it is added in the Cart\_Items group. Once these items will be bought/rented the items will be added in the Cart\_Group table which will serve as a reference to the Transaction table. The Transaction\_Store table on the other hand records the transactions of the supplier. It contains the supplier\_id, user\_id, status, order\_cost, and other necessary information.

The Event table contains the information of the events created both public and private. Every event has an event category stored in the Event\_Category table and every event category has default item categories stored in the Default\_Event\_Item\_Category. The Custom\_Event\_Item\_Category is the table that stores the item categories for a created event should the event organizer wish to customize and edit the default item categories. The Item table contains the item details and every item belongs to an item category. An item also contains an item profile which are tags or keywords that can be associated with the item.

It also contains ratings and reviews which can be given by the users/event organizers. The Store\_Rating table also contains the ratings and reviews also done by the users/event organizers. Lastly, the notification table contains the user\_id the notification message and the transaction that triggered the notification.

### **Entity Relationship Diagram**

The ERD is a diagram that shows the different database tables represented as entities of the proposed system and their relationships with each other. It also contains the cardinality ratios of the entities.



**Figure 4: Entity Relationship Diagram**

Figure 40 shows that the User entity has a relationship with the entities User\_Item\_Profile, User\_Role, Attended\_Events, Spnsored\_Events, Sponsors\_List, Attendees\_List, Event, Transaction, Store, Store\_Rating, Item\_Rating. The entity Event also has a relationship with the entities Attended-Events, Sponsored\_Events, Sponsors\_List, Attendees\_List, Event\_Tag, Event\_Category, Cart\_Item, and Custom\_Event\_Item\_Category. The Entity Event\_Item\_Category has a relationship with Item Category and Custom\_Event\_Item\_Category has a relationship with Item\_Category. The entity Item has a relationship with Item\_Profile, Item\_Images, Item\_Rating, Cart\_Item, and Item\_Category. The Event\_Category entity also has a relationship with Default

### **Data Dictionary**

The data dictionary is a centralized repository of information about data such as meaning relationships to other data, origin, usage, and format. The details of each table are briefly described and self-explanatory.

Table 5.1

Users

Column Name	Data Type	Field Size	Null	Description
user_id	VARCHAR	28	Not Null	Unique ID of the user
user_first_name	VARCHAR	20	Not Null	Users first Name
user_last_name	VARCHAR	20	Not Null	Users Last Name
user_email	VARCHAR	30	Not Null	User's email or gmail account
user_password	VARCHAR	25	Not Null	User Password
user_address	VARCHAR	50	Not Null	Home address of the user
user_contact_no	Number		Not Null	Contact Number of the user (Landline)\Mobile)
user_birth_date	Date/Time		Not Null	Birthdate of the user

Table 5.2

## Users

<b>Column Name</b>	<b>Data Type</b>	<b>Field Size</b>	<b>Null</b>	<b>Description</b>
user_gender	VARCHAR	1	Not Null	Male or Female
user_profPic	VARCHAR	50	Not Null	URL of the thumbnail of the profile picture
user_imageID	VARCHAR	50	Not Null	URL of the image of the user's valid id

Table 5.1 and 5.2 shows the Users table which stores the login credentials and the details of the user entered during registration. This includes the user's unique id, which is auto-generated. The user's email address, and password in order to log into the application. The user's first name, last name, home address, contact number, birthdate and gender, which is represented by either M or F. The user's role, which can be either O, or S. The user's profile picture, which is the URL to the picture in the Firebase storage, and a picture of a valid ID of a user, which is the URL to the picture in the Firebase storage.

Table 6

## User\_Role

<b>Column Name</b>	<b>Data Type</b>	<b>Field Size</b>	<b>Null</b>	<b>Description</b>
userRole_id	VARCHAR	1	Not Null	Unique ID of the Users Role
userRole_desc	VARCHAR	9	Not Null	Role of the user

Table 6 shows the User Role table which stores the roles for each user in the system. The user's role id, which can be either O, or S, or C, and the description of the role, which is either SUPPLIER, or ORGANIZER, or CLIENT.

Table 7  
User\_Item\_Profile

<b>Column Name</b>	<b>Data Type</b>	<b>Field Size</b>	<b>Null</b>	<b>Description</b>
userItemProfile_user_id	VARCHAR	28	Not Null	Unique User Id
userItemProfile_attributes	VARCHAR	20	Not Null	attributes of the items bought by the user
userItemProfile_attributes_count	NUMBER		Not Null	Number of times that an item attribute is added to the user's item profile

Table 7 shows the item profile for the user, which is used to determine which items are recommended to the user. The user's ID, and the attributes of the items from previous transactions, such as Red, Super Hero, and Halloween, are in this table.

Table 8  
User\_Event\_Profile

<b>Column Name</b>	<b>Data Type</b>	<b>Field Size</b>	<b>Null</b>	<b>Description</b>
userEventProfile_user_id	VARCHAR	28	Not Null	Unique User Id
userEventProfile_attribute	VARCHAR	20	Not Null	themes of the events attended by the user (i.e. horror, beach, Hawaiian)
userEventProfile_attribute_count	NUMBER		Not Null	Number of times that an event attribute is added to the user's event profile

Table 8 shows the event profile for the user, which is used to determine which event are recommended to the user. The user's ID, and the tags of the event that the user has attended, such as Spooktober, Dance Party, and Halloween, are in this table.

Table 9  
Attended\_Events

Column Name	Data Type	Field Size	Null	Description
attendedEvents_user_id	VARCHAR	28	Not Null	User ID of the user that attended these events
attendedEvents_event_id	VARCHAR	28	Not Null	Unique ID of the event that the user attended

Table 9 shows the event attended by a user. This includes the user's ID, and the ID for the events.

Table 10  
Sponsored\_Event

Column Name	Data Type	Field Size	Null	Description
sponsoredEvents_user_id	VARCHAR	28	Not Null	ID of the user
sponsoredEvents_event_id	VARCHAR	28	Not Null	Unique ID of the events

Table 10 shows the events that a user has sponsored. This includes the user's ID, and the ID for the events.

Table 11.1

## Event

Column Name	Data Type	Field Size	Null	Description
event_id	VARCHAR	28	Not Null	Unique id for this event
event_creator_id	VARCHAR	28	Not Null	User id of the creator of this event
event_client_id	VARCHAR	28	Not Null	User id of the client of this event
event_category_id	VARCHAR	28	Not Null	ID that shows which event category this event belongs to
event_date	Date/Time		Not Null	Date when the event will be held
event_location	VARCHAR	100	Not Null	Location where the event will be held
event_num_of_attendees	Number		Not Null	Number of attendees for the event, default value 1

Table 11.2

Event (cont.)

Column Name	Data Type	Field Size	Null	Description
event_num_of_sponsors	Number		Not Null	Number of sponsors for the event, default value 1
event_budget_spent	Currency		Not Null	Total amount spent after shopping
event_set_budget	Currency		Not Null	Projected budget set by the user
event_picture	VARCHAR	50	Not Null	URL to the banner or picture for the event
event_description	VARCHAR	50	Null	
event_isPrivate	Boolean		Not Null	Boolean value

Table 11.1 and 11.2 shows the Event table which stores the details of the events that are created by the organizer. This includes the unique ID of the event, which is auto-generated. This table also includes the ID of the user who created this event, the name of the event, the ID of the event category, the date of the event, the location which the event is being held, the number of attendees, the number of sponsors, the amount of money spent on an event, the budget for the event, a picture of the event, which is the URL to the picture in the Firebase storage. As well as the description of the event, and a Boolean value if the event is public or private.

Table 12  
Attendees\_List

<b>Column Name</b>	<b>Data Type</b>	<b>Field Size</b>	<b>Null</b>	<b>Description</b>
attendeesList_event_id	VARCHAR	28	Not Null	Unique ID of the event
attendeesList_attending_users_id	VARCHAR	28	Not Null	User ID of the users that will attend or have attended these event

Table 12 shows the users that will or have attended an event. The creator of the event is automatically added to this table. This includes ID of the event, and the ID of users.

Table 13  
Sponsors\_List

<b>Column Name</b>	<b>Data Type</b>	<b>Field Size</b>	<b>Null</b>	<b>Description</b>
sponsorsList_event_id	VARCHAR	28	Not Null	ID of the event
sponsorsList_sponsors_user_id	VARCHAR	28	Not Null	Unique user ID of the sponsors

Table 13 shows the users that have sponsored this event. The creator of the event is automatically added to this table. This includes ID of the event, and the ID of users.

Table 14  
Event\_Category

<b>Column Name</b>	<b>Data Type</b>	<b>Field Size</b>	<b>Null</b>	<b>Description</b>
eventCategory_id	VARCHAR	28	Not Null	Unique id of this event category
eventCategory_name	VARCHAR	20	Not Null	Name of the event category

Table 14 shows the different categories for the events. This includes the unique id of the category, and the name of the category, such as Weddings, and Birthday.

Table 15  
Event\_Profile

<b>Column Name</b>	<b>Data Type</b>	<b>Field Size</b>	<b>Null</b>	<b>Description</b>
eventProfile_event_id	VARCHAR	28	Not Null	Unique id of the event
eventProfile_attribute	VARCHAR	28	Not Null	Tags
eventProfile_attribute_weight	Number		Not Null	Weight of the attribute

Table 15 shows the tags for each event. this includes the ID of the event, and the attributes for the events, such as Spooktober, Dance Party, and Halloween, and the weight for each attribute.

Table 16

## Default\_Event\_Item\_Category

Column Name	Data Type	Field Size	Null	Description
deit_event_category_id	VARCHAR	28	Not Null	ID that shows which event category these items belong to
deit_item_category_id	VARCHAR	28	Not Null	ID that shows which item categories belong to this event

Table 16 shows which item categories belong to which event categories. This includes the event category ID, and the item category ID. This table is only used during the creation of an event to show the common items used in an event category.

Table 17

## Custom\_Event\_Item\_Category

Column Name	Data Type	Field Size	Null	Description
ceic_event_id	VARCHAR	28	Not Null	Unique ID of the event
ceic_item_category_id	VARCHAR	28	Not Null	Unique item category ID that shows which item categories belong to this event
ceic_item_set_budget	Currency		Not Null	budget assigned to this item category
ceic_item_actual_budget	Currency		Null	actual cost of the items in this item category

Table 17 shows which item categories belong to an event. This includes the event ID, and the item category ID, the set budget, and the actual budget.

Table 18

Store

Column Name	Data Type	Field Size	Null	Description
store_id	VARCHAR	28	Not Null	Unique ID of the store
store_owner_ID	VARCHAR	28	Not Null	Unique user id of the owner
store_store_name	VARCHAR	20	Not Null	Name of the store
store_description	VARCHAR	200	Not Null	a short description of the store
store_cover_photo	VARCHAR	50	Not Null	URL to the store's cover photo in the storage
store_business_permit_picture	VARCHAR	50	Not Null	URL to the store's business permit photo
store_BIR_picture	VARCHAR	50	Not Null	URL to the store's BIR photo
store_location	VARCHAR	50	Not Null	Location of the store

Table 18 contains the details about a store in our system. This table contains the ID of the store, the user ID of the owner, the name of the store, a description of the store, a photo of the business, a photo of the business permit, and a photo of the BIR document, and the location of the store.

Table 19

## Items

Column Name	Data Type	Field Size	Null	Description
item_id	VARCHAR	28	not Null	Unique ID of the item
item_store_id	VARCHAR	28	not Null	ID of the store the sells the item
item_name	VARCHAR	20	not Null	Name of the item
item_description	VARCHAR	200	not Null	Detailed description of the item
item_price	Currency		not Null	Price of the item
item_for_sale	BOOLEAN		not Null	Boolean value used to determine if the item is for sale or for rent
item_category_id	VARCHAR	28	not Null	ID of the item category
item_is_per_sqr_unit_of_measurement	BOOLEAN		not Null	Used to determine if the item is sold by length
item_image_Thumbnail	VARCHAR	50	not Null	URL to the selected thumbnail of the item

Table 19 shows the detail for the items sold in the stores in the system. This table contains the automatically generated ID of the item, the store ID, the item name, item description, the price of the item, a Boolean value that determines if the item is for sale or for rent, the ID of the item category that the item belongs to, the ID to an image table containing the URLs of the photographs

of the item, a Boolean value used to determine if the item is sold by length, and a URL to the thumbnail of the item.

Table 20

Item\_Profile

Column Name	Data Type	Field Size	Null	Description
itemProfile_item_id	VARCHAR	28	Not Null	Unique ID of the item
itemProfile_attribute	VARCHAR	20	Not Null	Attributes of the item
itemProfile_attribute_weight	Number		Not Null	Weight of the attribute

Table 20 shows the profile for an item, which is used to when determining if the item should be recommended to a user. The table contains the item's ID, and the attributes of the item, and the tf-idf weight of the attribute.

Table 21

Item\_Images

Column Name	Data Type	Field Size	Null	Description
itemImages_item_id	VARCHAR	28	Not Null	Unique ID of the item
itemImages_images_url	VARCHAR	50	Not Null	Unique URL to the image of the item in the firebase storage

Table 21 shows the URL(s) for the images of an item. The table contains the ID of the item, and the URL for the image of the item.

Table 22

Item\_Category

Column Name	Data Type	Field Size	Null	Description
itemCategory_id	VARCHAR	28	Not Null	Unique id for the item category
itemCategory_name	VARCHAR	20	Not Null	Name of the item category

Table 22 shows the different categories for the items. This includes the unique ID of the item category, and the name of the category, such as Weddings, and Birthday.

Table 23

Store\_Rating

Column Name	Data Type	Field Size	Null	Description
storeRating_store_id	VARCHAR	28	Not Null	Unique ID of the store
storeRating_star_rating	NUMBER		Not Null	Number of stars for the store
storeRating_review	VARCHAR	200	Not Null	Written review of the store
storeRating_reviewer_id	VARCHAR	28	Not Null	Unique id of the user reviewing the store

Table 23 shows the reviews for each store by the users in the system. This includes the unique ID of the store, the number of stars or the score of the store that range from 0 to 5, the review of a user, and the unique ID of the user.

Table 24

## Item\_Rating

Column Name	Data Type	Field Size	Null	Description
itemRating_item_id	VARCHAR	28	Not Null	Unique id of the item
itemRating_star_rating	NUMBER	28	Not Null	number of stars for the item
itemRating_review	VARCHAR	200	Not Null	Written review of the item
itemRating_reviewer_id	VARCHAR	28	Not Null	Unique id of the user reviewing the item

Table 24 shows the reviews for each item by the users in the system. This includes the unique ID of the item, the number of stars or the score of the store that range from 0 to 5, the review of a user, and the unique ID of the user.

Table 25

## Cart\_Group

Column Name	Data Type	Field Size	Null	Description
cartGroup_group_id	VARCHAR	28	Not Null	This ID shows which transaction this group belong to this group
cartGroup_cart_item_id	VARCHAR	28	Not Null	This shows the unique item id to reference 'Cart Items' table

Table 25 shows the items in a cart. This include a unique transaction ID, and the unique cart items ID.

Table 26

## Cart\_Items

Column Name	Data Type	Field Size	Null	Description
cartItem_item_cart_id	VARCHAR	28	Not Null	Unique ID of the items in the cart
cartItem_item_id	VARCHAR	28	Not Null	Unique id of the item
cartItem_event_id	VARCHAR	28	Not Null	ID of the event
cartItem_item_count	Number		Not Null	The amount of this item being ordered, default value 1
cartItem_order_cost	Currency		Not Null	Cost of this item(s), item_price * item_Count
cartItem_status	VARCHAR	7	Null	Shows the status of the item, null by default, change to pending when it is in CART GROUP ID
cartItem_rent_start_date	Date/Time		Null	Start date that the item will be rented
cartItem_rent_end_date	Date/Time		Null	End date that the item will be rented
cartItem_delivery_location	VARCHAR	50	Null	if not null, deliver to the event's address

Table 26 shows the details of the item added to the user's cart. This includes a unique item cart ID, unique item ID, the event that the item belongs to, the amount of the item, the cost of the

order, the status of the order, the start date of the rent, the end date of the rent, and the delivery location.

Table 27

Transaction

Column Name	Data Type	Field Size	Null	Description
transaction_id	VARCHAR	28	Not Null	Unique id of the transaction
transaction_cart_group_id	VARCHAR	28	Not Null	Unique ID of the cart group
transaction_status	VARCHAR	4	Not Null	Status of the transaction, default value is 'open', change to 'close' after order or service is rendered
transaction_user_id	VARCHAR	28	Not Null	Unique user id of the buyer
transaction_date	Date/Time		Not Null	Date that the transaction is created

Table 27 shows the transaction of a user. This includes a unique transaction ID, a unique cart group ID, the status of the transaction, the user ID of the buyer, and the date that the transaction is made.

Table 28.1  
Transaction\_for\_Supplier

Column Name	Data Type	Field Size	Null	Description
transactionStore_transaction_id	VARCHAR	28	Not Null	Unique transaction ID
transactionStore_store_id	VARCHAR	28	Not Null	Unique store id of the store which the item is sold
transactionStore_item_id	VARCHAR	28	Not Null	Unique id of the transaction
transactionStore_buyer_id	VARCHAR	28	Not Null	Unique user id of the buyer
transactionStore_status	VARCHAR	4	Not Null	status of the transaction, default value is 'open', change to 'close' after order or service is rendered
transactionStore_date	Date/Time		Not Null	date that the transaction is received
transactionStore_item_count	Number		Not Null	the amount of this item being ordered, default value 1
transactionStore_order_cost	Currency		Not Null	cost of this item(s), item_price * item_Count
transactionStore_rent_start_date	Date/Time		Null	start date that the item will be rented
transactionStore_rent_end_date	Date/Time		Null	end date that the item will be rented

Table 28.2

Transaction\_for\_Supplier cont'd

Column Name	Data Type	Field Size	Null	Description
transactionStore_delivery_location	VARCHAR	50	Null	if not null, deliver to address

Table 28.1 and 28.2 shows the transaction of a supplier that is sent through the notifications. This includes a unique transaction ID, the user ID of the supplier, the user ID of the buyer, the status of the transaction, the date that the transaction is made, the amount of the item, the cost of the transaction, cost of the transaction, the start date of the rent, the end date of the rent, and the delivery location.

Table 29

Notification

Column Name	Data Type	Field Size	Null	Description
notification_id	VARCHAR	28	Not Null	Unique ID of the notification
notification_reciever_id	VARCHAR	28	Not Null	The ID of the user which the notification is from
notification_sender_id	VARCHAR	28	Not Null	The ID of the user which the notification is for
notification_message	VARCHAR	200	Not Null	The message of the notification
notification_transactionID	VARCHAR	28	Null	Transaction ID

Table 29 shows the notification details sent by the system to a user. This includes the unique id of the notification, the sender's user ID, the receiver's user ID, the message, and a transaction ID.

Table 30

Message

Column Name	Data Type	Field Size	Null	Description
message_id	VARCHAR	28	Not Null	Unique id of the message
message_sender_id	VARCHAR	28	Not Null	User id of the sender of the message
message_message_text	VARCHAR	200	Not Null	Content of the message being sent
message_receiver_id	VARCHAR	28	Not Null	User id of the receiver of the message
Message_time_received	DATETIME		Not Null	The time the receiver received the message

Table 30 shows the details of a message sent by a user to another user. This includes a unique and auto-generated ID of the message, the user ID of the sender, the message, the user ID of the receiver, and the time the message was received.

## Network Design

Network design is a category of systems design that deals with data transport mechanisms (The Gale Group Inc, 2002). It refers to the planning of the implementation of a computer network infrastructure and involves evaluating, understanding and scoping the network to be implemented (Techopedia Inc, 2018). The network design includes the network topology of the entire system and shows how the devices are connected in the network.

## Network Topology

Network topology refers to the physical or logical layout of a network. It defines the way different nodes are placed and interconnected with each other (Techopedia, 2018). The network topology shows how the devices are connected to each other and the path where the packets are sent back and forth.

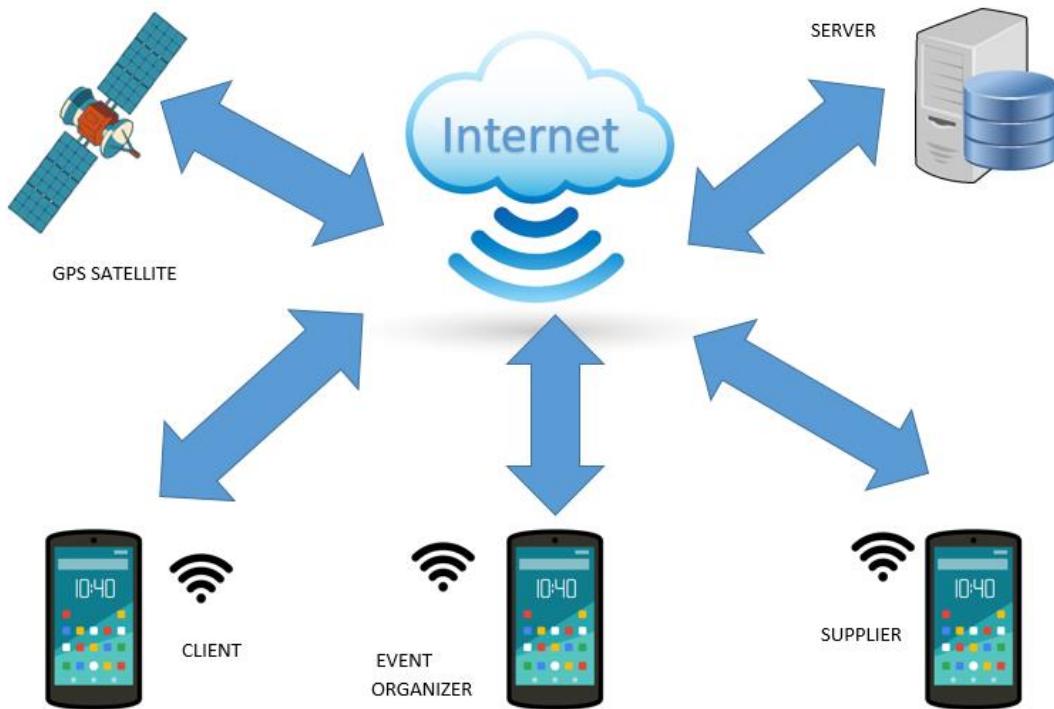


Figure 5: **Okasyon Network Topology**

Figure 41 shows how the devices are connected and how they communicate with each other. All of Okasyon's data are stored in a server in the cloud and in order for the devices to retrieve and insert data to the server, they will have to go through the internet via Wi-Fi. The android devices will also have to go through the internet to communicate with each other. The devices will

also need internet access to use the application's functionalities that will make use of the GPS satellite.

## **Development/Construction/Build Phase**

This section marks the start of the implementation of the proposed project. It contains the necessary technologies to complete the system and the functionalities of the system broken down into modules which will serve as guide for the implementation process. It also contains the software and hardware specification for the project and the output of this phase will serve as input in the implementation process.

### **Technology Stack Diagram**

The technology stack diagram shows the necessary technologies in order to complete the entire proposed system. It separates the technologies needed depending on where these technologies will be used may it be in developing the mobile, application, the server-side of the application, or for future development.

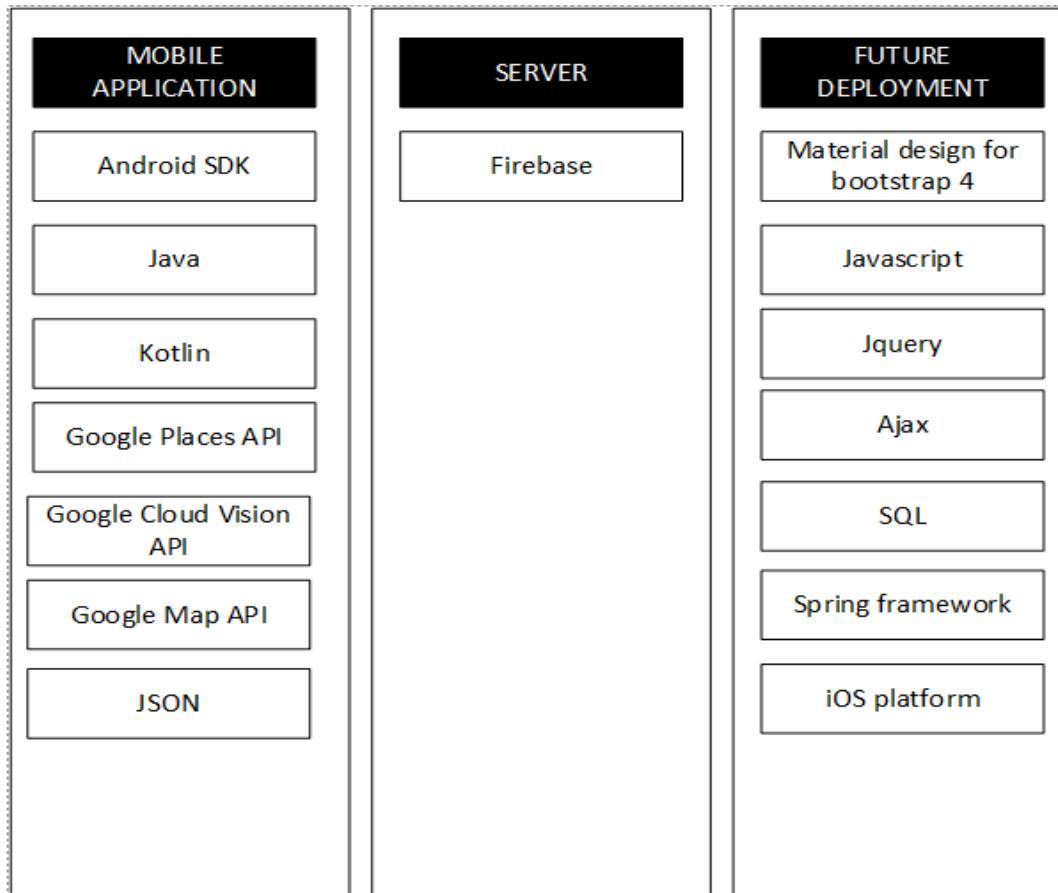


Figure 6: **Technology Stack Diagram**

In developing the mobile application Okasyon, the researchers used several technologies and languages. First, the proponents used the Android Software Development Kit which contains sample projects with source codes, emulator, required libraries and a set of development tools to develop the application for the Android Platform (Vangie Beal, 2018). The proponents also used Java and Kotlin for the back-end programming of the application. Kotlin was used because there are methods or processes better, easier, and faster done through the language. Java on the other hand was used because it's the language the proponents are most familiar with.

In regards to the APIs, the researchers used Google Places which can automatically search for nearby places/stores that offer event products/services and recommend them to the users. The Google Maps API on the other hand will be used to give real-time directions to the users should they wish to go to the stores physically and the Google Cloud Vision API will be used to perform the Optical Character Recognition and check the documents like IDs and Business Permits uploaded by both the users and suppliers and make sure that the inputted information will match that of the documents. The proponents also needed JSON (JavaScript Object Notation) because the values that Google Places, Google Maps, and Google Vision will be returning to the application are in this format.

For the Server side, the proponents used Firebase which offers online storing of unstructured data through the real time database. They chose firebase because it is fast and simple to use compared to the other server-side technologies.

For future development, the proponents would like to develop a web counterpart of the mobile application to increase its market as well as a cross-platform for iOS, a mobile operating system designed by Apple Inc. so that not only users with android devices can use our app but also those with Apple devices.

## **Program Specification**

The program specification lists the functionalities of the system broken down into modules. It also shows every team member's assignment on what module to work on. Through the program specification, what the system is expected to do is made clear and this serves as an input to the implementation phase of the proposed system.

Table 31.1

**LIST OF MODULES**

<b>Programmer</b>	<b>Modules</b>	<b>Supplier</b>	<b>Event</b>
	<b>Register</b>		<b>Organizer</b>
Japhet Titus Abanto	1. Register Event Organizer/Sponsor		*
	3.Register Supplier	*	
	No. of Points (1pont per module per user)	1	1
	<b>Log-In</b>		
Mikhaelo Nheal Bongo	1.Login Event Organizer/Sponsor		*
	3.Log-in Supplier	*	
	No. of Points (1pont per module per user)	1	1
	<b>Profile Management</b>		
Mikhaelo Nheal Bongo	1.View and Edit Profile	*	*
	2.View and Edit Store Info	*	
	3. View and Edit Item info	*	
	No. of Points (1pont per module per user)	1	1
	<b>Validation</b>		
Marc Lennard Colina	1. Validate Documents through OCR	*	*
	2. ID image recognition	*	*
	No. of Points (1pont per module per user)	1	1
	<b>Events Creation</b>		
Marc Lennard Colina	1.Create Event		*
	2.Set Event Items Budget		*
	3.View Events Created		*

	4. Update Events Created		*
	5. Set Event Tags		*
	6. Promote Event		*
No. of Points (1 point per module per user)			1
Mikhayl Joshua Abellanosa	<b>Browse Items</b>		
	1. Set Preferences		*
	2. View Store		*
	3. View Item Info		*
	4. Get Store Directions		*
	5. Web scraping API		*
No. of Points (1 point per module per user)			1
Marc Lennard Colina	<b>Buy Items</b>		
	1. Add item to cart		*
	2. Validate if Budget Set is Followed		*
	3. Rate Item		*
	4. Rate Store		*

Table 31.2

## LIST OF MODULES cont'd

	No. of Points (1pont per module per user)		1
Marc Lennard Colina	<b>Transaction</b>		
	1.Create Transaction		*
	2.Accept Transaction	*	
	3.Change Transaction Status	*	
	4.View Transactions	*	*
	No. of Points (1pont per module per user)	1	1
Japhet Titus Abanto	<b>Add Items to Store</b>		
	1.Add Item Info	*	
	2.Set Item Category	*	
	No. of Points (1pont per module per user)	1	
Mikhayl Joshua Abellanosa	<b>Events Search</b>		
	1.Set Preferences		*
	2.Attend Event		*
	3.Sponsor Event		*
	No. of Points (1pont per module per user)	1	
Mikhayl Joshua Abellanosa	<b>Messages</b>		
	1.Message Event Organizer	*	
	2.Message Supplier		*
	3.Message Sponsor		*
	No. of Points (1pont per module per user)	1	1

<b>Notification</b>			
Mikhayl Joshua Abellanosa0	1.Transaction Notification	*	*
	2.Message Notification	*	*
	3.Sponsors Notification		*
	4.Attendees Notification		*
	5. View Notification	*	*
No. of Points (1point per module per user)		1	1
Number of Modules per User (equals total no. of points per user)		Supplier : 8	Event Organizer : 11
Total Number of Modules		12	

Table 31.1 and 31.2 shows the different modules for the proposed system. It also contains the programmer assigned to every module. The modules of Okasyon include Register, Log-in, Profile Management, Validation, Events Creation, Browse Items, Buy Items, Transaction, Add Items to Store, Events Search, Messages, and Notification.

### **Testing/Quality Assurance Phase**

This section showcases the different testing levels used by the proponents to test the mobile application. It includes the unit, integration testing, alpha testing, and acceptance testing.

#### **Unit Testing**

Unit testing is a software development process in which the smallest testable parts of an application, called units, are individually and independently scrutinized for proper operation. It is also called component testing where the testing is done in every module.

Table 32.1  
UNIT TESTING – SUPPLIER APPLICATION

<b>Module Name</b>	<b>Unit Name</b>	<b>Date Tested</b>	<b>Test Case ID</b>	<b>Test Case Description</b>	<b>Expected Result</b>	<b>Actual Result</b>	<b>Remarks</b>
Login / Logout	Login	1/31/19	SL1	Valid Email /Gmail and Password	Successfully Logged In	Performed Expected Output	Passed
Login / Logout	Login	1/31/19	SL2	Valid Email/Gmail and Invalid Password	Displays Error Message	Performed Expected Output	Passed

Table 32.2  
UNIT TESTING – SUPPLIER APPLICATION CONT'D

<b>Module Name</b>	<b>Unit Name</b>	<b>Date Tested</b>	<b>Test Case ID</b>	<b>Test Case Description</b>	<b>Expected Result</b>	<b>Actual Result</b>	<b>Remarks</b>
Login / Logout	Login	1/31/19	SL3	Invalid Email/Gmail And Valid Password	Displays Error Message	Performed Expected Output	Passed
Login / Logout	Login	1/31/19	SL4	Invalid Email/Gmail and Invalid Password	Display Error Message	Performed Expected Output	Passed
Register	Sign Up	1/31/19	SR1	All fields are filled and Valid	Proceed To Next Step	Performed Expected Output	Passed

Register	Sign Up	1/31/19	SR2	All fields are filled but Invalid	Displays Error Message	Performed Expected Output	Passed
Register	Sign Up	1/31/19	SR3	Some fields are not filled	Displays Error Message	Performed Expected Output	Passed
Validation	Sign Up	1/31/19	SV1	Upload Valid Image and Perform OCR	Proceed to Summary	Performed Expected Output	Passed
Validation	Sign Up	1/31/19	SV2	Upload Invalid Image and Perform OCR	Displays Error Message	Performed Expected Output	Passed

Table 32.3

## UNIT TESTING – SUPPLIER APPLICATION CONT'D

Module Name	Unit Name	Date Tested	Test Case ID	Test Case Description	Expected Result	Actual Result	Remarks
Validation	Sign Up	1/31/19	SV3	Upload Valid Image and Perform Face Detection	Registered Successfully	Performed Expected Output	Passed
Profile Management	View Supplier Profile	1/31/19	SP1	Press View Profile Menu	Show profile with edit button	Performed Expected Output	Passed

Profile Management	Edit Supplier Profile	1/31/19	SP2	Update information by inputting valid information	Displays success message and updates information	Performed Expected Output	Passed
Profile Management	Edit Item	1/31/19	SP3	Update information by inputting valid information	Displays success message and updates information	Performed Expected Output	Passed
Transaction	Accept Transaction	1/31/19	ST1	Press the Accept button	The switch will turn on for the transaction status	Performed Expected Result	Passed
Transaction	Change Transaction Status	1/31/19	ST2	Press the switch button to on / off	The switch will determine the transaction status	Performed Expected Result	Passed

Table 32.4

## UNIT TESTING – SUPPLIER APPLICATION CONT'D

Module Name	Unit Name	Date Tested	Test Case ID	Test Case Description	Expected Result	Actual Result	Remarks
Transaction	View Transaction	1/31/19	ST3	Press the Transactions	Displays Supplier Transactions Made and its Status	Performed Expected Output	Passed

Add Items to Store	Add Item Info	1/31/19	SA1	Add information by inputting valid information	Displays success message and proceeds to uploading images	Performed Expected Output	Passed
Add Items to Store	Add Item Info	1/31/19	SA2	Add information by inputting In valid information	Displays Error Message	Performed Expected Output	Passed
Add Items to Store	Add Item Image	1/31/19	SA3	Upload Images for the Items	Image Successfully Added	Performed Expected Output	Passed
Add Items to Store	View Items		SA4	Press Item To View Details	Opens Intent and show Item Details	Performed Expected Output	Passed
Delete Items	Delete Item		SD1	Press Delete Button in Item Details	Pops-up confirmation to delete	Performed Expected Output	Passed

Table 32.5

## UNIT TESTING – SUPPLIER APPLICATION CONT'D

Module Name	Unit Name	Date Tested	Test Case ID	Test Case Description	Expected Result	Actual Result	Remarks
Messages	Message Event Organizer		SM1	Press Message Button	Open Message Thread	Performed Expected Result	Passed

Messages	Message Supplier		SM2	Press Message Button	Open Message Thread	Performed Expected Output	Passed
Notification	Transaction Notification		SN1	Client proceeds the supplier's item to transaction	Notification Pops-out in the supplier account	Performed Expected Output	Passed
Notification	Message Notification		SN2	Client sends message to supplier	Notification Pop out in the supplier account	Performed Expected Output	Passed
Notification	View Notification		SN3	Press the Notifications icon	Shows the details of the notification received	Performed Expected Output	Passed

Table 33.1  
UNIT TESTING – CLIENT AND ORGANIZER APPLICATION

<b>Module Name</b>	<b>Unit Name</b>	<b>Date Tested</b>	<b>Test Case ID</b>	<b>Test Case Description</b>	<b>Expected Result</b>	<b>Actual Result</b>	<b>Remarks</b>
Login / Logout	Login	1/31/19	COL 1	Valid Email /Gmail and Password	Successfully Logged In	Performed Expected Output	Passed
Login / Logout	Login	1/31/19	COL 2	Valid Email/Gmai 1 and Invalid Password	Displays Error Message	Performed Expected Output	Passed
Login / Logout	Login	1/31/19	COL 3	Invalid Email/Gmai 1 And Valid Password	Displays Error Message	Performed Expected Output	Passed
Login / Logout	Login	1/31/19	COL 4	Invalid Email/Gmai 1 and Invalid Password	Display Error Message	Performed Expected Output	Passed
Register	Sign Up	1/31/19	COR 1	All fields are filled and Valid	Proceed To Next Step	Performed Expected Output	Passed
Register	Sign Up	1/31/19	COR 2	All fields are filled but Invalid	Displays Error Message	Performed Expected Output	Passed
Register	Sign Up	1/31/19	COR 3	Some fields are not filled	Displays Error Message	Performed Expected Output	Passed

Table 33.2

## UNIT TESTING – CLIENT AND ORGANIZER APPLICATION

<b>Module Name</b>	<b>Unit Name</b>	<b>Date Tested</b>	<b>Test Case ID</b>	<b>Test Case Description</b>	<b>Expected Result</b>	<b>Actual Result</b>	<b>Remarks</b>
Register	Sign Up	1/31/19	COR 4	Upload Valid Image and Perform OCR	Proceed to Summary	Performed Expected Output	Passed
Register	Sign Up	1/31/19	COR 5	Upload Invalid Image and Perform OCR	Displays Error Message	Performed Expected Output	Passed
Register	Sign Up	1/31/19	COR 6	Upload Valid Image and Perform Face Detection	Registered Successfully	Performed Expected Output	Passed
Validation	Sign Up	1/31/19	COV 1	Upload Valid Image and Perform OCR	Proceed to Summary	Performed Expected Output	Passed
Validation	Sign Up	1/31/19	COV 2	Upload Invalid Image and Perform OCR	Displays Error Message	Performed Expected Output	Passed
Validation	Sign Up	1/31/19	COV 3	Upload Valid Image and Perform Face Detection	Registered Successfully	Performed Expected Output	Passed

Table 33.3

## UNIT TESTING – CLIENT AND ORGANIZER APPLICATION

<b>Module Name</b>	<b>Unit Name</b>	<b>Date Tested</b>	<b>Test Case ID</b>	<b>Test Case Description</b>	<b>Expected Result</b>	<b>Actual Result</b>	<b>Remarks</b>
Profile Management	View Profile	1/31/19	COP1	Press View Profile Menu	Show profile with edit button	Performed Expected Output	Passed
Profile Management	Edit Profile	1/31/19	COP2	Update information by inputting valid information	Displays success message and updates information	Performed Expected Output	Passed
Events Creation	Select Category of Events	2/5/19	COE 1	Press Create Event Button	Pop Up Event Categories of Events	Performed Expected Output	Passed
Events Creation	Set Event Items Budget		COE 2	Input budget per Item	Save Budget per Item and Displays success message	Performed Expected Output	Passed
Events Creation	View Event Created	2/3/19	COE 3	Press the View Button	Displays the Events Details	Performed Expected Output	Passed
Events Creation	Update Event		COE 4	Press the Edit Button, Input updated information	Saves updated information And Success message appears	Performed Expected Output	Passed

Table 33.4

## UNIT TESTING – CLIENT AND ORGANIZER APPLICATION

<b>Module Name</b>	<b>Unit Name</b>	<b>Date Tested</b>	<b>Test Case ID</b>	<b>Test Case Description</b>	<b>Expected Result</b>	<b>Actual Result</b>	<b>Remarks</b>
Events Creation	Delete Event		COE 5	Press the Delete Button	Delete Event and go back to client/organizer homepage	Performed Expected Output	Passed
Events Creation	Promote Event		COE 7	Press Public Radio Button for event to be promoted	Event gets displayed in Top Events list	Performed Expected Output	Passed
Browse Items	Set Preferences		COB 1	Press the search button and input preferences	Display selected items that passed the filters set	Performed Expected Output	Passed
Browse Items	View Store		COB 2	Press store name TextView in Item Details	Proceed to the store profile of store clicked	Performed Expected Output	Passed
Browse Items	View Item Info		COB 3	Press the item image in browse items page	Displays detailed information of the item	Performed Expected Output	Passed
Browse Items	Store Direction		COB 4	Press the get directions button in the store details page	Opens google maps and shows real time directions	Performed Expected Output	Passed

Table 33.5

## UNIT TESTING – CLIENT AND ORGANIZER APPLICATION

<b>Module Name</b>	<b>Unit Name</b>	<b>Date Tested</b>	<b>Test Case ID</b>	<b>Test Case Description</b>	<b>Expected Result</b>	<b>Actual Result</b>	<b>Remarks</b>
Browse Items	Web Scraping API		COB 5	Press get nearby places button	Shows list of stores gathered from the web	Performed Expected Output	Passed
Buy Items	Add Item to Cart		COB 1	Press the selected item and press add to cart button	Displays success message and proceeds to Your Cart page	Performed Expected Output	Passed
Buy Items	Validate the Budget		COB 2	Buy item that exceeds the budget	Make budget set TextView is colored red	Performed Expected Output	Passed
Buy Items	Rate Item		COB 3	Press the Rate the Button for Item	Validates if transaction exists and then shows rating bar	Performed Expected Output	Passed
Buy Items	Rate Store		COB 4	Press the Rate Button for Store	Validates if transaction exists and then shows rating bar	Performed Expected Output	Passed
Transaction	Create Transaction		COT 1	Select Item to Be transacted	Opens Transactions page with item selected	Performed Expected Output	Passed

Table 33.6

## UNIT TESTING – CLIENT AND ORGANIZER APPLICATION

<b>Module Name</b>	<b>Unit Name</b>	<b>Date Tested</b>	<b>Test Case ID</b>	<b>Test Case Description</b>	<b>Expected Result</b>	<b>Actual Result</b>	<b>Remarks</b>
Transaction	View Transaction		COT 2	Press the Transaction Button	Displays list of transactions	Performed Expected Output	Passed
Event Search	Set Preference		COE 1	Input preferences for events	Displays events that fit the filters set	Performed Expected Output	Passed
Event Search	Attend Event		COE 2	Press the Attend Button	Displays Success Message	Performed Expected Output	Passed
Event Search	Sponsor Event		COE 3	Press the Sponsor Button	Displays Success Message	Performed Expected Output	Passed
Messages	Message Event Organizer		COM 1	Press the message button and input message	Opens a message thread	Performed Expected Output	Passed
Messages	Message Supplier		COM 2	Press the message button	Opens a message thread	Performed Expected Output	Passed

Table 33.6

## UNIT TESTING – CLIENT AND ORGANIZER APPLICATION

<b>Module Name</b>	<b>Unit Name</b>	<b>Date Tested</b>	<b>Test Case ID</b>	<b>Test Case Description</b>	<b>Expected Result</b>	<b>Actual Result</b>	<b>Remarks</b>
Messages	Message Sponsor		COM 3	Press the message button	Opens a message thread	Performed Expected Output	Passed
Notification	Transaction Notification		CON 1	Proceed an item to transaction	Send notification to the supplier of the item	Performed Expected Output	Passed
Notification	Message Notification		CON 2	Supplier Messages Client	Client Receives notifications	Performed Expected Output	Passed
Notification	Sponsors Notification		CON 3	User clicks sponsor event button	Event organizer receives notifications	Performed Expected Output	Passed
Notification	Attendees Notification		CON 4	User clicks sponsor attend event button	Event organizer receives notifications	Performed Expected Output	Passed
Notification	View Notification		CON 5	Press the received notification	Displays the details of the notification received.	Performed Expected Output	Passed

Table 34  
UNIT TESTING - ORGANIZER APPLICATION

<b>Module Name</b>	<b>Unit Name</b>	<b>Date Tested</b>	<b>Test Case ID</b>	<b>Test Case Description</b>	<b>Expected Result</b>	<b>Actual Result</b>	<b>Remarks</b>
Events Creation	Accept Booking		OE1	Client hires organizer	Organizer receives notification and either accepts or declines booking	Performed Expected Output	Passed

## Integration Testing

Integration testing is a level of software testing where individual units are combined and tested as a group. The purpose of this level of testing is to expose faults in the interaction between integrated units. The table below shows the integration of two modules and if run together, would yield successful results.

Table 35

INTEGRATION TESTING TABLE

Test Case ID	Module 1	Integration Process	Module 2	Precondition	Result	Remark
101	Login/Logout (Supplier)	Login with valid credentials	Add Item to Store (Supplier)	Supplier is logged-in	Performed Expected Result	Passed
102	Login/Logout (Client / Organizer)	Login with valid credentials	Create Events (Client / Organizer)	Client/Organizer is logged-in	Performed Expected Result	Passed
103	Login/Logout (Client / Organizer/Supplier)	Upload Documents	OCR Validation (Client / Organizer/Supplier)	First step or registration is completed	Performed Expected Result	Passed
104	Create Events (Client / Organizer)	Input Event information	Set Budget (Client / Organizer)	An event is created	Performed Expected Result	Passed
105	Create Events (Client / Organizer)	Input Event information	Promote Event (Client / Organizer)	An event is created	Performed Expected Result	Passed
106	Choose Item Categories (Client / Organizer)	Select Item Categories for specific event	Browse Items (Client / Organizer)	At least 1 item category is set for an event	Performed Expected Result	Passed

Table 35.2  
INTEGRATION TESTING TABLE CONT'D

<b>Test Case ID</b>	<b>Module 1</b>	<b>Integration Process</b>	<b>Module 2</b>	<b>Precondition</b>	<b>Result</b>	<b>Remark</b>
107	Browse Items (Client / Organizer)	Browse for Items	Book/Purchase Items (Client / Organizer)	Item must be added to cart	Performed Expected Result	Passed
108	Create Item Transaction Client / Organizer)	Proceed Item from cart to transaction	Rate/Review Item Client / Organizer)	Transaction with the Item must be closed	Performed Expected Result	Passed
109	Set Filters Client / Organizer)	Input filters	Search Item Client / Organizer)	A Category of item must be pressed to start searching for items	Performed Expected Result	Passed
110	Chat (Client / Organizer/Supplier)	Chat another user	Notification (Client / Organizer/Supplier)	A chat message must be sent to trigger notification	Performed Expected Result	Passed
111	Create Event (Client / Organizer)	Input Event Details	Sponsor/Attend Event (Client / Organizer)	An event must be created	Performed Expected Result	Passed
112	Create Transaction (Client / Organizer)	Proceed Item in the Cart to Transaction	Accept Transaction (Supplier)	A transaction must be created	Performed Expected Result	Passed
113	View Store Profile (Client / Organizer)	Click on view store profile	Get Real- Time Store Directions (Client / Organizer)	Store location must be set by supplier	Performed Expected Result	Passed
114	Create Event (Client / Organizer)	Input Event Details	Hire Event Organizer (Client)	An event must be created	Input Event Details	Passed

## Alpha Testing

Alpha Testing is defined as a type of software testing performed to identify bugs before releasing the product to real users or the public. It is a type of acceptance testing. This testing is referred to as an alpha testing only because it is done early on, near the end of the development of the software, and before Beta Testing.

Table 36.1

### ALPHA TESTING

Test Criteria	Poor	Fair	Good	Very Good
Graphical User Interface (GUI)				
Consistency (The user interface is of the same formatting style and icons throughout the system)				
Reusability (The system contains reusable GUI components such as familiar buttons, text and checkboxes, and other tools.)				
Forgiveness and Tolerance (The interface displays message or confirmation prompts that would allow user to undo or redo critical actions.)				
Simplicity (The GUI design include simple GUI buttons, such as simple screens with clear, uncrowded messages.)				
Readability (The interface has appropriate colors, font sizes and styles that is convenient to the target users.)				
Clarity (Displayed error, help, and warning messages are clear, concise, and as elementary as possible to assist user in operating the software.)				
Flexibility (The system includes user preferences setting to allow changes, for example, increasing the font size.)				
User-friendliness (The GUI design must be user-friendly, by providing helpful, courteous, and non-offending messages.)				
System Performance				
Conformance to the Requirements (The system effectively met all the identified features and/or requirements.)				
Conformance to the Objectives (All specific objectives of the system are met by the program.)				

Table 36.2  
ALPHA TESTING

Test Criteria	Poor	Fair	Good	Very Good
Efficiency (The entire system functions efficiently. It doesn't have delay in any transaction.)				
Security (The system is secured. Login details are authenticated. Input parameters are ensured prior to the execution of the next transaction.)				
Integrity (The software allows registered user to have control over its own private information.)				
Overall Impression (In general, the program or system is functional and useful.)				

Table 36 shows the alpha testing done on the Okasyon mobile app. It tests both the back-end and the front-end section of the application from poor to very good. This testing makes sure that the product is ready for deployment therefore done before a product is deployed.

## Acceptance Testing

Acceptance testing is a formal testing with respect to user needs, requirements, and business processes conducted to determine whether or not a system satisfies the acceptance criteria and to enable the user, customers or other authorized entity to determine whether or not to accept the system.

Table 37.1

### ACCEPTANCE TESTING

#### Client Perceived Ease of Use

Construct	Operational Definitions	Measured Items	Yes	No	Accept	Reject	Comments
Perceived Ease of Use	Perceived ease of use refers to a level of easiness that clients feel when using the different features and functionalities of the mobile application.	<b>EU1:</b> I found it easy to create an account	/		/		
		<b>EU2:</b> Creating an Event was easy and hassle-free	/		/		
		<b>EU3:</b> Looking for events to attend was easy	/		/		
		<b>EU4:</b> I found it easy to search for items for my event	/		/		
		<b>EU5:</b> I found it easy set the budget for my event products and services	/		/		
		<b>EU6:</b> I found it easy to search for items for my event	/		/		
		<b>EU7:</b> I found it easy to rate the events, products, and services that I purchased/rented	/		/		



Table 37.2  
ACCEPTANCE TESTING cont'd

**Client User Satisfaction**

Construct	Operational Definitions	Measured Items	Yes	No	Accept	Reject	Comments
User Satisfaction	User satisfaction refers to a level of satisfaction that clients gained in using the mobile application	<b>US1:</b> I am satisfied by the processes in creating my account particularly in the security	/		/		
		<b>US2:</b> I am satisfied with the features allowed in creating events	/		/		
		<b>US3:</b> I am satisfied with the information I can see in each item, product, service, or event		/	/		
		<b>US4:</b> I am satisfied with the User Interface and it is aesthetically pleasing		/	/		
		<b>US5:</b> I am satisfied with the way the items are recommended and presented	/		/		
		<b>US6:</b> I am satisfied with the filters I am able to set when searching for items	/		/		

*M. Lin*

Table 37.3  
ACCEPTANCE TESTING cont'd

**Client Attribute of Usability**

Construct	Operational Definitions	Measured Items	Yes	No	Accept	Reject	Comments
Attribute of Usability	Attribute of usability helps to get feedback if the mobile application addresses the need of the users and if it really caters to the problems in the events industry.	AU: I found it convenient to create and promote my events to a wide array of people	/		/		
		AU2: I am presented with multiple products and services	/		/		
		AU3: I can only rate if I have performed a transaction with a product/service	/		/		
		AU4: I am presented with events that I am interested in	/		/		
		AU5: It is easy to set filters and the items presented to me are filtered correctly	/		/		
		AU6: Navigating through the mobile application is easy and convenient	/		/		



Table 37.4  
ACCEPTANCE TESTING cont'd

**Event Organizer Perceived Ease of Use**

Construct	Operational Definitions	Measured Items	Yes	No	Accept	Reject	Comments
Perceived Ease of Use	Perceived ease of use refers to a level of easiness that event organizers feel when using the different features and functionalities of the mobile application.	EU1: I am able to accept bookings easily	/		/		
		EU2: I am able to keep track of my bookings easily	/		/		
		EU3: I found it easy to create an account		/	/		
		EU4: Creating an Event was easy and hassle-free	/		/		
		EU5: Looking for events to attend was easy	/		/		
		EU6: I found it easy to search for items for my event	/		/		
		EU7: I found it easy set the budget for my event products and services		/	/		
		EU8: I found it easy to search for items for my event	/		/		
		EU9: I found it easy to rate the events, products, and services that I purchased/rented	/		/		

Table 37.5  
ACCEPTANCE TESTING cont'd

**Event Organizer User Satisfaction**

Construct	Operational Definitions	Measured Items	Yes	No	Accept	Reject	Comments
User Satisfaction	User satisfaction refers to a level of satisfaction that event organizers gained in using the mobile application	<b>US1:</b> I am satisfied by the processes involving the acceptance of bookings	/		/		
		<b>US2:</b> I am satisfied by the way I can keep track of my bookings	/		/		
		<b>US3:</b> I am satisfied by the processes in creating my account particularly in the security	/		/		
		<b>US4:</b> I am satisfied with the features allowed in creating events	/		/		
		<b>US5:</b> I am satisfied with the information I can see in each item, product, service, or event		/	/		
		<b>US5:</b> I am satisfied with the User Interface and it is aesthetically pleasing	/		/		
		<b>US6:</b> I am satisfied with the way the items are recommended and presented		/	/		
		<b>US7:</b> I am satisfied with the filters I am able to set when searching for items	/		/		

Table 37.6  
ACCEPTANCE TESTING cont'd

**Event Organizer Attribute of Usability**

Construct	Operational Definitions	Measured Items	Yes	No	Accept	Reject	Comments
Attribute of Usability	Attribute of usability helps to get feedback if the mobile application addresses the need of the users and if it really caters to the problems in the events industry.	AU1: I can accept bookings from clients and keep track of these bookings	/		/		
		AU2: I found it convenient to create and promote my events to a wide array of people	/		/		
		AU3: I am presented with multiple products and services	/		/		
		AU4: I can only rate if I have performed a transaction with a product/service	/		/		
		AU5: I am presented with events that I am interested in		/	/		
		AU6: It is easy to set filters and the items presented to me are filtered correctly		/	/		
		AU7: Navigating through the mobile application is easy and convenient		/	/		

Table 37.7  
ACCEPTANCE TESTING cont'd

**Supplier Perceived Ease of Use**

Construct	Operational Definitions	Measured Items	Yes	No	Accept	Reject	Comments
Perceived Ease of Use	Perceived ease of use refers to a level of easiness that suppliers feel when using the different features and functionalities of the mobile application.	EU1: I found it easy to create an account	/		/		
		EU2: I found it easy to set the details of my store	/		/		
		EU3: I found it easy to add items to my store	/		/		
		EU4: I found it easy to add items to my store	/		/		
		EU5: It was easy for me to edit the details of my profile, store, and items	/		/		

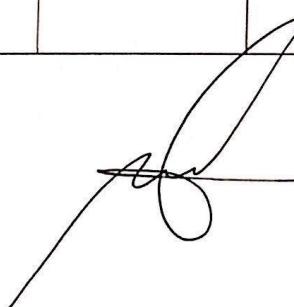


Table 37.8  
ACCEPTANCE TESTING cont'd

**Supplier User Satisfaction**

Construct	Operational Definitions	Measured Items	Yes	No	Accept	Reject	Comments
User Satisfaction	User satisfaction refers to a level of satisfaction that suppliers gained in using the mobile application	<b>US1:</b> I am satisfied by the processes in creating my account particularly in the security	/		/		
		<b>US2:</b> I am satisfied with the features allowed in creating my store	/	/			
		<b>US3:</b> I am satisfied with the processes involving the addition of items to my store		/	/		
		<b>US4:</b> I am satisfied with the variety of item categories I can add to my store	/	/			
		<b>US5:</b> I am satisfied with the features I am able to use for my items	/		/		
		<b>US5:</b> I am satisfied with the way I can keep track of my bookings	/		/		

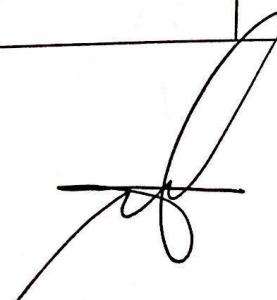
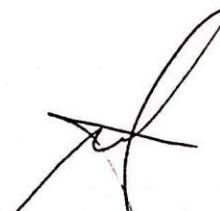


Table 37.9  
ACCEPTANCE TESTING cont'd

**Supplier Attribute of Usability**

Construct	Operational Definitions	Measured Items	Yes	No	Accept	Reject	Comments
Attribute of Usability	Attribute of usability helps to get feedback if the mobile application addresses the need of the users and if it really caters to the problems in the events industry.	AU1: I found it convenient to create and promote my stores to a wide array of people	/		/		
		AU2: I found it convenient to create and promote my products/services to a wide array of people	/		/		
		AU3: I am able to receive bookings from clients	/		/		
		AU4: I am able to keep track of my bookings	/		/		



## **Implementation/Deployment Phase**

The implementation/deployment phase shows the activities done by the proponents when the system was already tested in the user's environment. It also includes the different specifications such as cost, software, and human resources specification and the user manual which is a step by step, per user interface guide on how the mobile application works, on how it is installed, and the necessary system information essential in running the application.

### **Implementation Budget/Cost Specification**

This portion shows the different expenses incurred in the development of the project.

Table 38

#### COST SPECIFICATION

Unit	Quantity	Cost
DDR4 RAM (8 GB)	1	P4500
DDR3 RAM (8 GB)	1	P5000
POCKET WIFI	1	P800

Table 38 shows the expenses incurred during the project's implementation. There wasn't much hardware cost because the project mainly focuses on developing software which is a mobile application. Since the proponents mainly focused on this, the computers' RAMs had to be upgraded because Android Studio, the IDE that the proponents used throughout the development process, would hardly function in a computer with only 4GB RAM. The proponents also had to spend on purchasing a pocket Wi-Fi because internet connectivity is a must to enable the application to perform most of its processes. In the printing expenses, the proponents were fortunate enough to have a sponsor so it was a huge help in minimizing the cost in the completion of the project.

## **Software Specification**

This section states the software like the operating system, programming languages both front-end and back-end, platforms, and database requirements that will be used in the development of the entire system. Okasyon will be developed using Android Studio, an Integrated Development Environment (IDE) for Google's Android operating system, designed specifically for Android development. The researchers will be using both java and kotlin for the back-end and firebase for the server side. Some APIs that the researchers will be using are Google Cloud Vision API, Google Maps API, and Google Places API. The application will also be using a built-in GPS in phones to use the Google Maps API. For the data returned by the Google APIs, we will be dealing with JSON format because it is lightweight and is less complicated to use. The mobile app will only be running on an Android Operating System and is available in Version 5.1 (Lollipop) until the latest version of the OS.

## **Hardware Specification**

The proposed project will mainly be focusing on software and the hardware involved will only be the android device like mobile phones or tablets in which the application will be run.

## **Human Resource Specification**

This section shows the different users of Okasyon which includes the client, event organizer, and the supplier who provides the products and services.

TABLE 39

### HUMAN RESOURCE SPECIFICATION

<b>USER</b>	
Client	The clients are able to create events, hire event organizers, browse and purchase items, provide ratings and reviews, set filters and preferences, and promote their events. The client can also send and receive notifications as well as utilize the chat functionality.
Event Organizer	The event organizer has similar functions with the client except that an event organizer can be booked by the client. The event organizer can also create events, hire other event organizers, browse and purchase items, provide ratings and reviews, set filters and preferences, and promote their events to look for attendees and sponsors. The event organizer can also send and receive notifications as well as utilize the chat functionality.
Supplier	The supplier is able to create a store in the mobile app, add items, accept transactions, change transaction status, send and receive notifications, and utilize the chat functionality

## User Guide

This section contains the guide for the user to help them navigate through the application depending on the type of user.

### 1. Introduction

Okasyon is a mobile application that uses technologies like OCR through google vision, Google Maps, and Google Nearby Places API. The application provides a detailed directory of products and services in the events industry, allows booking, giving of rates and reviews, chat functionality, creation of events, promoting of events, and the like.

### 2. System Summary

#### 2.1 System Configuration

Okasyon runs on devices like mobile phones, tablets, and other electronic devices with an Android operating system. Okasyon is compatible with Android Version 5.1 112 (Lollipop) and up to the latest version. The application requires Internet connection, built-in Global Positioning System (GPS) receiver to acquire the current locations of the users.

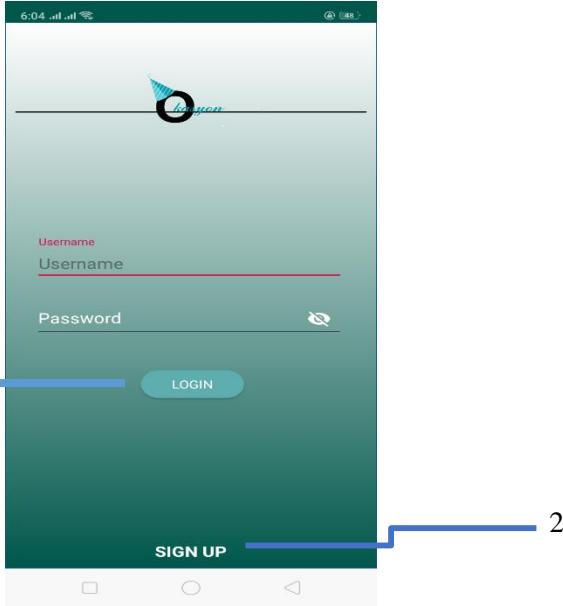
#### 2.2 User Access Levels

Only users who have registered through the app can use the mobile application. Access to the different features of the app will also depend on the type of user may it be client, event organizer, or supplier.

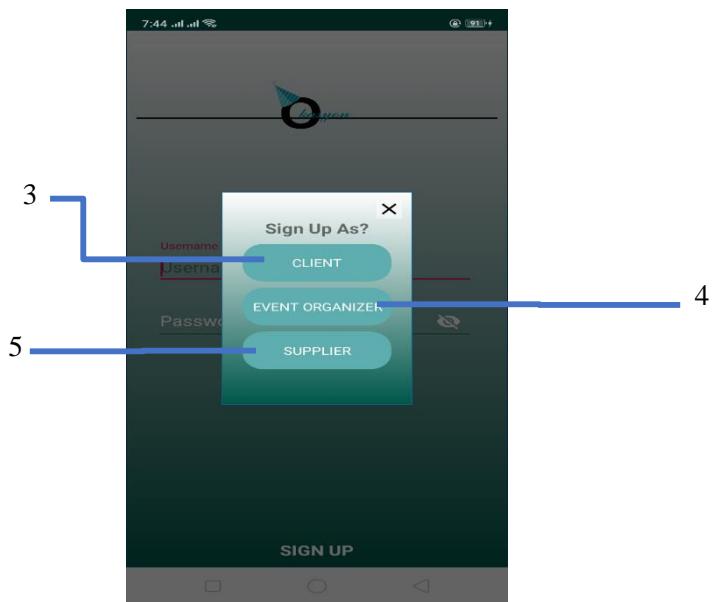
### 3. Installation

To install the Okasyon application, once uploaded to play store, users can directly download it given that the device meets the hardware and software requirements.

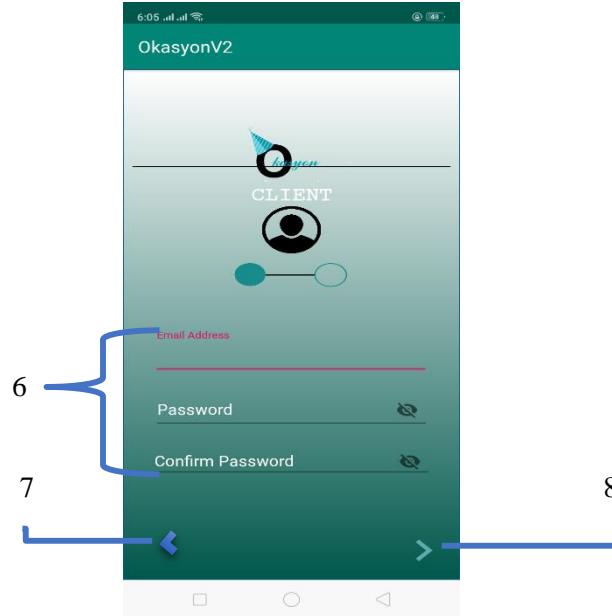
### 4. User Manual



1. Press button to Login after inputting credentials
2. Press button to sign up if user has no account



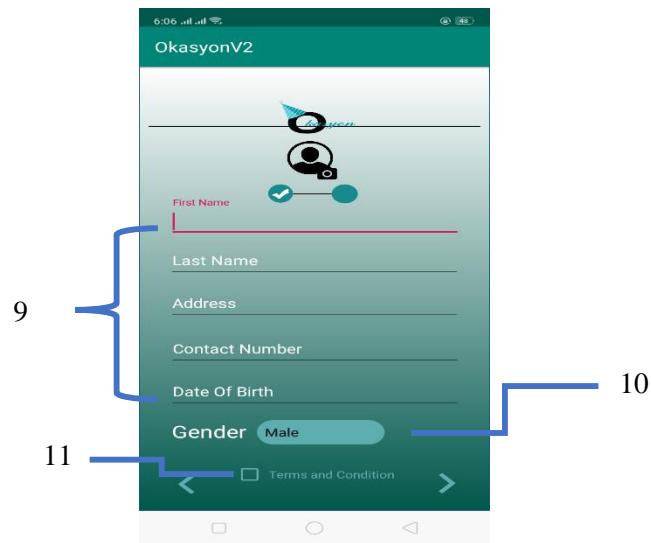
3. Press button to register as client
4. Press button to register as event organizer
5. Press button to register as supplier



6. Input Account Details

7. Press Button to go back to login page

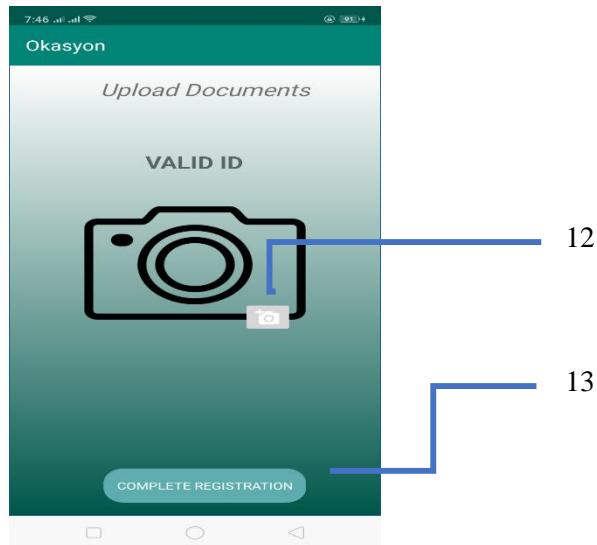
8. Press Button to go to next step of registration page



9. Input Account Information

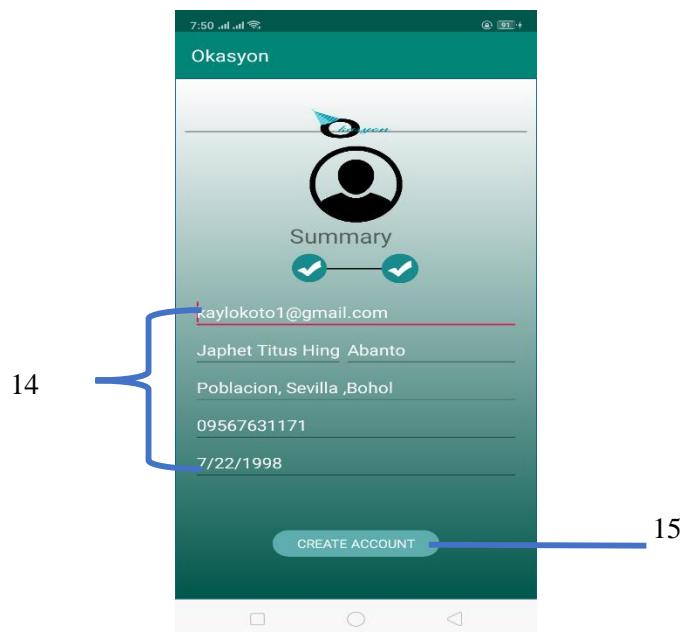
10. Choose Gender

11. Check box to accept terms and conditions



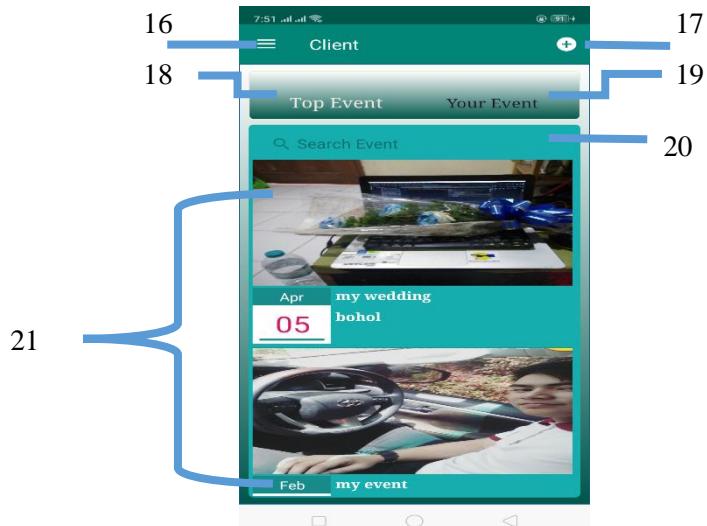
12. Press button to upload image of Valid ID

13 Press button to complete registration

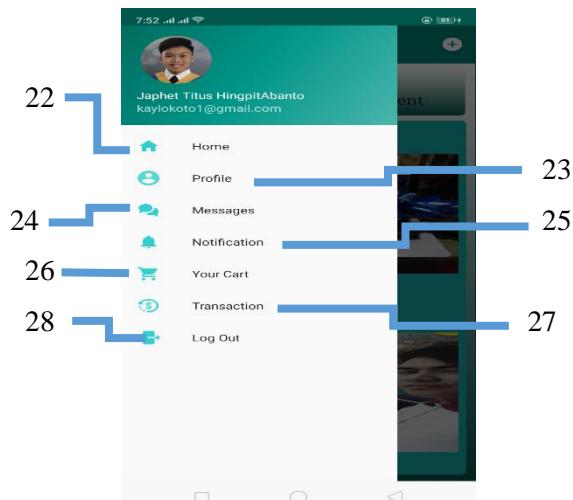


14. View Summary Details

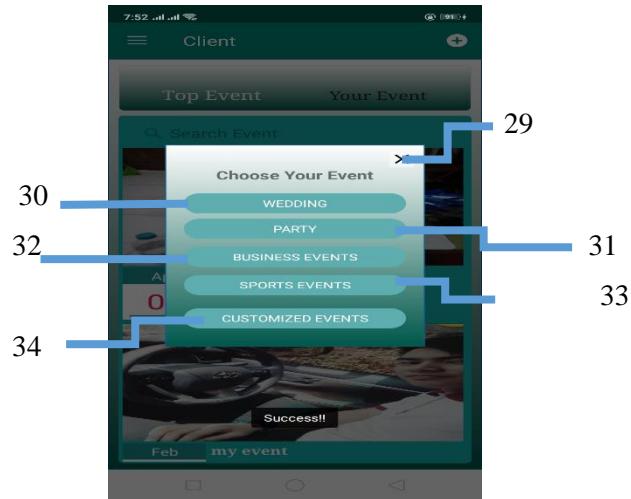
15. Press button to create account



16. Press Button to open Navigation bar
17. Press Button to create event
18. Press Tab To see top events
19. Press Tab to see events created by the user
20. Press Button to search for events
21. shows Top and User events



22. Press to go to homepage
23. Press to open profile
24. Press to open messages
25. Press to open notification
26. Press to view items added to user's cart
27. Press to open transactions created by the user
28. Press to Log out account



29. Press Button to close modal

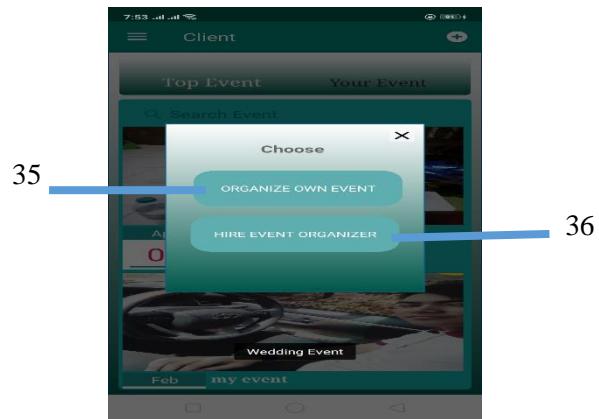
30. Press to choose wedding event category

31. Press to choose Party event category

32. Press to choose Business event category

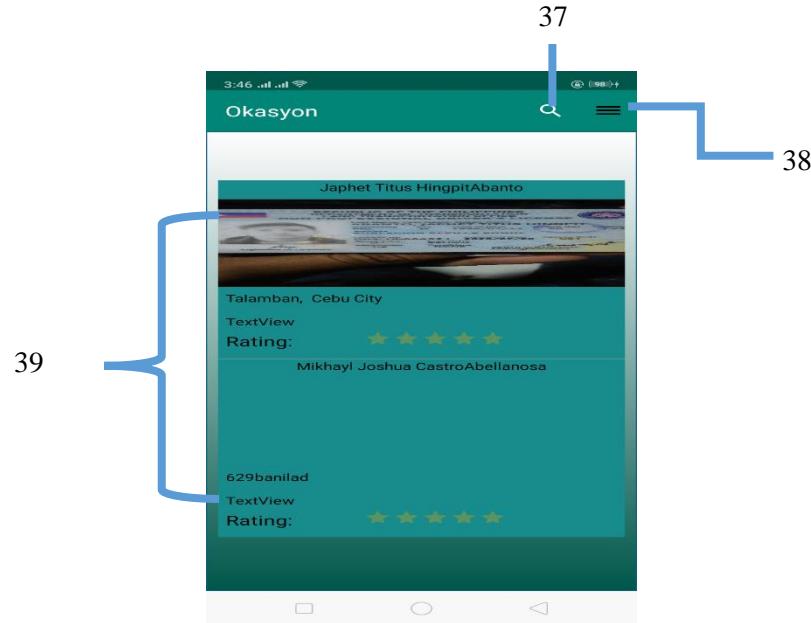
33. Press to choose Sports event category

34. Press to choose Customized event category



35. Press Button to Hire organizer and redirect to Event organizers page

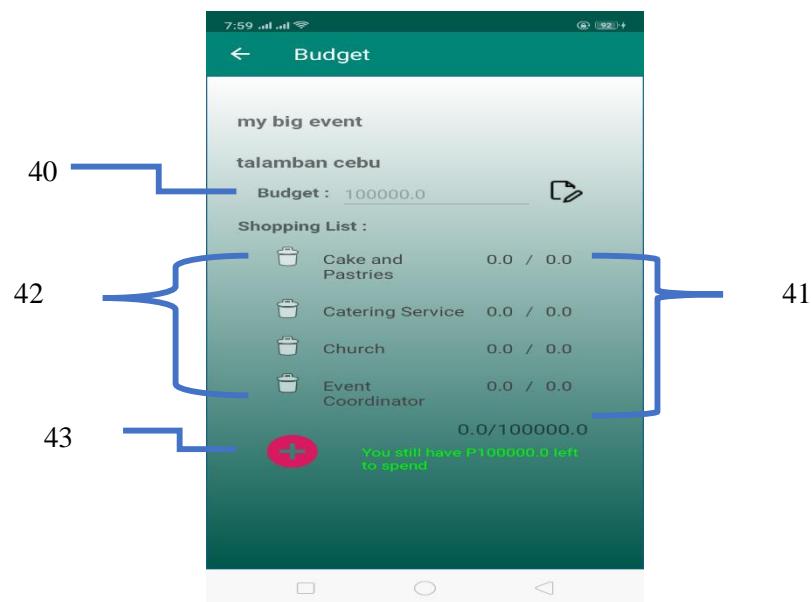
36. Press Button to organize own event



37. Press to search for organizers

38. Press to open filter

39. Shows list of event organizers

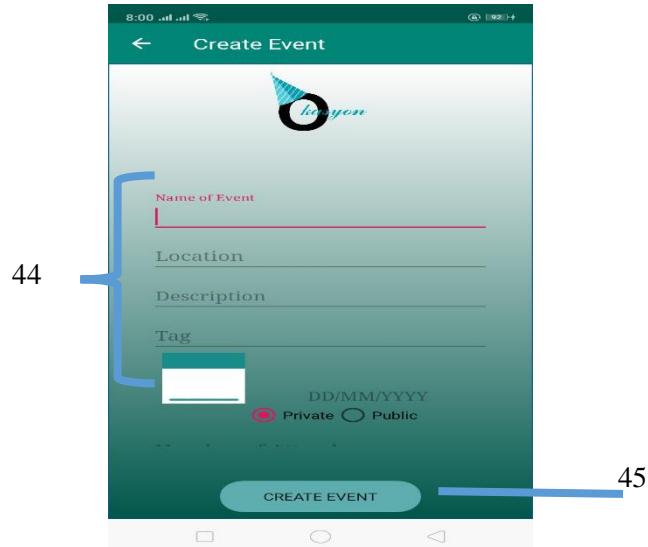


40. Show the budget set

41. Chart showing the division of budget

42. Delete an item category

43. Press to add an item category

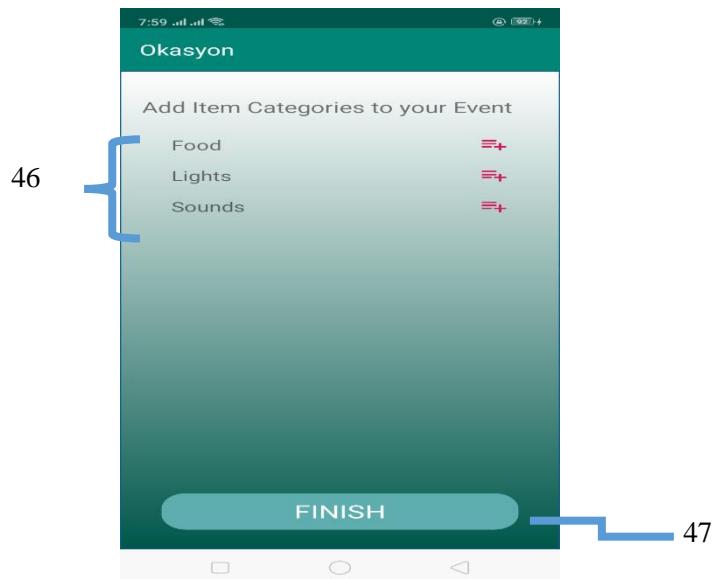


44

45

44. Input event details

45. Press to create event

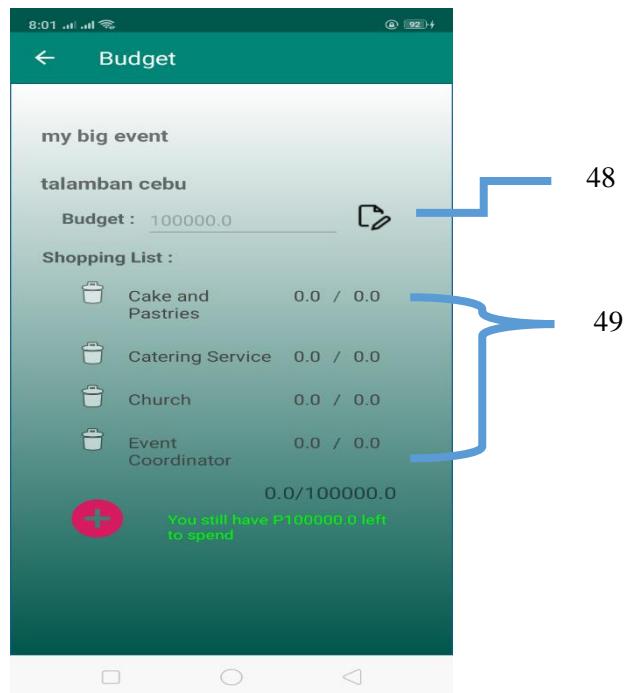


46

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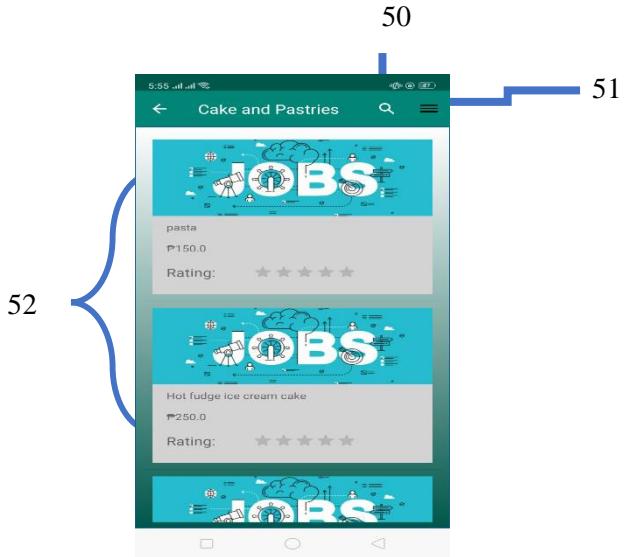
46. Press to choose item to be added to users account

47. Press to add item/s in user's event



48. Press to edit event item categories

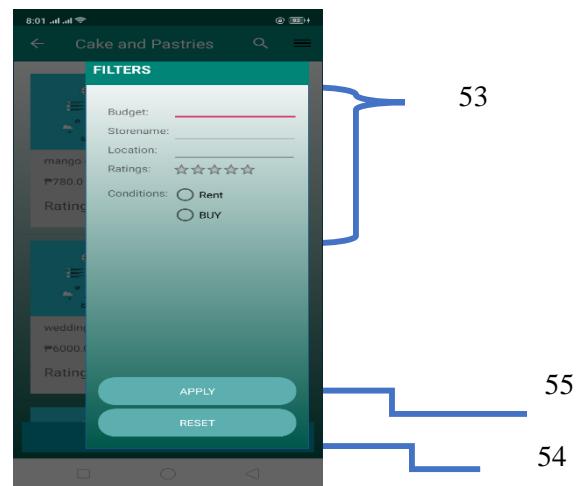
49. Item Cost (Actual and Set Budget) and Total Cost (Actual and Set budget)



50. Press to search for items

51. Press to open item filter

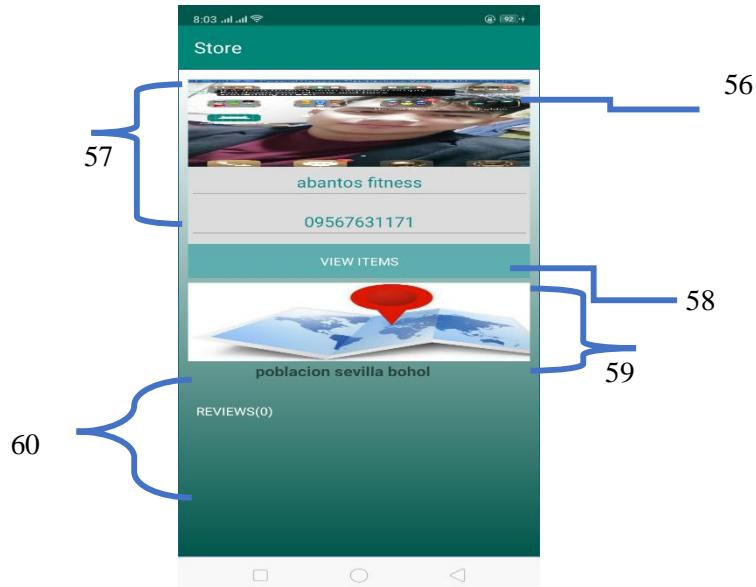
52. Shows list of items to purchase



53. Enter filters for search query

54. Press to reset filter

55. Press to apply filter



56. Press to search Store

57. Shows Store details

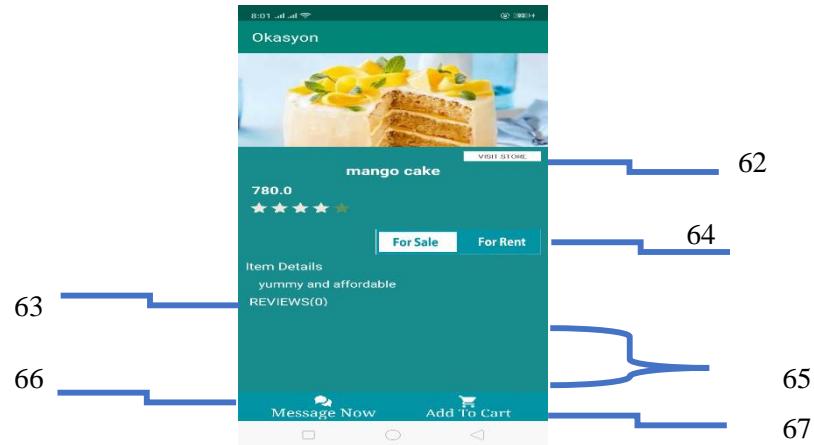
58. Press to view store items

59. Press to get real-time directions to store

60. Shows user reviews on a specific store



61. Shows list of items sold by store



62. Press to go to store which the item belongs

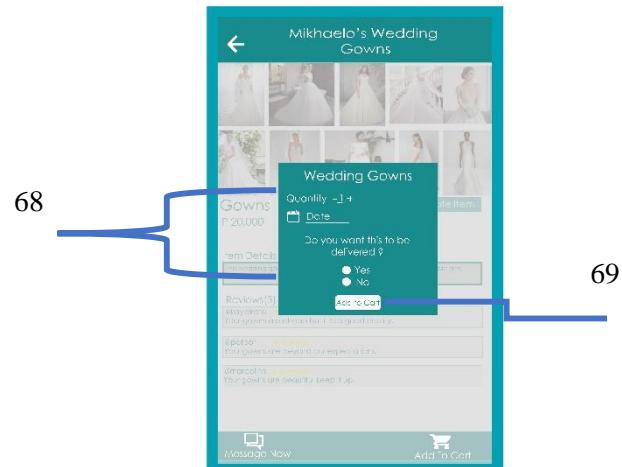
63. Shows item description

64. Shows if an item is for rent or for sale

65. Shows item reviews for an item

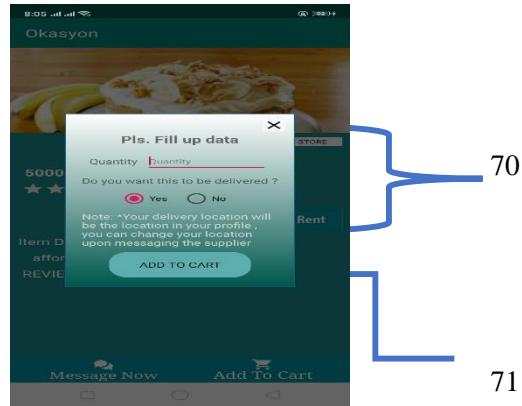
66. Press to message store owner

67. Press to add item to cart



68. Input details for the rental of item

69. Press to add item to cart

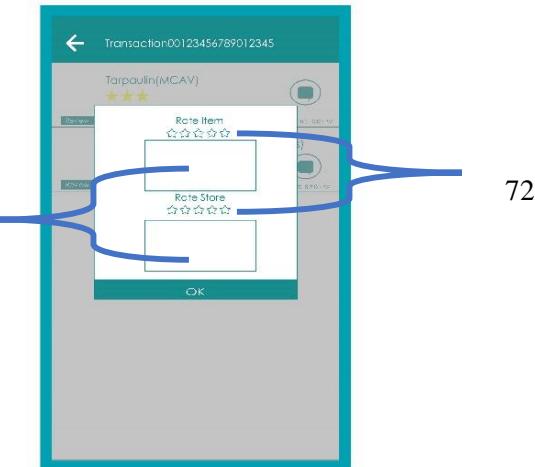


70

71

70. Input details for the buying of item

71. Press to add item to cart

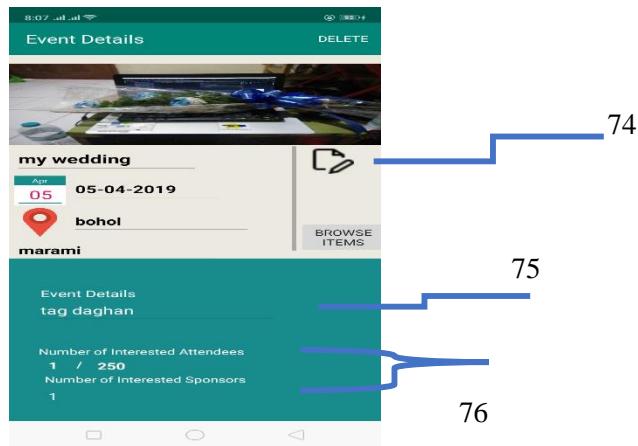


72

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72. Rate Item

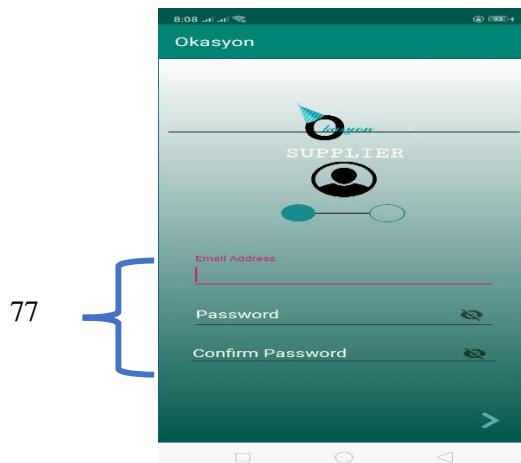
73. Input comments or reviews for item



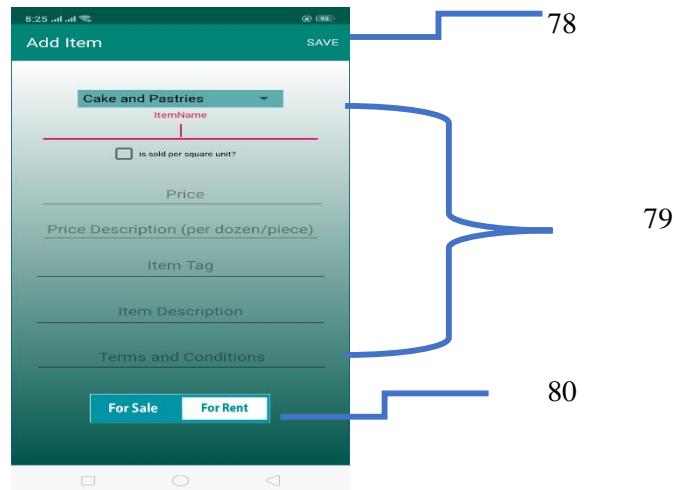
74. Press to edit event details

75. Input event details

76. Number of interested attendees or sponsors



77. Input supplier account credentials



78. Press to save item in store

79. Input Item Details

80. Choose if the item is for sale or for rent

## **Installation Guide**

The installation guide helps the users with the installation of the mobile application in their android phones, tablets, etc.

- 1.) Check device requirements
  - a. Device must at least have an OS version of 5.1 (Lollipop)
  - b. Device must have be GPS enabled
  - c. Device must be connected to the internet
- 2.) Install the application
  - a. Visit Play Store and download the Okasyon application.
  - b. Once downloaded, Okasyon is now ready to use.

## Project Roadmap

The project roadmap is a high-level, easy-to-understand overview of the important pieces of a project. It shows the project's goals and ambitions.

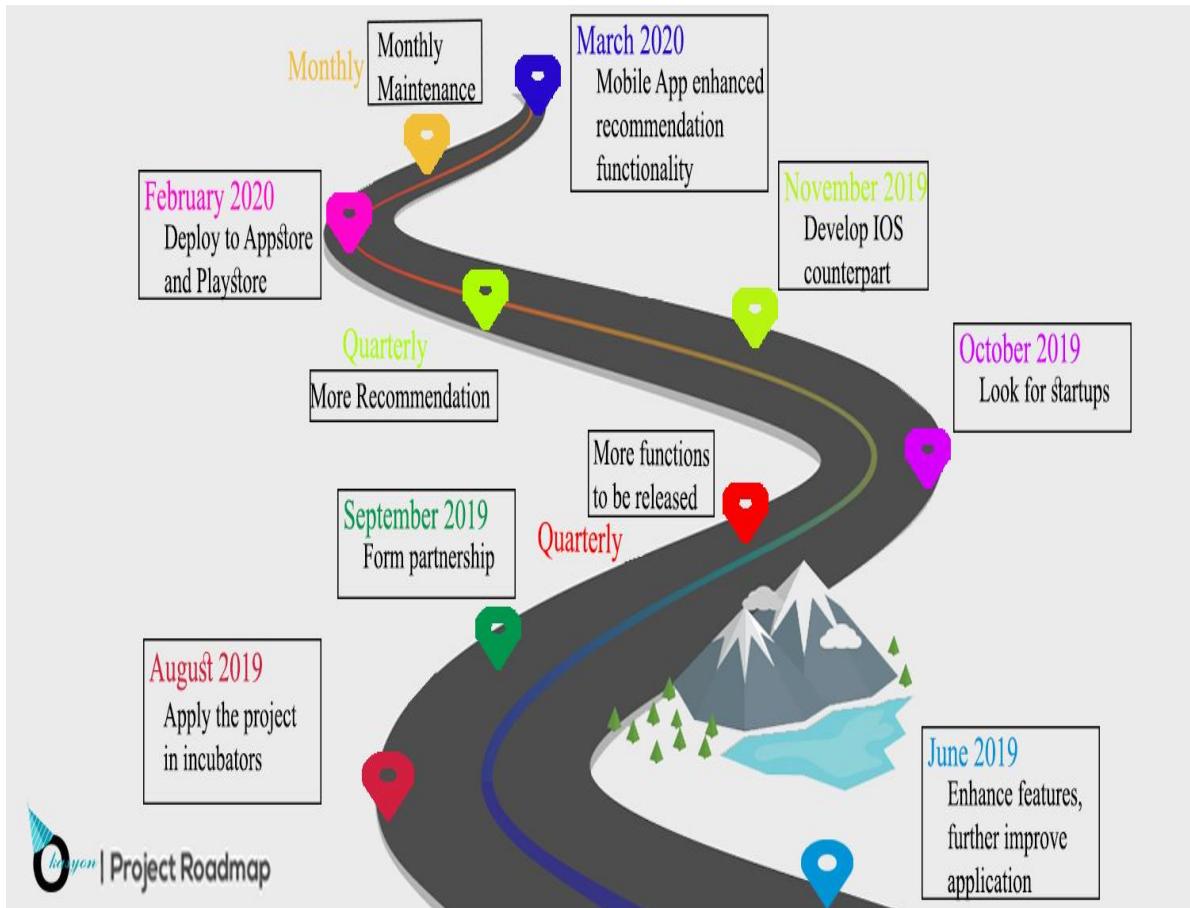


Figure 45: **Project Roadmap**

Figure 45 shows the project's goals and objectives particularly in making it a startup business. It shows the activities the proponents will take to create a business caliber mobile application that would be accepted by the market. It also shows that quarterly, new features and enhancement of the application will be done to further improve the application. Maintenance will also be done monthly to ensure that the system will be up and running and that it stays that way.

## **Findings**

The research yielded results that proved the need and the market opportunity for our mobile application. Presented below are the results of the surveys and interviews conducted by the proponents :

- 65.2% found it difficult to find products/services for their events
- -70.9% said that their choices are limited when choosing event products/services
- -85.5% found it difficult to find sponsorships for the events they are conducting
- -89.6% found it hard to promote their events to a wide array of people
- -100% of them are interested in the application which is the output of this study.

## **Conclusion**

Existing platforms for the events industry like Facebook and Instagram work but lacks most of the essential aspects in promoting products/services and events. Okasyon caters to all these essential aspects and tries to provide the users of the application with utmost ease and comfort and personalizes the app for them through the TF-IDF algorithm used. Completing the project was very challenging but everything was worth it in the end. Looking at the fruits of all the sleepless nights and hard work, it indeed is very rewarding and the knowledge and learnings acquired throughout the development of the project are unparalleled and contributed much to the preparation of the proponents for employment.

## **Recommendations**

Although Okasyon is loaded with features and APIs, there are still a lot of things to improve on and features to enhance. Some recommendations given both by the panel and the proponents are the ff:

1. Okasyon should also be able to run in different platforms and operating systems like IOS to reach an even wider market.
2. In the application, the clients need shouldn't be the only thing that should be focused on. The suppliers needs are equally important as well.
3. Okasyon should also be able to allow the users to post videos or live feeds of their events so as to attract more users in the application.

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**APPENDIX A**

## Censor's Certificate

Censor's Certificate



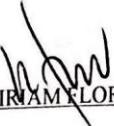
University of Cebu

College of Computer Studies

Date: 02 / 26 / 2019**CENSOR'S CERTIFICATE**

This is to certify that the undersigned has reviewed and went through all the pages of the proposed project study/research manuscript entitled "Okasyon: A Mobile-Based Event Products and Services Management System" as against the set of structural rules that govern the composition of *sentences, phrases, and words* in the English language as well as the technical terms, syntax (format, etc.) and semantics appropriate for the Information Technology and Computing fields.

Signed:


  
MS. MIRIAM FLORES

Grammarian

Conforme:


  
MARC LENNARD COLINA

Project Manager

Noted:


  
MR. ERIC P. ORTEGA

Adviser

## APPENDIX B

## Consultation Logs



University of Cebu  
College of Computer Studies

## Capstone41 (Capstone Project 1) Consultation Logs Form

Capstone Project Title:

OKAYON: A MOBILE-BASED EVENTS PROMOTION PLATFORM AND EVENT PRODUCTS /  
SERVICES RECOMMENDER SYSTEM

Names of Proponents:

Collina, Marc Bernard S. Bonyo, Michael Mheal  
Abellano, Joshua C.  
Abanto, Jayne Tritus H.

Group Name:

TEAM BOY

Consultations	Date and Time of Consultation	Project Manager's Signature	Adviser's Signature
<b>1st Consultation</b> should be within:	August 14, 2018 6:00pm	[Signature]	[Signature]
Chapter 1 must be completely delivered for adviser's evaluation	Remarks:	<p>Chapter 1 of the manuscript has been completed. There should be minor changes in the objectives of the study, the definition of terms and the flow of the study. In the objectives some words used had to be changed and some objectives must be combined. The terms in the objectives must be clearly defined in the definition of terms and these objectives must be the input of the flow of the study. Other than that, Chapter 1 is already good.</p>	
<b>2nd Consultation</b> should be within:  Chapters 1 and 2 must be completely delivered for adviser's evaluation	September 11, 2018 6:00 pm	[Signature]	[Signature]
	Remarks:	<p>Some of the references used in the literature and related studies are from a long time ago and they must be changed into recent ones. Chapter 2 has been completed and there are no lacks. In the related studies, the information that we gathered must also have a citation.</p>	

## APPENDIX C

## Consultation Logs cont'd

<b>3rd Consultation</b> should be within:	October 11, 2018	<i>[Signature]</i>	<i>[Signature]</i>
<b>Remarks:</b>			
Chapters 1, 2 and 3 must be completely delivered for adviser's evaluation			
Chapter 1, 2, and 3 had been completed but there are extra narration or tables and diagrams that must be placed. There are also tools and figures that must be completed. Since there are additional features, the objectives of the study must be altered as well as the definition of terms and the flow of the study. All the other diagrams and tables are good.			
<b>4th Consultation</b> should be within:	October 16, 2018	<i>[Signature]</i>	<i>[Signature]</i>
<b>Remarks:</b>			
Chapters 1, 2, 3 including initial and final pages must be completely delivered for adviser's evaluation			
Chapters 1, 2, 3 together with the initial and final pages are complete. There are no major changes in the manuscript and the objectives of the study have been altered and updated as well as the flow of the study and the definition of terms. A suggestion of using Tf-IDF as a search functionality has been approved and given a go signal.			

This is to certify that I have been regularly consulted by my advisees; have reviewed their system prototype as well as the required manuscript of the above-stated study. As their adviser, I therefore submit them ready for **Proposal Hearing as the Chapters 1 through 3 and the pertinent parts of their manuscript are complete.**

NOTE: Defense week: October 23 - October 27, 2018

Signed:

(Signature of Adviser over printed name)

**APPENDIX D**

## Transmittal Letter – Fe &amp; Nicole

**October 17, 2018**

**Gina Ardimar**

**Stylist, Fe & Nicole**

**Gov. M. Cuenco Ave, Cebu City, 6000 Cebu**

Dear Ms. Gina,

Great Day!

We, the 4th year Bachelor of Science in Information Technology students of University of Cebu – Banilad Campus are currently conducting a Capstone Project entitled “Okasyon: A Mobile-Based Events Promotion Platform and Event Products/Services Recommender System”. The preceding activity is a year-long prerequisite for graduation which requires intensive research beyond the four corners of the school.

The mobile application that we will be proposing will recommend Event products/services based on the specifications set by the user and can promote events to a wide array of people. In line with this, we would like to humbly ask some questions to help us clarify the processes when it comes to supplying event products/services to weddings, debuts, and other events that your business caters to and the problems that you encounter in doing such, so that hopefully, we could provide a solution to these problems through our app. Rest assured that the data and information gathered will be kept confidential and will be used for research purposes only.

We are hoping for your positive consideration of this request.

Respectfully Yours,

**Marc Lennard S. Colina**

Project Manager

Noted By :

**Mr. Eric Ortega**  
Adviser



Recommended By :

**Ms. Moma D. Ortega**  
Dean, College of Computer Studies

**APPENDIX E**

## Transmittal Letter – Tiamo Bella Boutique

October 17, 2018

**Jhey Bernas**

Business Owner, Tiamo Bella Boutique  
Gov. M. Cuenco Ave, Cebu City, 6000 Cebu

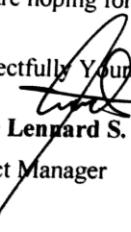
Dear Ms. Jhey,

Great Day!

We, the 4th year Bachelor of Science in Information Technology students of University of Cebu – Banilad Campus are currently conducting a Capstone Project entitled “Okasyon: A Mobile-Based Events Promotion Platform and Event Products/Services Recommender System”. The preceding activity is a year-long prerequisite for graduation which requires intensive research beyond the four corners of the school.

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We are hoping for your positive consideration of this request.

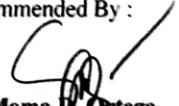
Respectfully Yours,  
  
**Marc Lenard S. Colina**  
Project Manager

  
Jhey Bernas

Noted By :

  
**Mr. Eric Ortega**  
Adviser

Recommended By :

  
**Ms. Moma L. Ortega**  
Dean, College of Computer Studies

## APPENDIX F

### Transmittal Letter – Idea Events and Designs

**October 16, 2018**

**Dominic Castro Roa**  
**Wedding Coordinator**  
**1077 H. Cortes St. Wireless, Mandaue City**

Dear Mr. Dominic,

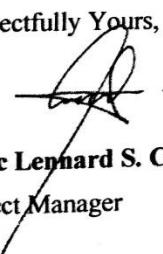
Great Day!

We, the 4th year Bachelor of Science in Information Technology students of University of Cebu – Banilad Campus are currently conducting a Capstone Project entitled “Okasyon: A Mobile-Based Events Promotion Platform and Event Products/Services Recommender System”. The preceding activity is a year-long prerequisite for graduation which requires intensive research beyond the four corners of the school.

The mobile application that we will be proposing will recommend Event products/services based on the specifications set by the user and can promote events to a wide array of people. In line with this, we would like to humbly ask some questions to help us clarify the processes when it comes to coordinating weddings, purchasing event needs/services, and the problems that you encounter in doing such so that hopefully we could provide a solution to these through our app. Rest assured that the data and information gathered will be kept confidential and will be used for research purposes only.

We are hoping for your positive consideration of this request.

Respectfully Yours,

  
**Marc Leonard S. Colina**  
Project Manager

  
Dominic Roa

Noted By :

  
Mr. Eric Ortega  
Adviser

Recommended By :

  
Ms. Momal D. Ortega  
Dean, College of Computer Studies

**APPENDIX G**

## Transmittal Letter – Lany Unisex Salon

**October 15, 2018**

**Lany Bacunawa**  
**Wedding Coordinator and Salon Owner**  
**1077 H. Cortes St. Wireless, Mandaue City**

Dear Mr. Lany,

Great Day!

We, the 4th year Bachelor of Science in Information Technology students of University of Cebu – Banilad Campus are currently conducting a Capstone Project entitled “Okasyon: A Mobile-Based Events Promotion Platform and Event Products/Services Recommender System”. The preceding activity is a year-long pre-requisite for graduation which requires intensive research beyond the four corners of the school.

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We are hoping for your positive consideration of this request.

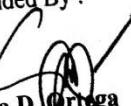
Respectfully Yours,

  
**Marc Leonard S. Colina**  
Project Manager

Noted By :

  
**Mr. Eric Ortega**  
Adviser

Recommended By :

  
**Ms. Moma D. Ortega**  
Dean, College of Computer Studies

**APPENDIX H**

## Transmittal Letter – Jun Esma

October 16, 2018

**Jun Esma**

Business Owner, Jun Esma Beauty Salon and Spa  
Gov. M. Cuenco Ave, Cebu City, 6000 Cebu

Dear Mr. Jun,

Great Day!

We, the 4th year Bachelor of Science in Information Technology students of University of Cebu – Banilad Campus are currently conducting a Capstone Project entitled “Okasyon: A Mobile-Based Events Promotion Platform and Event Products/Services Recommender System”. The preceding activity is a year-long prerequisite for graduation which requires intensive research beyond the four corners of the school.

The mobile application that we will be proposing will recommend Event products/services based on the specifications set by the user and can promote events to a wide array of people. In line with this, we would like to humbly ask some questions to help us clarify the processes when it comes to supplying event products/services to weddings, debuts, and other events that your business caters to and the problems that you encounter in doing such, so that hopefully, we could provide a solution to these problems through our app. Rest assured that the data and information gathered will be kept confidential and will be used for research purposes only.

We are hoping for your positive consideration of this request.

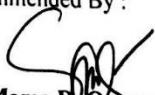
Respectfully Yours,  
  
**Marc Lennard S. Colina**  
 Project Manager

To:   
**Jun Esma**

Noted By :

  
**Mr. Eric Ortega**  
 Adviser

Recommended By :

  
**Ms. Moma D'Ortega**  
 Dean, College of Computer Studies

**APPENDIX I**

## Survey Questionnaire

**EVENT SERVICE/PRODUCT NEEDS SURVEY**

This survey aims to gather information about the different struggles of an event organizer and event product/service providers.

The questions below may be answered by both Event Organizers or Event product/service providers. Please answer accordingly.

Event Organizer - someone who organizes events or those that purchase event products/services.

Supplier - those that provide event products/services for sale or for rent. (Event Hosts, Venue Providers, Make-up Artists etc.)

**\*Required**

Name of Store / Company (Supplier)

---

Name of Respondent \*

---

Years of Experience in the Events Industry (Supplier or Organizer) \*

---

How difficult is it for you to find products/services essential for your event like sound systems, venue, catering services, and the like? (Organizer)

- Very Hard
- Hard
- Easy
- Very Easy

Are your choices limited when choosing the product/services that you need for your event? (Organizer)

- Very Limited
- Limited
- Abundant
- Very Abundant

Are you satisfied with the quality of the products and services that the event products/service providers have given you? (Organizer)

- Very Satisfied
- Satisfied
- Dissatisfied
- Very Dissatisfied

Are these products/services worth the money you're spending? (Organizer)

- Very Worth It
- Worth It
- Not Worth it

How difficult is it to look for sponsors for your events (Organizer)?

- Very Difficult
- Difficult
- Easy
- Very Easy

How hard is it to promote the events you organized to a wide array of people? (Organizer)

- Very Hard
- Hard
- Easy
- Very Easy

Would you be interested in a mobile app that would recommend to your different kinds of event needs and services that would most fit your preferences? (Organizer)

- Very Interested
- Interested
- Not Interested
- I don't need one

Would it be helpful if you have an app to promote your event where people and event sponsors can view it and opt to sponsor your event? (Organizer)

- Very Helpful
- Helpful
- Not Helpful
- I don't Need One

Are you an avid Event Goer? If yes, would an android platform that can recommend to your events that you wish to attend depending on the preferences that you set be helpful? (Supplier or Organizer)

- Very Helpful
- Helpful
- Not Helpful
- I don't need that application

Would you find it helpful if there is an app that could help promote and make it easier for people to discover your store (Supplier)

- Very Helpful
- Helpful
- Not Helpful
- I don't Need One

Would you be willing to register your store in the mobile app to reach a wider array of clients/customers? (Supplier)

- Very Willing

- Willing
- Not Willing
- I Don't Need One

What are the types of events that you commonly organize/supply to? Example: Birthdays, Weddings, Parties, etc. (Supplier or Organizer)

---

Email

---

Contact No.

---

Additional Comments (Optional)

---

**APPENDIX J**

## Transcript

Interviewee

Jon Dominique Roa

Idea Events and Designs Position: fashion designer

69 eagle street, Santo Nino Village, Banilad,

Cebu City, 6000 Cebu

Interviewers

Marc Lennard S. Colina

Mikhayl Joshua C. Abellanosa

Mikhaelo Nheal Bongo

Japhet Titus H. Abanto

Marc: Kuya, mag interview mi kuya ha, about sa imong business

Dominique: Sige go! Unsa inyong mga pangutana?

Marc: Pwede bag amo e record imong answers?

Dominique: Ok start!

Marc: How many years have you been in the event industry

Dominique: Uhmمم, including my coordination experience, its y 9 years.

Marc: This business?

Dominique: this recent one, has been three years, when I started my own line with clothes.

Marc: So, twelve years na tanan?

Dominique: No apil na siya sa 9 years.

Marc: Katong ga coordinate pakag events, what problems have you encountered.

Dominique: Uh, problems. yeah, like... how to get about the suppliers for clothes and also How to make the client understand that those clothes in the net are not that all time available in Philippines or in Cebu.

Marc: So mao nang main problem ato na time?

Dominique: Yeah, it's because it's very visible and with clothes it must be visible and it must look good also

Marc: So, aren't you having a hard time sap ag communicate sa clients through Instagram?

Dominique: No, because there's a messenger app already, before there was no direct message through Instagram and now app has developed and it has ano na direct message.

Marc: Ahh, so usually what happens? Do you meet in a place or do they come here?

Dominique: Uhmm since I'm a home-based shop it should be per schedule so I give uh I give my number contact details, address and then they will call first number 1 and then schedule there visits so yeah that's how I go and meet them personally or yeah.

Marc: So, you don't meet up in a play or somewhere?

Dominique: Hmm before a year ago probably because I was quite far and now since I'm already in Banilad so mas near na siya sa city. So yeah, I can meet them here instead of leaving my place to meet them.

Marc: Kay in Instagram mang gud there a lot of people have Instagram so in can be prone to scam or unsa, have you ever experienced those kinds of things?

Dominique: Scam? Not really.

Marc: No not really scam but like nag inquire niya nag sabot them wala ni tunga.

Dominique: Ahhh murag bogus somethings.

Marc: Oo murag ing ana.

Dominique: Uhmm naa man sad it usually happens because my line of business is mostly uhh it will take an inquiry for you to answer kanang a specific service or naa silay inquiry so dili siya necessary nga ma bogus because I'm not selling anything but inquiry mang gud sometimes.

Marc: Some time lang, wala ray ma wa nimo.

Dominique: Wala raman pero I'll just have to answer that.

Marc: Pero ang ilang questions ig inquiry, how much is this, how much is that?

Dominique: Pero it's not the selling part that's difficult, it's the marketing, when that's why we used the hashtag, mas mo gawas siya kana nga hashtag imo gi-use. Yes, so it's also important you have to be original with your hashtag para ikaw ang nag gamit jud ana, other than mo ingon kag hashtag like foods so daghan kay imong instafood all over ah yessss.

Marc: Oo kay sensitive pud baya na.

Dominique: All over, yes, labi na ma wrong spelling ka or ana, bati kaayo mas may nang mo make kag imong own para every time kanang sometimes ang hashtag kay entire phrase naman kanang dinaman sha one word so ma search nimo, ma search nila ang imong app, or imong kanang, ang imohang account.

Marc: Basically, they'd have to know the hashtag pa noh, para to directly gyud.

Dominique: Not! I don't know, but me as a, as a user, or as a mobile phone kuan user, especially Instagram, me I have kanang automatic search from key words na ana like google but it will present you all, ahhh Instagram will give you pictures first, must visual photograph, so kana

Marc: Are you satisfied with this performance?

Dominique: With Instagram, yeah yeah, it's very satisfying for in the industry like me, nga naa koy account and then mayo ra sad sha kay mas visual ang Instagram that's kanang compared to Facebook, uhmmmm dili man gud kaayo, you have to scroll down the entire page para makita nimo ang next photo unlike Instagram naa na sha, unsa gani na, kanang naka small boxes na sha, nya ig tap nimo sa box dako na dayun na, naa nay details, dili na sha kailangan na.

Marc: Design dayun?

Dominique: Yes! i-scroll nimo entire kanang page or ang account.

Marc: Unsa imo ma suggest sa among app? Visuals gyud?

Dominique: Kung events siya, yeah the events app ni siya noh, kanang it has to be when you want something or you like something or even with food or anything, first the senses you will use is your eyes, so it should be visually nice and then pleasant siya, nindot siya ba kanang attractive, kay ang eyes na gyud ang una nimo maka feel before you talk or before you even touch it or taste it, feel it, or whatever. Eyes, so dapat appealing siya. The color, the how its photographed, and how its

presented, nya a few like me, when I see a photo, I don't click a photo, and then I zoom it to see the details so dili siya nice, if dili siya kanang blurry, niya kanang dapat properly scaled ang photo na ba something dapat kung in terms of app, kung nay picture, mas attractive and I think usually mas ingana ang tao then reading the details especially the millennials now they don't like to read or they have short attention span with the picture and they read the first five words and then next and then next dili sila mo basa sa entire thing that why when you post something dapat mas concise mas better mas direct to the point and then yah kung imong thinking of the app now kung imong siyang gamiton dapat mas easy mas fast and then when they want kay kung karon nga generation gamiton mas high tech naman gud karon dili na slomo everybody wants to do it fast and want to be answered directly if naa silay inquiry you can also add to app kana bitawng pang notify na if nay mo message nimo you will have to response I think nga nana na sa Instagram og Facebook karon nga nanay mo gawas or I don't know maybe probably with our phone .

Marc: Kanang pang inquire no?

Dominique: Oo kanang mo gawas siya diritso kanang pananglitan mo suds a us aka app niya nay mo notify sa kilid I'm a mac book pro user man so inig on gani nimo niya nay mga note nga message niya reply close reply close ana ra.

Marc: Para dili na siya kailangan mo adto pagyud

Dominique: Oo my reminded nalang siya na ikaw ang app user ba or if ikaw ang nag domain ang nag admin nga app so mas ma notify ka mas nay urgency nga mo reply that's if nay inquiry or what

Marc: So unsa pamay lain pinpoints ana sa imong business kuya.

Dominique: Uhmm pinpoints what do you mean like kanang the negative

Marc: Oo, kanang problems nimo sa app ba or.

Dominique: Kana if I'm using the app for the events it should like it should have a complete details and contact number and then a brief background of what the supplier and the provider is kay para mas ma gamit siya

Marc: Niya mas ma engganyo ang mga customer

Dominique: Oo kay again with the generation now kung mo tan aw ka sa app niya kung slow gani ang app mura lang siyag maypag wla nalang ka ni download niya if mura niya gyud ang comparison of the event app with a directory let say google kana naa naman gud tanan sa google ang ilaha lang provide lang nila nimo ang kanang if you wanna see the images alone nay images and to see all the

info regarding sa imong word nga gi search key word is mo gawas sad siya so naa sad siyay map if you want map so if nay map nga ing ana events at least maka direct sila nga how to go to supplier and the supplier locate then naas sad siyay GPS system id ila nalang I search naan a tanan then kung pictures tanan picture ma provider sa ilang work sa ilang materials things ing ana kung important para ma designate kung asa na siya let say kungmo click na siya og app category so I click nimo flowers dress .

Marc: O kana naa mi ana.

Dominique: Make up, suit, cater, photographer videography so ana so kana kay ang inyoha event man dapat mas specific siya dapat ana and then of course kung nag gamit ka sa app ne click ka ani nga particular na category dapat daghan og choices duha ra useless might as well wla nalang ka ni download dapat daghan sila ray of options.

Marc, Japhet, Joshua, Mikhaelo: Salamat kaayo kuya.

**APPENDIX K****Transcript**

Interviewee

Gina Ardimar

Fe and Nicole

Gov. M. Cuenco Ave, Cebu City, 6000 Cebu

Interviewer

Marc Lennard S. Colina

Mikhayl Joshua C. Abellanosa

Mikhaelo Nheal Bongo

Japhet Titus H. Abanto

Marc: Good evening, mag interview lang mi and mag survey para sa among thesis.

Babaye: Okay sige, Pwede ikaw lang mo suwat ug basa sa mga pangutana ako lang motubag.

Marc: Sige mam no problem.

Marc: Usually imong customer mga taga diri rasad.

Gina: Oo.

Marc: Pero usually imong mga customer taga diri ra pud.

Gina: Kanang naa man pud kanang dili taga dinihi niya gi ginahan sa among service mo balik silbe imo kun amiga niya naa koy lain amiga so mo introduce kani nga salon adto mo didto blabla ana.

Marc: Pero dili kayn sila daghan kasagaran taga diri ra pud?

Gina: Dili ra.

Marc: Mas nindot ma promote gyud kay para daghan maka kita mo wla man moi Facebook no?

Gina: Wla raba sir.

Marc: Its either storya ra sa tao or makita nila ig agi ana ra no mas nindot gyud siguro na gyuy android if ever mahimo ni willing ramo mo register.

Gina: Ok ra gyud sir

Marc: Unsa gani to nga event inyong gi handolan

Gina: Debut the kanang kasal wedding kanang sa skwelahan na program an.

Marc: School parties ana

Gina: Oo naa

Marc: Birthday party naa sad mo.

Gina: Oo naa sad sir.

Marc: Nakasuway sad mo kanang sa mga business nga event te.

Gina: Na naa pud sir.

Marc: Sige mao rato te salamat.

Gina: Salamat pud sir unta nga mabuhat na ninyo inyong application bana kanang sa cellphone na no?

Marc: O te kanang ingna ani, heheh sige ari sa me thank you.

Gina: Sige balik-balik.

**APPENDIX L**

## Transcript

Interviewee

Sales Clerk

Tiamo Bella Boutique

Gov. M. Cuenco Ave, Cebu City, 6000 Cebu

Interviewer

Marc Lennard S. Colina

Mikhayl Joshua C. Abellanosa

Mikhaelo Nheal Bongo

Japhet Titus H. Abanto

Marc: Good evening mam pwede mi mang interview para ni sa among thesis.

Sales Clerk: Oo sige linkod lang mo sir.

Marc: Pila naka ka year's ani nga industry kaning sa events.

Sales Clerk: Kanang didto raba ko sa Mandaue sa una.

Marc: Ahh so mga pila man.

Sales Clerk: Kalimot ko kay di paman gud akoy ga bantay ato

Marc: Ahh so pero mga niabot nag mga years.

Sales Clerk: Oo.

Marc: Niya unsa man mga products ninyo diri.

Sales Clerk: Gowns.

Marc: gown Niya usa may mga event ga inyong.

Sales Clerk: Wedding gown ahh wedding.

Marc: Wedding unsa pa.

Sales Clerk debut.

Marc: Debu niya unsa pa mao ra duha ra.

Sales Clerk: Mo rent pud sila og kasal kanang mga mother.

Marc: Bunyag ana.

Sales Clerk: Mo tahi sauna pero karon wla namay sastre.

Marc: Dili ram o mag lisod og promote sa inyong store.

Sales Clerk: Wla gyud nag promote sa kuan ra Facebook.

Marc: Facebook ra no wla kaayo mang chat.

Sales Clerk: Naa man pud mang chat pero dili kaayo daghan.

Marc: Dili kaayo daghan kay ang among untang application kay pwede namoy register niya para kinsay mag gamit maka kita sa Facebook kay daghan man gud na sila no lisod kay makitan ba so sa amo kay I register lang ninyo makitan na pero wla pa namo gi himo ga survey palang mi daan unsa paman lain problema inyong kani diri ate.

Sales Clerk: Diri sa kuan problema sad sa kuan pagrent

Marc: Pag market lage no sa inyong mga produkto no?

Sales Clerk: Mo lage kay wla man pud maka manage.

Marc: Facebook rasad gyud inyong ginagamit karon?

Sales Clerk: Oo Facebook ra gyud mao ranay gibuhat sa akong bata

Marc: So, Kung mag wedding ate unsay gipangita nila unsa may kailangan.

Sales Clerk: Wedding gowns niya entourage kanang gowns sa entourage.

Japhet: Silay mag buot sa mga design.

Sales Clerk Silay magbuhat design niya.

Japhet: Unsa may kasagaran design mga themes ba.

Sales Clerk: Kasagaran depende raman pero karon ilang gamit kanang old rose kana nga theme old rose gani nga color niya uban sad kay green.

Japhet: Niya diba usually ang main gyud kay white.

Sales Clerk: White oo kuan sa bride kay white dyud ilaha.

Japhet: Nay uban bride green or ingana.

Sales Clerk: A wala sa ila rang entourage oo.

Marc: So, if ever makahimo mi ani nga application willing rasad mom o register libre raman na tanan ate para Makita sa mga tao inyong store ate ba kay if problema sa inyong marketing ang sa amo kay for events ra gyud na so wla gyud nay labot mag post-post sa Facebook nga rilo ing ana for events ra gyud siya if ever nay mangita fit sa inyong prices diri kita gyud niya.

Sales Clerk: Sauna nag sponsor man ang tag iya diri sa UC murag katulo, katong sa Ayala gani pero nag sponsor sad mi og gowns mga istudyante.

Marc: Sige mis mao raman siguro na thank you.

Sales Clerk: Sige! Salamat pud.

**APPENDIX M****Transcript**

Interviewee

Lany Bacunawa

Lany Unisex Salon

1077 H. Cortes St. Wireless Mandaue City

Interviewer

Marc Lennard S. Colina

Mikhayl Joshua C. Abellanosa

Mikhaelo Nheal Bongo

Japhet Titus H. Abanto

Marc: Maayong Buntag te, mag interview ko kadali ate ha. Hehe

Ms. Lany: Sige!

Marc: So, ang first te kay pila naka ka years ani nga industry?

Ms. Lany: 20 years.

Marc: Kuyawa no, Dugay-dugay napud diay. Niya so far sa 20 years unsa man ang mga problema imong ma encounter usually te?

Ms. Lany: Kang mga client nga labad-labad,

Marc: Kanang way klaro noh?

Ms. Lany: Oo, kanang mag negotiate mo unaya mo simang gyud ba.

Marc: Pero sa kanang pag promote nimo sa imong product? Dili ra?

Ms. Lany: oo okay raman.

Marc: Kasagaran imong mga customer asa man nimo makuha?

Ms. Lany: Sa social media, kay as of now, mao na baya ni ang in karun

Marc: Mga unsa sad nga social media te?

Ms. Lany: Ahh kanang facebook mana ako.

Marc: Facebook ra? Wala nay lain? So mang chat ra sila didto?

Ms. Lany: Oo mo message ra ana.

Marc: Ahh, niya sa pag coordinate nimog events, wedding man ka noh?

Ms. Lany: Oo wedding.

Marc: Walay laing event, wedding ra?

Ms. Lany: Wedding, Debut.

Marc: Ah kana mao dyuy kasagaran lagi kay sa uban wedding debut pud.

Marc; Kung mag coordinate k ate, ikay mangita sa mga resources ana?

Ms. Lany: Kung all-in ang package.

Marc: Ahh depende diay?

Ms. Lany: Oo kay naa may uban nga I itemize nila, ,mokuha sila nako as coordinator lang, mokuha sila nako as florist lang, pero naa say All-in.

Marc: Niya asa man ka manguba ana imong mga kuan (event products/services) te?

Ms. Lany: Ay daghan man kog connection. Akong mga friends nga supplier pud.

Marc: Ahh dira rapud ka kuha? Niya okay rapud ang ilang serbisyo?

Ms. Lany: Oo okay raman.

Marc: So dili ra pud ka maglisod ug pangita?

Ms. Lany: Pinili man sad na nako, akong team pinili.

Marc: So wala ra kay problema ra ana?

Ms. Lany: Wala ra man, di lang kalikayan kanang sa client ang attitude. Kasagaran baya sa mga client nga attitude noh kanang gamay kaayog budget, kanang mohangyo nimo, oy grabi heavy kaayo ka demanding.

Marc: Unya ang sa salon pud nimo te diba tig make-up pud ka noh? Unsa man kasagaran attenan anang mga events na imo gi make-up?

Ms. Lany: Ang usual dyud gyud nga moari diri sa akong shop kay kanang mo attend ug kanang wedding sponsor, kanang mga parties, events, mga ing-ana.

Marc: If kanang mga manganhi dinihi, magpa make-up? Unsa pa man?

Ms. Lany: Magpa hair nad make-up kuyog man dyud na sila.

Marc: So, if magkuan kag event te unsa man ang mga basic nga mga items or mga service na imong kailangan?

Ms. Lany: Hair and Make-up, kanang set-up.

Marc: Unsay tawag ana te?

Ms. Lany: Stylist sa venue, sounds and lights,

Marc: unya ang venue ug kanang mo decorate lahi noh?

Ms. Lany: Depende kay naa may usahay mo kuha ko ug venue niya nana sad didtoy stylist. Kung dako ang budget. Kay magdepende man gud na sa budget gud. If less ilang budget ako nalang gyuy molihok. Ako nalang dyuy mo hands on.

Marc: Ahh mangita kag imoha. So unsa to, lights and sounds, ang stylist, haird and make-up, mga cakes, sa gowns te ikaw pud?

Ms. Lany: Gowns, oo. Basta All-in. pero mangita kog , daghan mana mga supplier.

Marc: Niya tagsa tagsa-on gyud na nimog lakaw?

Ms. Lany: Oo, kay pananglitan noh, all-in? Pacakge, okay mao na akong package nila kay mao ran a ilang ma afford? So mangita kog supplier.

Marc: Ah oo, manganvass paka noh?

Ms. Lany: Oo, dili baya ko designer. So mangita kog designer nga pananglitan, naa silay shop, oy kanang, kanang, fret mao rani akong budget ana-ana, ila ra man sad nang I adjust. Ing-ana ra man gud mi.

Marc: So tagsa-tagsaon gyud nimop pangita ?

Ms. Lany: Oo, kinahanglan ilang budget dili ma short.

Marc: Hasol sad sa inyong part noh?

Ms. Lany: Oo oy, di gyud lalim mag coordination.

Marc: Niya mga gowns, unsa paman te?

Ms. Lany: Giveaways, invitation, ana.

Marc: Sa mga debut te unsay mga kailangan items sad ana?

Ms. Lany: Ang debut ug wedding popareha ra, nilahi ra sila sa ceremony.

Marc: So mao ranang duha imong gi coordinate te?

Ms. Lany: Oo, usual, naay mga pageant pero wa man kaayo.

Marc: So, if ever te nga mahimo to namo ang app, willing rapud ka mo register didto wala man dyud to bayad tnan. I register nimo imong salon, pwede man kay service mana pang make-up, ug imong kaugalingon as wedding coordinator, para makit-an kas mga taw kay kasagaran imong mga customer kay taga diri lang, or kanang mga kaila lang, what if makauyon diay sila sa imong rate diba, so makit-an ka sa laing mga taw pud.

Ms. Lany: Oo willing, Ing-ana man gyud na mga client mangitag barato.

Marc: Oo labi na nga sa among app naay recommendation so makabasa sila, hala nindot barato pa gyud. Compare compare nlng kas mga presyo didto di naka kailangan moadto sa mga lugar lugar tagsa tagsa.

Ms. Lany: Oo mahug na nga mag shopping nalng ka dira.

Marc: Bitaw ate, sige salamat kaayo.

**APPENDIX O**

## Transcript

Interviewee

Jon Dominique Roa

Idea Events and Designs Position: fashion designer

69 eagle street, Santo Nino Village, Banilad,

Cebu City, 6000 Cebu

Interviewer

Marc Lennard S. Colina

Mikhayl Joshua C. Abellanosa

Mikhaelo Nheal Bongo

Japhet Titus H. Abanto

Marc: good afternoon kuya so before anything else kuya thank you adto mga previous interviews mao jud amoam nagamit sa amoam defense cause mga questions kay answerable jud sa imong gipang ingun. like kadtong unsa ilaha kalahian sa instagram . unya ang ilaha ra jud comment sa amoam after the defense is the way we presented the app daw is we focus on the clients needs like ne hatag me unsa ilaha ganahan na price , and kung asa na location, nya ganahan sila na for both sides na. Sa supplier end ma cater ila needs like for example naay uban supplier na dili pwede ni nga item kay need og 50% na down. like in your end unsa man sad inyu kinahanglan sa client.

Dominique: so you mean like dapat ba naay mga in ana like guidelines for every products, so in ana nga case dili man gud cause your app is not one particular client noh, so if you understood the market that you are in di man jud sya pwede na kung what works with client a and works with client b so what are you going to do is probably the basic steps on how to or naa ba mo particular area on your app like pwede e tap na mu for the guidelines to booking on events atleast naa mu murag checklist bah rather than particular ninyo ang one specific supplier kay d man gud pareho tanan, so if you are targeting a wider market dili siya pwede in specific kay naa man sad uban nah

client na they can only have pay 20% in the meantime .but n declare man ka 50% so dili ka maka market so ma discourage sila, so dapat mas approachable unta ang app.

Marc: so what if kuya i optional siya kuya ?

Dominique: optional, i rathered not optional inyung term but optional probably naa lang jud moy guidelines which kana imong ganahan or gusto sa imo teacher na naa murag steps to go through or checklist. Kana man gud negotiation between the client and supplier is like having exclusivity. If you understood it will inyong app is wide kanang mu cater mo og events if ako ang client nya mu go ko sa inyu app and its purpose is directory slash advertising slash inquiry slash chatbox, or imong specific supplier pwede man mu declare sa iyang terms and condition so again so kung imo siya e specific kinahanglan naa silay form na fill upan depending sa ila terms and condition of their product.

Marc: Sakto jud kuya kay lahi man jud ang supplier and mag depende jud sila sa item na gina sold.

Dominique: That is why they should have a conversation para sila na ang mag negotiate anah nga item if pwede bah nah sya ma transact even if smaller amount imo ma down or something.

Marc: So last question kuya what are some possible entries in terms and condition.

Dominique: Possible entries ninyo is ang time table for specific supplier for example booking should be done at least 3 months before the main event, so diha na musulod ang negotiation which pila ba ang e down nimo depende sa inyu sabot. nya iyaha basic infos. Niya another thing is pwede sad ang supplier og ang app mag negotiate if naay mo book sa ilaha store through the app nay specific discount base on the said negotiation. And if naay cancelation maningil sad mi. naa man sad na terms and condition na if the clients cancel the negotiation we will ask for the cancelation fee or to the work already done and sudden cancelation.

Marc: Thank you kaayo kuya sa mga advices and tips etc.

## CURRICULUM VITAE

### **PERSONAL DATA**

NAME: Marc Lennard S. Colina

DATE OF BIRTH: November 21, 1998

ADDRESS: 1077 H. Cortes Wireless Mandaue City

GENDER: Male

CIVIL STATUS: Single

RELIGION: Roman Catholic

CONTACT NUMBER: 0932-242-4262



### **EDUCATIONAL BACKGROUND**

COLLEGE: Bachelor of Science in Information Technology

University of Cebu – Banilad Campus

Banilad, Cebu City

School Year 2015 – Present

HIGH SCHOOL: Marie Ernestine School

Talamban Highway, Bacayan Talamban

Cebu City, 6000 Cebu

School Year 2011 – 2015

ELEMENTARY: Marie Ernestine School

Talamban Highway, Bacayan Talamban

Cebu City, 6000 Cebu

School Year 2005 – 2011

**PERSONAL DATA**

NAME: Mikhayl Joshua C. Abellanosa

DATE OF BIRTH: December 26, 1993

ADDRESS: Old Bonifacio St., Banilad, Cebu City

GENDER: Male

CIVIL STATUS: Single

RELIGION: Roman Catholic

CONTACT NUMBER: 09266912158

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**EDUCATIONAL BACKGROUND**

COLLEGE: Bachelor of Science in Information Technology

University of Cebu – Banilad Campus

Banilad, Cebu City

School Year 2016 – Present

Bachelor of Science in Mechanical Engineering

University of San Carlos – Talamban Campus

Talamaban, Cebu City

School Year 2010 – 2016

HIGH SCHOOL: Leaton School

P. Lebumfacil Street, Sangi, Toledo City

School Year 2006 – 2010

ELEMENTARY:      Westbay Learning Center

Sangi, Toledo City

School Year 2000 - 2004

Leaton School

P. Lebumfacil Street, Sangi, Toledo City

School Year 2004 – 2006

**PERSONAL DATA**

Name: Mikhaelo Nheal Bongo

Date of Birth: Cebu City

Address: 629 Gov. Cuenco Ave., Banilad, Cebu City

Gender: Male

Marital Status: Single

Religion: Roman Catholic

Cellphone No: 09333126984

**EDUCATIONAL BACKGROUND**

COLLEGE: University of Cebu-Banilad  
Banilad, Cebu City

Bachelor of Science in Information Technology  
June 2015 to present

HIGH SCHOOL: Marie Ernestine School  
Talamban Highway, Bacayan Talamban,  
Cebu City, 6000 Cebu

School Year 2011- 2015

ELEMENTARY: Marie Ernestine School  
Talamban Highway, Bacayan Talamban,  
Cebu City, 6000 Cebu

Graduated 2011

**PERSONAL DATA**

NAME: Japhet Titus Abanto

DATE OF BIRTH: July 22, 1998

ADDRESS: Nasipit, Talamban Cebu City

GENDER: Male

CIVIL STATUS: Single

RELIGION: Foursquare

CONTACT NUMBER: 09395681767/ 09567631171

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**EDUCATIONAL BACKGROUND**

COLLEGE: Bachelor of Science in Information Technology

University of Cebu – Banilad Campus

Banilad, Cebu City

School Year 2015 – Present

HIGH SCHOOL: Sevilla National High School

Poblacion, Sevilla, Bohol

School Year 2011 – 2015

ELEMENTARY: Sevilla Central Elementary School

Poblacion, Sevilla, Bohol

School Year 2005 – 2011