

Child Cloud Management System Project Proposal

By

Dolawat	Wannapira	572115022
Suradis	Sutampang	572115058

Department of Software Engineering
College of Arts, Media and Technology
Chiang Mai University

Project Advisor

Dr. Chartchai Doungsa-ard

Document History

Document Name	Version	Status	Date	Viewable	Editable	Responsible
Proposal_0.1	<ul style="list-style-type: none"> - Add Abstract - Add Chapter 2 <ul style="list-style-type: none"> - Business Review - Technology Review - Development Tools Review - Add Chapter 3 <ul style="list-style-type: none"> - Quality Standard - Add Chapter 4 <ul style="list-style-type: none"> - Motivation - Aims and Objective - System Architecture - Deliverable and limits 	Draft	19/05/2017	DO,SU,CC	DO,SU	DO,SU
Proposal_0.2	<ul style="list-style-type: none"> - Add Software Process - Add Schedule & Milestones 	Draft	23/05/2017	DO,SU,CC	DO,SU	DO,SU
Proposal_0.3	<ul style="list-style-type: none"> - Add Chapter 1 <ul style="list-style-type: none"> - Introduction & Background - Edit Schedule & Milestones - Add Reference 	Draft	24/05/2017	DO,SU,CC	DO,SU	DO,SU
Proposal_0.4	<ul style="list-style-type: none"> - Edit Business Review - Update Milestone 	Draft	25/05/2017	DO,SU,CC	DO,SU	DO,SU
Proposal_0.5	<ul style="list-style-type: none"> - Edit Business Review - Edit Technology Review - Edit Abstract 	Draft	02/06/2017	DO,SU,CC	DO,SU	DO,SU
Proposal_0.6	<ul style="list-style-type: none"> - Edit Introduction & Background - Edit Business Review 	Draft	06/06/2017	DO,SU,CC	DO,SU	DO,SU
Proposal_0.7	<ul style="list-style-type: none"> - Edit Introduction & Background - Edit Software Architecture 	Draft	08/06/2017	DO,SU,CC	DO,SU	DO,SU
Proposal_0.8	<ul style="list-style-type: none"> - Add Cover & Table of Contents - Edit Introduction & Background - Edit Business Review - Edit Deliverable and limits 	Draft	14/06/2017	DO,SU,CC	DO,SU	DO,SU

DO = DOLAWAT WANNAPIRA
 SU = SURADIS SUTAMPANG
 CC = DR. CHARTCHAI DOUNGSA-ARD

Document Name	Proposal_0.8	Owner	Dolawat,Suradis	Page	2/23
Document Type	Proposal	Release Date	25/05/2017	Print Date	25/05/2017

Table of contents

Contents	Pages
ABSTRACT	4
CHAPTER ONE Introduction & Background	5
CHAPTER TWO Literature Review	6
2.1 Business Review	6
2.1.1 Foundation for Children Workflow	6
2.1.2 Web-Based Information System	7
2.1.3 Baby Connect	8
2.2 Technology Review	9
2.2.1 Salesforce Framework	9
2.2.2 Apex	10
2.2.3 SOQL	11
2.3 Development Tools Review	12
2.3.1 Force.com	12
CHAPTER THREE Quality Standard	13
3.1 ISO 29110 for Very Small Entity (VSE)	13
3.1.1 Project Management Process	13
3.1.2 Software Implementation Process	13
CHAPTER FOUR Project Plan	14
4.1 Motivation	14
4.2 Aim and objectives	14
4.2.1 Aim	14
4.2.2 Objectives	14
4.3 Deliverables and limits	15
4.3.1 Deliverables	15
4.3.1.1 System Architecture	15
4.3.2 Document	16
4.3.3 Limits	16
4.4 Software Process	17
4.5 Schedule & Milestones	18
PROJECT MILESTONE	19
REFERENCES	23

Document Name	Proposal_0.8	Owner	Dolawat,Suradis	Page	3/23
Document Type	Proposal	Release Date	25/05/2017	Print Date	25/05/2017

ABSTRACT

Nowadays, The document management in Thailand is difficult, Because most of the company are still use the papers document it makes them hard to organize. Moreover, information-losing while they collect or sending the document to other corporate.

Foundation for children are use the papers document to handle the children information. Moreover, The amount of information of each child in the foundation has a lot. Therefore, the documents that are used for each child so much as it is. Such as Children's Family Information, Health before FCC Information, Health after FCC Information, Doctor Visit Record Information, Children Growth Information, Medical Management Information, Etc.

The cloud system management will be used to handle the document information of Foundation for children that help the foundation to collect the information of children on cloud storage and also easy to update the information or to send the information to another foundation.

Document Name	Proposal_0.8	Owner	Dolawat,Suradis	Page	4/23
Document Type	Proposal	Release Date	25/05/2017	Print Date	25/05/2017

CHAPTER ONE| Introduction & Background

Nowadays, There are many problems in Thai society, and the orphaned carelessness problem is the problems that have to solve as soon as possible because orphaned are lack education, lack of moral training. Due the social and economic conditions makes children lack parental care far or be orphan.

Foundation for children (FFC) ^{was} established for helping children that their parents are not ready to taking care, orphan, and children who have been violated from suffering such as being abused, abandoned and illegal labor to have a better life. Encourage the family role and improve the quality of life of the children such as health, EQ, mental, education, and make the children can live with others in society.

Foundation for Children including Baan Tantawan (Newborn – 4 years), Moo Baan Dek Saanrak Kindergarten (4 years – 8 years), and Moo Baan Dek (More than eight years).

The problems among all of three sections are about to send the document information among each of them, paper document losing while they are collecting or sending, and can not update the document.

Corporate Social Responsibility (CSR) is business practice to benefit society. A Social Responsibility business has various tactics to give away a portion of company's proceeds to charity. There are four broad categories of social responsibility that the companies are practicing including Environmental efforts, Philanthropy, Ethical labor practices, and Volunteering. CRM Cloud company is the Software House, and they implement the customizing software to the customer. They establish CRM-Charity Foundation aim to help the people by using their expertise in cloud computing and IT consulting technology to improving people's education and also helping the non-profit organization in the area of technologies. They undertake to help Foundation for Children by giving ten licenses of Salesforce, is a cloud-based software, and customizing the software to keep the children information on cloud.

With the collaboration of CAMT and CRM Cloud, they decide to develop a web-based application called Child Cloud Management System (CCMS) that help the Foundation for children to manage their child information easier and prevents the children information losing and to enhance the management of children information. Some part of this project is customized by the previous senior's project. We continue to implement in part of child development information, education information and forward information.

What will you do??
how it will help??

Document Name	Proposal_0.8	Owner	Dolawat,Suradis	Page	5/23
Document Type	Proposal	Release Date	25/05/2017	Print Date	25/05/2017

CHAPTER TWO| Literature Review

2.1 Business Review

2.1.1 Foundation for Children Workflow

The workflow of the Foundation for Children(FFC) is receiving the report from an informer, then analyze the information that matches with the conditions of orphan or not, if the children match the condition, the FFC will notify appointment to child-parent.

Handwritten: Child-parent must decide to send their child to FFC or not. If child-parent decide to send their child to the foundation, then the foundation will input the information of child into the document and send the children to “Baan Tantawan” for taking care of children.

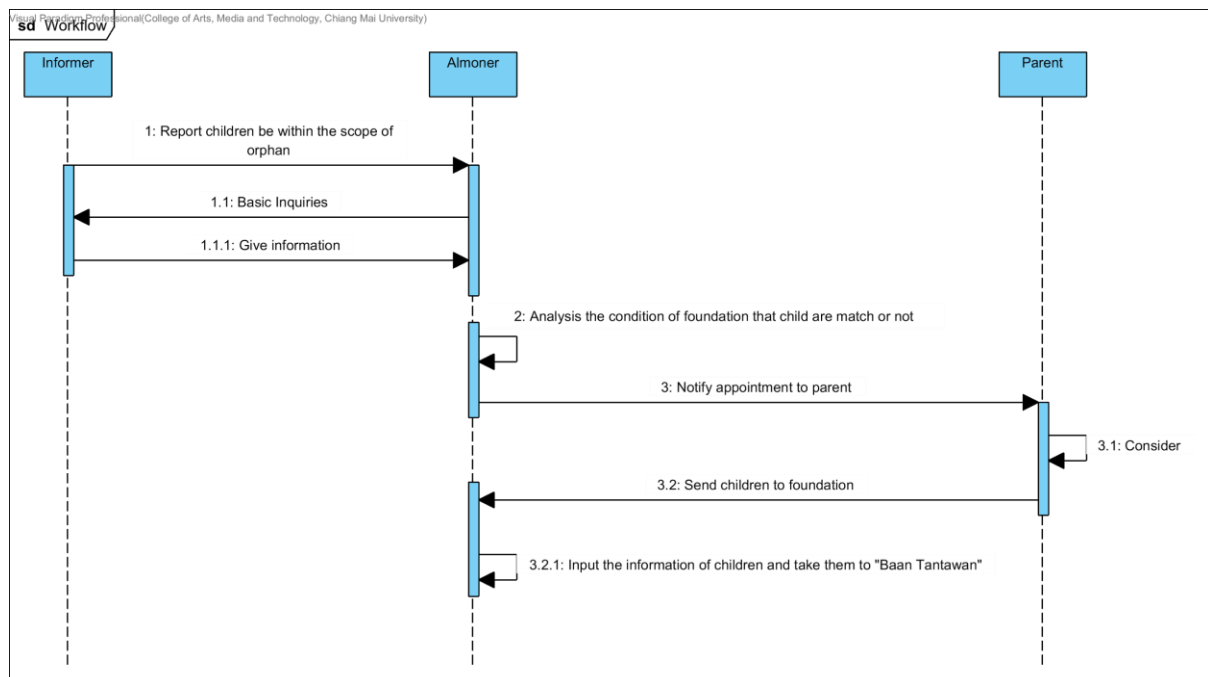


Figure 1: The Sequence Diagram of Foundation for Children Workflow

Handwritten: What a boat flow from one place to the other??

Document Name	Proposal_0.8	Owner	Dolawat,Suradis	Page	6/23
Document Type	Proposal	Release Date	25/05/2017	Print Date	25/05/2017

CCms ??

2.1.2 Web-Based Information System

Web-Based Information System is the web application that seniors student creates for helping to manage the information of orphan in Foundation of Children. This web-application is using Salesforce framework to developing.

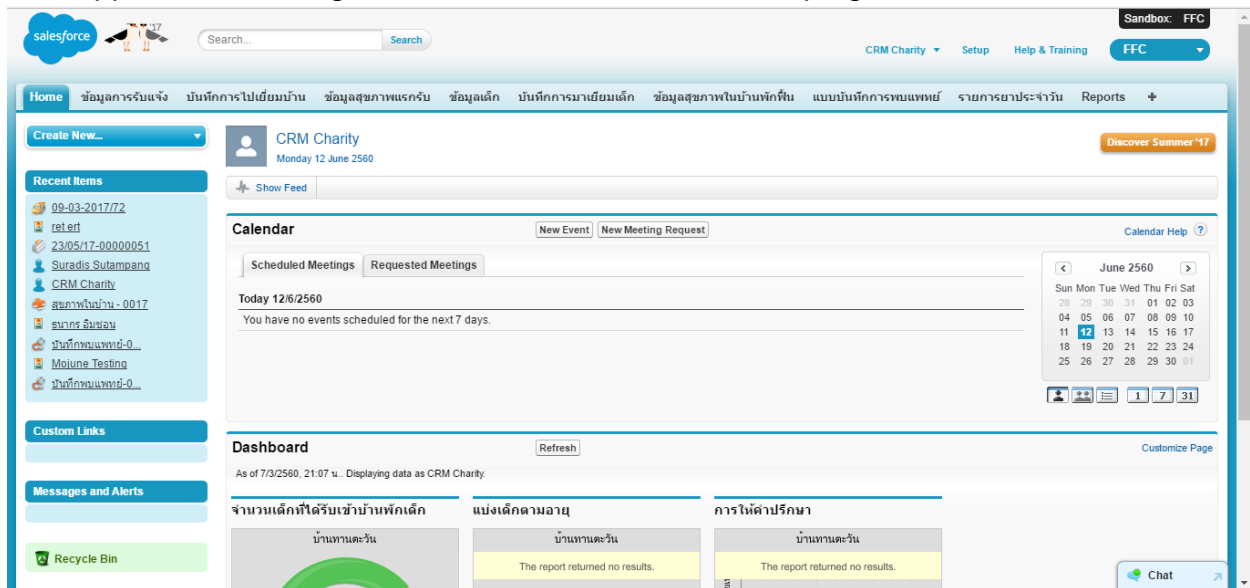


Figure 2: The User interface of "Web-Based Information System."

~~Pros~~ Currently the app do ...

This web-application classified each information and provided user to recording and updating child information and stored the information onSalesforce cloud storage. Each page information is including thirteen-page followings this list.

- Inform Information
- Children Information
- Children's Family Information
- Visited Home Information
- Health before FCC Information
- Health after FCC Information
- Doctor Visit Record Information
- Children Growth Information
- Medical Management Information
- Legal Information
- Special Record Information
- Child Sponsorship Information
- Reason for Leaving Information

Document Name	Proposal_0.8	Owner	Dolawat,Suradis	Page	7/23
Document Type	Proposal	Release Date	25/05/2017	Print Date	25/05/2017

2.1.3 Baby Connect

Baby Connect is the most comprehensive baby tracking application on the AppStore and Play Store. It has graphical reports and trending charts, weekly averages, medicine, vaccine and growth tracking, timers, notifications, emails, .csv export, an easy to use interface, unlimited data, and it is the only application that allows you to exchange information in real time with your spouse, babysitter, nanny or daycare.



Figure 3: The User interface of “Baby Connect.”

Pros

1. The application provides a simple user interface.
2. The application provides record child information.
3. The application is design for maximum security. Everything is password protected.

Cons

1. This application has to pay before use.

Document Name	Proposal_0.8	Owner	Dolawat,Suradis	Page	8/23
Document Type	Proposal	Release Date	25/05/2017	Print Date	25/05/2017

2.2 Technology Review

2.1.1 Salesforce Framework

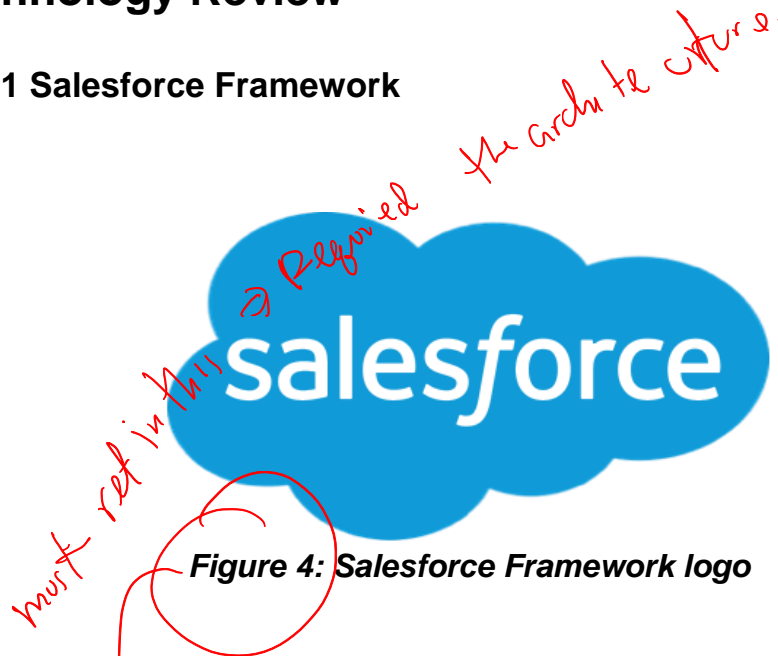


Figure 4: Salesforce Framework logo

Salesforce Framework Builder gives developer easy-to-use tools to modify characteristics the data, as well as specify the scope of applications or the layout of data on a page. The developer can also define workflows based on user interaction with data, or create reports on the data. The developer can use buttons or custom links to extend the default capabilities of their Force.com application. The developer can set up and modify tabs, which can be associated with a Force.com object, Visualforce page, s-control or any web page. The developer can give users access to tabs, and the user can customize the display of their set of tabs within an application.

Reasons to Use:

1. This framework is especially for force.com.
2. This framework has many components to use.
3. This framework can work with others framework.
4. This framework uses Model-View-Controller paradigm.

Document Name	Proposal_0.8	Owner	Dolawat,Suradis	Page	9/23
Document Type	Proposal	Release Date	25/05/2017	Print Date	25/05/2017

2.2.2 Apex



Figure 5: Apex logo

Apex is a strongly typed, object-oriented programming language that allows developers to execute flow and transaction control statements on the Force.com platform server in conjunction with calls to the Force.com API. Using syntax that looks like Java and acts like database stored procedures, Apex enables developers to add business logic to most system events, including button clicks, related record updates, and Visualforce pages. Apex code can be initiated by Web service requests and from triggers on objects.

Reasons to Use:

1. This language support for common Force.com platform
2. This language provides built-in support for unit test creation and execution
3. This language is automatically updated when Force.com platform are upgraded

Document Name	Proposal_0.8	Owner	Dolawat, Suradis	Page	10/23
Document Type	Proposal	Release Date	25/05/2017	Print Date	25/05/2017

2.2.3 SOQL



Figure 6: SOQL logo

Dynamic SOQL refers to the creation of an SOQL string at runtime with Apex code. Dynamic SOQL enables you to create more flexible applications. For example, you can create a search based on input from an end user, or update records with different field names.

Reasons to Use:

1. This database is a Salesforce build-in.
2. This database could retrieve data from a single object or from multiple objects that are related to one another.
3. This database could count the number of records that meet specified criteria.
4. This database could sort results as part of the query.
5. This database could retrieve data from number, date, or checkbox fields.

Document Name	Proposal_0.8	Owner	Dolawat,Suradis	Page	11/23
Document Type	Proposal	Release Date	25/05/2017	Print Date	25/05/2017

2.3 Development Tools Review

2.3.1 Force.com



Figure 7: Force.com logo

Force.com is a Platform as a Service (PaaS) product designed to simplify the development and deployment of cloud-based applications and websites. Developers can create apps and websites through the cloud IDE (Integrated Development Environment) and deploy them quickly to Force.com's multi-tenant servers.

Reasons to Use:

1. This platform is especially for Salesforce.
2. This platform builds apps lightning fast with drag and drop tools.
3. This platform customizes your data model with clicks.
4. This platform customize your UI with clicks or go further with HTML

Document Name	Proposal_0.8	Owner	Dolawat, Suradis	Page	12/23
Document Type	Proposal	Release Date	25/05/2017	Print Date	25/05/2017

CHAPTER THREE| Quality Standard

3.1 ISO 29110 for Very Small Entity (VSE)

ISO/IEC 29110-4-1:2011 applies to Very Small Entities (VSEs). A Very Small Entity (VSE) is defined as an enterprise, organization, department or project having up to 25 people. A set of standards and guides have been developed according to a set of VSEs' characteristics and needs. The guides are based on subsets of appropriate standards elements, referred to as VSE profiles. The purpose of a VSE profile is to define a subset of International Standards relevant to the VSE context.

3.1.1 Project Management Process

The purpose of the Project Management process is to establish and carry out the tasks of the software implementation project in a systematic way, which allows compliance with the project's objectives in terms of expected quality, time, and costs. Project Manager contains four main activities.

Selected processes

- 3.1.1.1 Project planning process
- 3.1.1.2 Project plan execution process
- 3.1.1.3 Project assessment and control process
- 3.1.1.4 Project closure process

3.1.2 Software Implementation Process

The purpose of the Software Implementation process is to achieve the systematic performance of the analysis, design, construction, integration, and test activities for new or modified software products according to the specified requirements.

Selected processes

- 3.1.2.1 Software implementation initiation process
- 3.1.2.2 Software requirement analysis process.
- 3.1.2.3 Software architectural and detailed design process
- 3.1.2.4 Software construction process.
- 3.1.2.5 Software integration and test process.
- 3.1.2.6 Software delivery process.

Document Name	Proposal_0.8	Owner	Dolawat,Suradis	Page	13/23
Document Type	Proposal	Release Date	25/05/2017	Print Date	25/05/2017

CHAPTER FOUR | Project Plan

4.1 Motivation

The Foundation for Children concern about the losing of children information and difficult to update the data. As the volunteer, we expect that cloud technology can resolve these problems. Therefore, we interested to customize the “Child Cloud Management System.” Child Cloud Management System is the web-based application that keeps the information on the cloud system. It can help the users to access the children information easier, prevent the children information losing, to enhance the ability to manage the information such as update information and define the authorization of each user.

4.2 Aim and objectives

4.2.1 Aim

1. Provide users to input the education information systematically.
2. Provide users to input the development information systematically.
3. Provide users to access the information from authorization.

4.2.2 Objectives

The purpose of the web application is to provide the users to manage children easier and decrease the hidden costs associated. It helps the users to:

- Easy to manage the children education information.
- Easy to view the children's education information.
- Easy to assess children's development.
- Easy to forward information.

Document Name	Proposal_0.8	Owner	Dolawat, Suradis	Page	14/23
Document Type	Proposal	Release Date	25/05/2017	Print Date	25/05/2017

4.3 Deliverables and limits

4.3.1 Deliverables

4.3.1.1 System Architecture

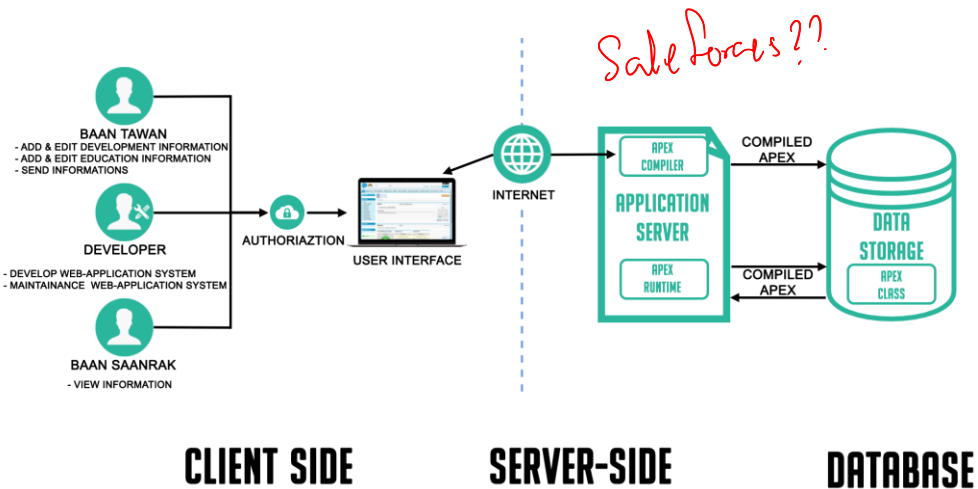


Figure 8: Child Cloud Management System Architecture

This system consists of three parts. The first one is a client-side part, the user login by using Salesforce system, record children development, and education information. Each user has a different role to use this web application by limit the authorization. Next, the server-side part is using to communicate with web application and database. The web application will send a request to the platform application server, and the server will respond to the web application. Finally, the database, it for store the data that necessary in the system.

When a developer writes and saves Apex code to the platform, the platform application server first compiles the code into an abstract set of instructions that can be understood by the Apex runtime interpreter and then saves those instructions as metadata. When an end-user trigger the execution of Apex, perhaps by clicking a button or accessing a Visualforce page, the platform application server retrieves the compiled instructions from the metadata and sends them through the runtime interpreter before returning the result. The end-user observes no differences in execution time from standard platform requests.

Document Name	Proposal_0.8	Owner	Dolawat, Suradis	Page	15/23
Document Type	Proposal	Release Date	25/05/2017	Print Date	25/05/2017

4.3.2 Document

- Proposal
- Project plan
- Software requirement specification
- Software design document
- Testing document
- Traceability record
- Software quality assurance document

4.3.3 Limits

1. This web application allows only ten users.
2. This web application support only Thai and English(Thai mostly).

feature

Document Name	Proposal_0.8	Owner	Dolawat, Suradis	Page	16/23
Document Type	Proposal	Release Date	25/05/2017	Print Date	25/05/2017

4.4 Software Process

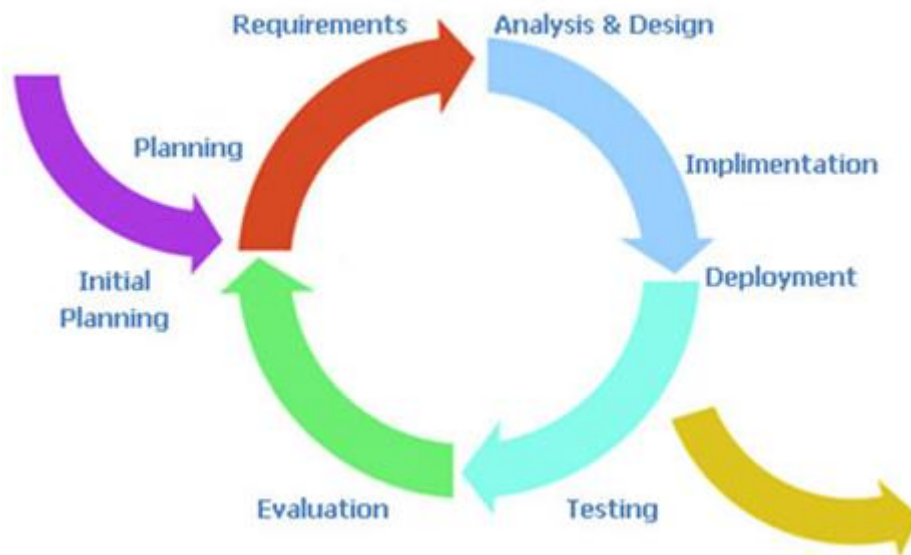


Figure 9: Iterative process model

Iterative Development is a cycling development from gathering the requirements until delivering functionality. This process will break down the process into phase then repeat. At each iterative mean new function will be added.

Therefore, The Child Cloud Management System using the iterative process because It is developing software feature to feature. It will release the complete parts to users for using then continue to implement other parts.

Document Name	Proposal_0.8	Owner	Dolawat,Suradis	Page	17/23
Document Type	Proposal	Release Date	25/05/2017	Print Date	25/05/2017

4.5 Schedule & Milestones

Explain further in Objective

The schedule of the “Child Cloud Management System” is the timeline to guide the team developer for releasing the functionality on time.

Process 1: Proposal

Process 2 (Progress I):

Feature #1: Preschool child development data management for organization.

Description: This feature provides the ability to manage and track child development for a preschool child for the organization.

Details:

- The User can create child's development.
- The User can view child's development skill.
- The User can edit child's development skill.

Process3 (Progress II):

Feature #2: School age child education data track for the organization.

Description: This feature provide the ability to track child education for school age child for the organization.

Details:

- The User can view child's education.

Process4 (Final Progress):

Feature #3: School age child education data management for school.

Description: This feature provide user to view development and manage education data.

Details:

- The User can view child's development.
- The User can create child's education.
- The User can view child's education.
- The User can edit child's education.

Document Name	Proposal_0.8	Owner	Dolawat,Suradis	Page	18/23
Document Type	Proposal	Release Date	25/05/2017	Print Date	25/05/2017

PROJECT MILESTONE

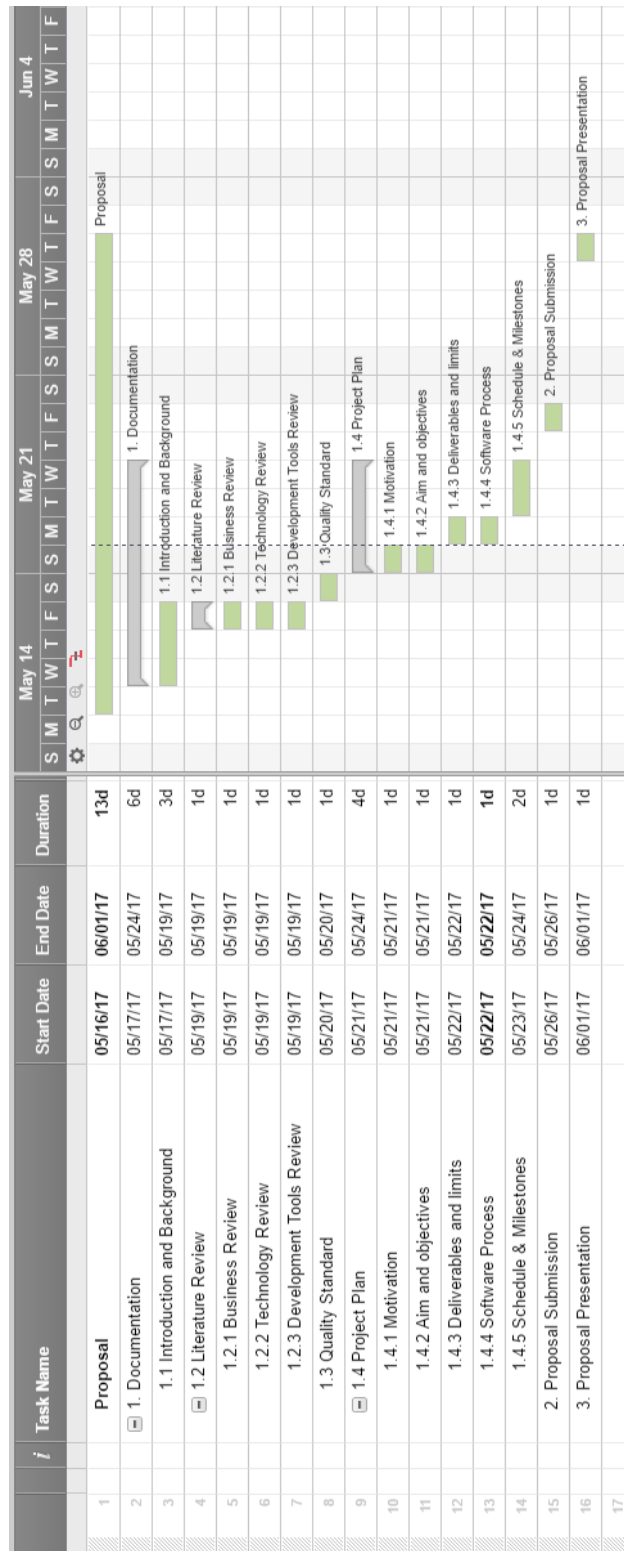


Figure 10: Proposal milestone

Document Name	Proposal_0.8	Owner	Dolawat,Suradis	Page	19/23
Document Type	Proposal	Release Date	25/05/2017	Print Date	25/05/2017

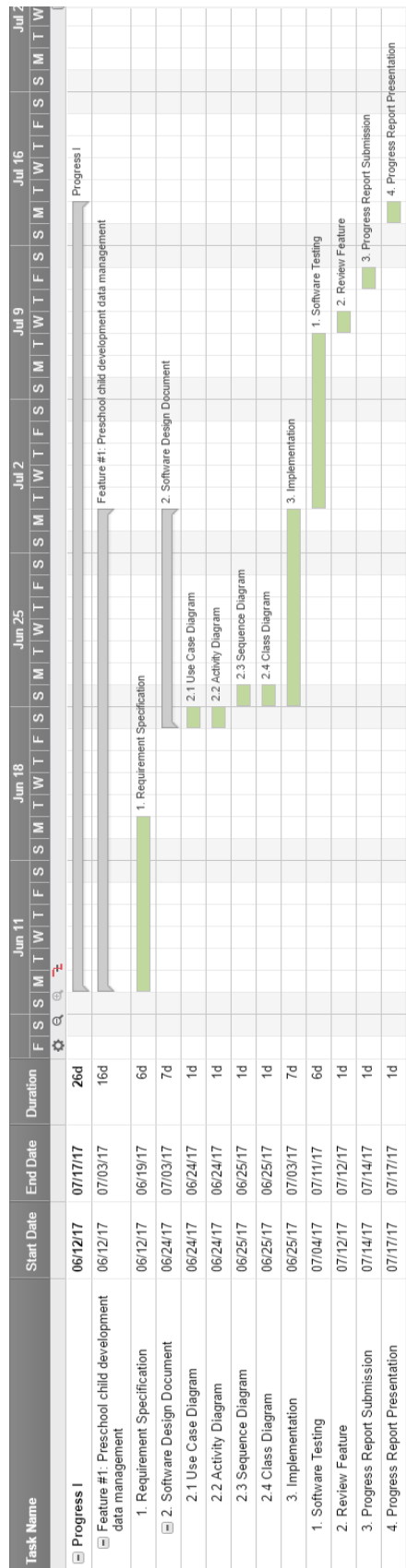


Figure 11: Progress I Milestone

Document Name	Proposal_0.8	Owner	Dolawat,Suradis	Page	20/23
Document Type	Proposal	Release Date	25/05/2017	Print Date	25/05/2017

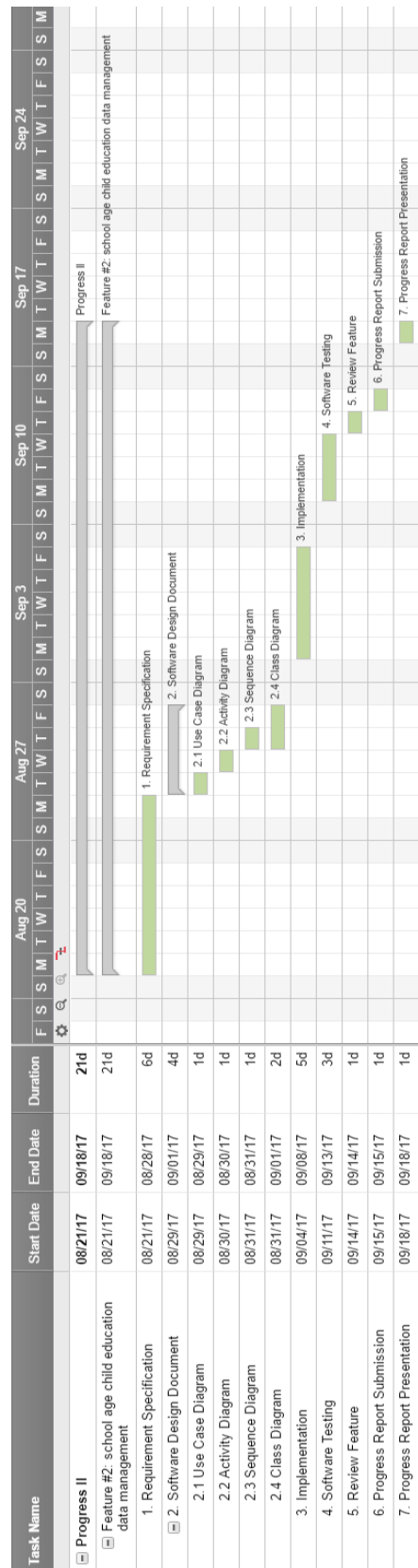


Figure 12: Progress II Milestone

Document Name	Proposal_0.8	Owner	Dolawat,Suradis	Page	21/23
Document Type	Proposal	Release Date	25/05/2017	Print Date	25/05/2017

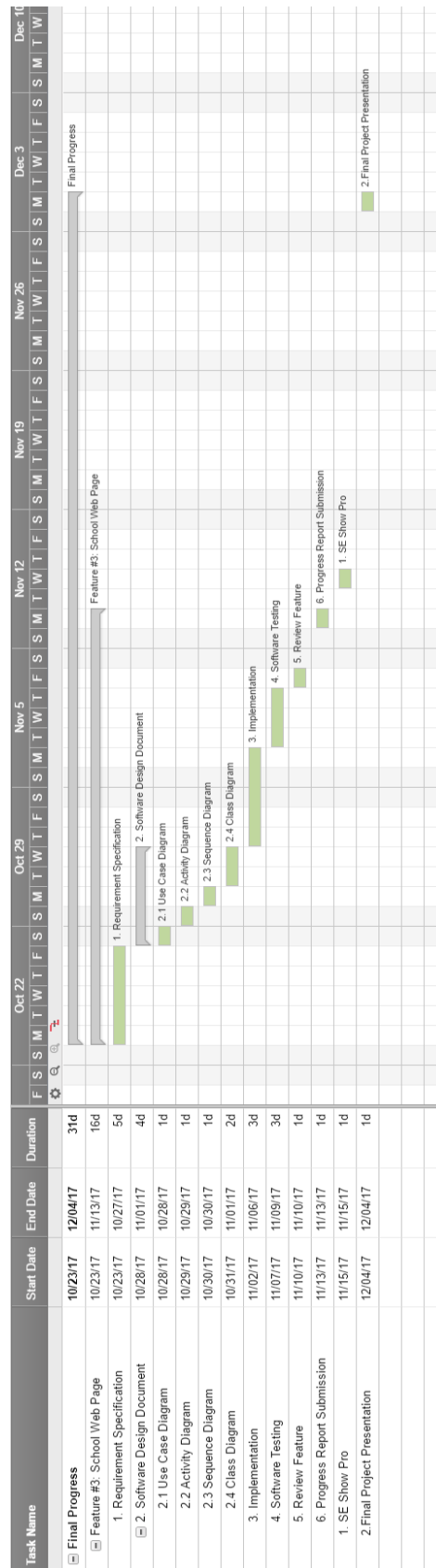


Figure 13: Final Progress Milestone

Document Name	Proposal_0.8	Owner	Dolawat,Suradis	Page	22/23
Document Type	Proposal	Release Date	25/05/2017	Print Date	25/05/2017

REFERENCES

[1] Baby Connect

- <https://www.baby-connect.com/>

[2] Salesforce Framework

- https://developer.salesforce.com/page/Application_Framework

[3] Apex

- https://developer.salesforce.com/docs/atlas.en-us.apexcode.meta/apexcode/apex_intro_what_is_apex.htm

[4] SOQL

- https://developer.salesforce.com/docs/atlas.en-us.apexcode.meta/apexcode/apex_dynamic_soql.htm

[5] Force.com

- <http://searchsalesforce.techtarget.com/definition/Forcecom>

[6] ISO 29110 for Very Small Entity (VSE)

- <https://www.iso.org/standard/51154.html>

Document Name	Proposal_0.8	Owner	Dolawat, Suradis	Page	23/23
Document Type	Proposal	Release Date	25/05/2017	Print Date	25/05/2017