Project Proposal

fastphoto

Presented to

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1. Introduction and Organization Background

Nowadays, photography is an important part of special events, such as graduation ceremonies, weddings, etc. So, finding a decent photographer for capturing beautiful and memorable moment is necessary.

However, they still do not have an officially centralize system for customers and photographers to communicate with each other. Consequently, there are many problems and inconvenience. For example, users may not know where to find a suitable photographer, photographers have few approach to dealing with users.

Our team concern all the above problems, so we decide to create a centralized platform to match decent photographer with customer preference.

2. Problem statements

Table 1 : Problem statement list

Item	Problem	Cause	Effect	Solution
1	It is hard for customers to find photographer	Customers can search for a photographer at the time and need to gather all the information by themselves.	Customers spend a lot of time searching photographer	Provide a platform that has lists of photographer
2	It is hard for photographers to find customers	There is not enough space or platform for photographers to advertise and promote themselves.	Photographers undergo low employment rate problem	Provide a platform that customers can easily approach photographer
3	Comparing photographers is inconvenient for users	The works of each photographer are seperated	Customers are hard to find a photographer that meet their needs	Categorize photographer by photo style, price range and location to help customers compare photographers easily
4	Customers or photographers cheat another	One side break the appointment	Another one lost the benefits	Penalty for the one who breaks an appointment

5	Unclear agreement	Misunderstanding in work concept or price	Resentment and unpleasant outcome.	Provide clear confirmation form

3. Objective

This project objective is to provide a web and an application for matching photographers and users. To illustrate, users can access a photographer's profile and photographers can create their own profile. In addition, this project provides chat rooms, appointment management and payment service.

The project's expectation is to develop a match-maker system that can provide appropriate photographers to users according to their preference by creating and designing a convenient system with high security which users can easily understand the system.

4. As-is System

The as-is system for users to find a photographer for special events is that users have to find the photographer from many platforms and sources, for example, search engines like Google, social media like Facebook and Instagram. As a result, it is hard for users to find a photographer specializing in-demand field. Once users want to find a photographer, they have to explore social media or search engines. Then they have to scan the photographer's profile from the provided website or social media timeline whether the photographer's style is appropriate with the event or not. Once users find the right photographer, they have to contact the photographer by chatting or calling for more information about price rate and work location. After that, users have to manually make a payment transaction to the photographer by bank transfer or cash at the event. The diagram of the system shown in figure 1.

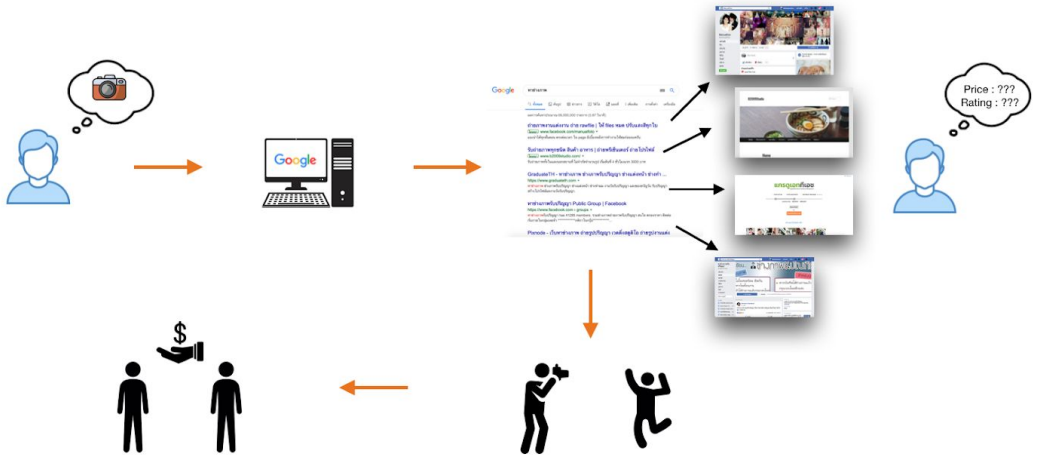


Figure 1 : The workflow of the as-is system

5. To-be System

The as-is system has 5 main problems to solve (stated in the problem statement). Thus, the to-be system shall be able to provide a platform that has lists of photographer and categorize photographer by photo style, price range and location to help customers compare photographers easily. Moreover, the to-be system shall be able to commit penalty for the one who breaks an appointment. Finally, the to-be system shall provide standard legal confirmation form to decrease and prevent cheating. The diagram of the system shown in figure 2.

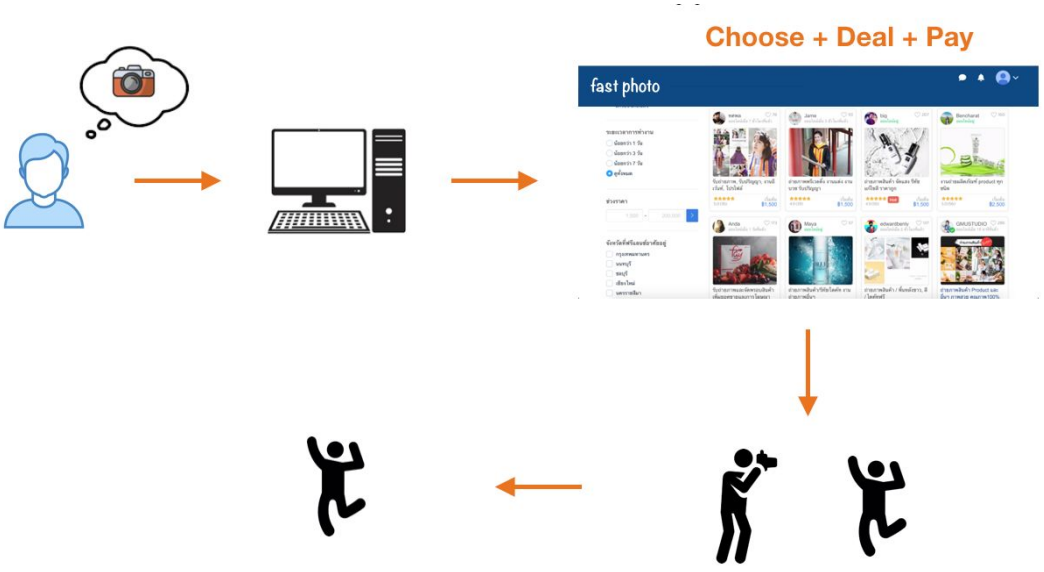


Figure 2 : The workflow of the to-be system

6. Scope of Work

The scope of work contains 5 parts, which are derived from the requirements.

6.1. Registration system

6.2. Customer's system

6.3. Photographer's system

6.4. Payment system

6.5. Administrator system

7. Definition

Table 2 : Definition list

Term	Definition
System	Photographer-customer matching system on application and web service
Photographer	Photographers who are members of our system and use it to find customers.
Customer	People who are members of our system and use it to find photographers.
User	People who use our system.
Administrator	People or person who manage or maintain the system.
Sponser	People or person who own our company.
Chat room	Communication channel between a customer and a photographer.
Work information	types of work, price, service time and warranty

8. System Requirements

8.1 Functional requirements

8.1.1. Registration system

8.1.1.1. Customer registration system

a. The system shall allow the customer to create an account.

b. The system shall allow the customer to update an account information.

c. The system shall allow the customer to delete an account.

8.1.1.2. Photographer registration system

a. The system shall allow the photographer to create an account.

b. The system shall allow the photographer to update an account information.
c. The system shall allow the photographer to delete an account.

8.1.2. Customer service

8.1.2.1. The system shall allow the customers to search for photographers filtered by price, rating, location and photo style.

8.1.2.2. The system shall allow the customers to request the service

8.1.2.3. The system shall allow the customers to cancel the appointment

8.1.2.4. The system shall allow customers to contact photographers via chat room

8.1.2.5. The system shall allow customers to rate photographers

8.1.2.6. The system shall allow customers to report photographers

8.1.3. Photographer service

8.1.3.1. The system shall allow the photographer to create work information.

8.1.3.2. The system shall allow the photographer to update work information.

8.1.3.3. The system shall allow the photographer to delete work information.

8.1.3.4. The system shall allow photographers to contact customers via chat room.

8.1.3.5. The system shall allow the photographers to accept customer request and make an appointment.

8.1.4. Payment service

8.1.4.1. The system shall allow the photographers to request additional costs.

8.1.4.2. The system shall allow the customers to accept additional costs.

8.1.4.3. The system shall allow the customers to decline additional costs.

8.1.4.4. The system shall allow the customers to pay a deposit of 30% of the price before photographers operate their service.

8.1.4.5. The system shall allow the customers to pay by credit-card.

8.1.4.6. The system shall allow the customers to pay by internet banking.

8.1.5. Administrator system

8.1.5.1. The system shall allow the administrator to edit payment information.

8.1.5.2. The system shall allow the administrator to edit registration data.

8.1.5.3. The system shall allow the administrator to add advertisements to website.

8.1.5.4. The system shall allow administrator to add members to blacklist.

8.1.5.5. The system shall allow the administrator to accept the problem report from users.

8.2 Non-functional requirements

8.2.1. Operational requirements

8.2.1.1. The system shall operate on any devices.

8.2.1.2. The system shall operate on any operating systems.

8.2.1.3. The system shall operate on most web browsers including Google Chrome, Internet Explorer, Microsoft Edge, Firefox and Safari.

8.2.1.4. The system shall be able to operate with more than 1000 active users.

8.2.2. Performance requirements

8.2.2.1. The system shall have responding time for home page within 3 seconds.

8.2.2.2. The system shall have responding time for search results within 2 seconds.

8.2.2.3. The system shall have responding time for verifying payment within 5 seconds.

8.2.2.4. The system shall have responding time for logging in within 3 seconds.

8.2.2.5. The system shall have responding time for photographers edit information within 4 seconds.

8.2.2.6. The system shall have responding time for each conversation in chat room within 2 seconds.

8.2.3. Security requirements

8.2.3.1. The system shall be able to give a penalty to the one who break an appointment.

8.2.3.2. The system shall provide an agreement document to customers and photographers.

8.2.3.3. System shall allow only administrators to access user data.

8.2.3.4. System shall use third-party services for payment.

8.2.4. Cultural and political requirements

8.2.4.1. The system shall support the Thai language.

8.2.4.2. The system shall use date dd-mm-yyyy format.

8.2.4.3. The system shall use current local time in Thailand (UTC + 07:00).

8.2.4.4. The system shall use 24-hour time format.

9. Constraints

1. The website shall finish before the end of November.
2. The payment system shall have high security in terms of customers' financial information such as credit card number.
3. Customers and admin must have a mobile phone or computer connecting to the internet while accessing the website.
4. Customers must register, retype password and fill some demographic information such as first name, last name, date of birth, address and telephone number before purchasing the services on the website.
5. Users must have an email account to register and login for accessing the website.
6. Photographers must specify identification number when register an account.
7. In order to edit registration information, photographers have to verify new information with evidence.

10. Project Team Structure

Assign staff based on individual skill.

Table 3 : Project Team

Role	**Name**	**Reason**
1. Project Manager	- Natthanon Manop	- High management skill. - High communication skills.

		- Available to contact the project sponsor more often than other members.
2. Technical Leader	- Suchut Sapsathien	- High Leadership skill. - Has wide knowledge about web programming.
3. Business Developer Manager	- Karnkitti Kittikamron	- High critical thinking skill. - Has good amount of knowledge about business.
4. Tester	- Nuttrawanee Kitwatthanachai - Suparerk Pochchongdech	- High critical thinking skill. - Overly cautious.
5. Business Analyst	- Nathabordine Wonghirundecha	- Has wide knowledge about business field.
6. System Analyst	- Suparerk Pochchongdech	- High analysis skill.
7. Programmer	- Natcha Manasuntorn Suchut Sapsathien	- High web programming skill and experience.
8. User Interface Designer	- Nuttrawanee Kitwatthanachai - Nathabordine Wonghirundecha	- Has good amount of experience on UI design.

11. SDLC of project

Phased Development is our development methodology. We start with planning and analyzing the whole system requirement, then we group those requirements based on the project sponsor. The system will be delivered after finishing each phase. Then the development process of the next phase will start.

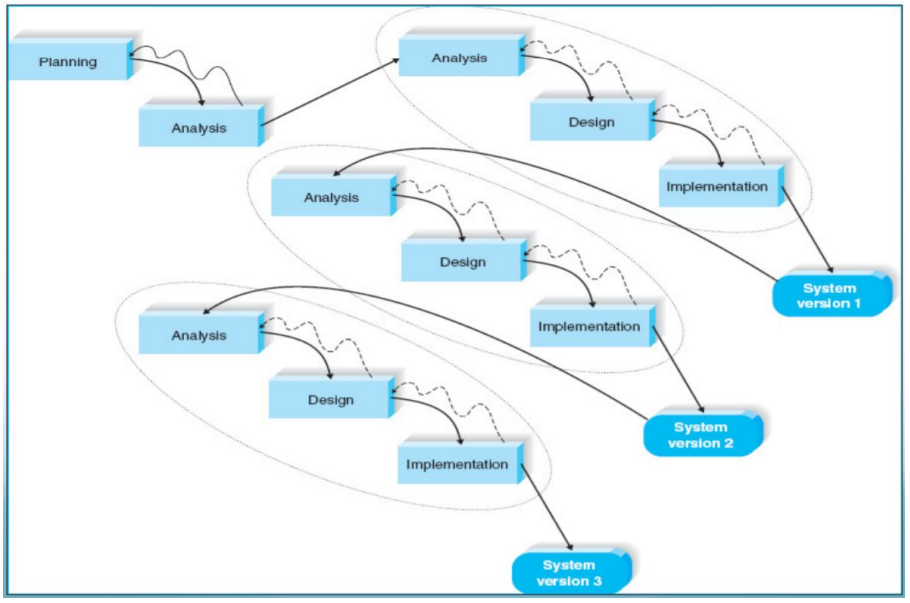


Figure 3 : Development Methodology

The reasons that we choose this methodology are

1. Users can identify additional requirements within the scope by using the previous version, so we can develop products and services to satisfy customer needs.

2. The website is delivered to user's hands quickly.

3. It is appropriate for the complex system because we can split the work and choose some requisite part to do first.

Table 4 : Phase Breakdown table

Phase	Devileries	Functions
1	- Customers' account management system - Customer service system	1. Customer registration 2. Photographer registration 3. Account management for customer 4. Account management for photographer 5. Profile management for photographer 6. Self-deletion account for customer 7. Self-deletion account for photographer 8. Photographer searching and filtering for customer 9. User authentication
2	- Appointment system - Payment system	1. History order for customer 2. Rating and reviewing for customer

	- Feedback system	3. Photographer behavior report for customer 4. Receipt printing for customer 5. Chat room for user and administrator 6. Appointment creation between customer and photographer 7. Deposit payment for customer 8. Service payment for customer
3	- Adminnistrator system	1. Adding advertisement for administrator 2. User account blacklist for administrator 3. User account management for administrator

Table 5 : Work Breakdown Structure table

Number	Task Name	Duration (days)	Start	Finish	Dependency	Status
1	**Planning**	**5**	**1 Sep 2019**	**5 Sep 2019**		complete
1.1	**Project initiation**	**3**	**1 Sep 2019**	**3 Sep 2019**		complete
1.1.1	Develop a system request	2	1 Sep 2019	2 Sep 2019		complete
1.1.2	Conduct a feasibility analysis	1	3 Sep 2019	3 Sep 2019	1.1.1	complete
1.2	**Project management**	**2**	**4 Sep 2019**	**5 Sep 2019**	**1.1**	complete
1.2.1	Develop a work plan	1	4 Sep 2019	4 Sep 2019		complete
1.2.2	Staff the project	1	4 Sep 2019	4 Sep 2019		complete
1.2.3	Develop the project plan	1	5 Sep 2019	5 Sep 2019	1.2.1, 1.2.2	complete
2	**Analysis**	**8**	**6 Sep 2019**	**13 Sep 2019**	**1**	complete
2.1	**Gather software and**	**5**	**6 Sep 2019**	**10 Sep 2019**		complete

	system request					
2.1.1	Planning to gather sponsor's requirement	1	6 Sep 2019	6 Sep 2019		complete
2.1.2	Gather sponsor's requirement	1	7 Sep 2019	7 Sep 2019	2.1.1	complete
2.1.3	Analyze sponsor's requirement	1	8 Sep 2019	8 Sep 2019	2.1.1, 2.1.2	complete
2.1.4	Analyze system requirements	1	9 Sep 2019	9 Sep 2019	2.1.3	complete
2.1.5	Revise system requirement	1	10 Sep 2019	10 Sep 2019	2.1.4	complete
2.2	Develop a project proposal	3	11 Sep 2019	13 Sep 2019	2.1	complete
3	**Phase 1**	**26**	**14 Sep 2019**	**9 Oct 2019**	**2**	open
3.1	**Analysis phase 1**	**9**	**14 Sep 2019**	**22 Sep 2019**		open
3.1.1	Planning to gather sponsor's requirement in phase 1	2	14 Sep 2019	15 Sep 2019		open
3.1.2	Gather sponsor's requirement in phase 1	2	16 Sep 2019	17 Sep 2019	3.1.1	open
3.1.3	Analyze sponsors requirements in phase 1	2	18 Sep 2019	19 Sep 2019	3.1.2	open
3.1.4	Analyze system requirements in phase 1	2	20 Sep 2019	21 Sep 2019	3.1.3	open
3.1.5	Revise system requirement in phase 1	1	22 Sep 2019	22 Sep 2019	3.1.4	open
3.2	**Design phase 1**	**7**	**23 Sep 2019**	**29 Sep 2019**	**3.1**	open

3.2.1	Design system function in phase 1	4	23 Sep 2019	26 Sep 2019		open
3.2.2	Design user interface in phase 1	2	27 Sep 2019	28 Sep 2019	3.2.1	open
3.2.3	Design database structure in phase 1	2	27 Sep 2019	28 Sep 2019	3.2.1	open
3.2.4	Revise system design in phase 1	1	29 Sep 2019	29 Sep 2019	3.2.1, 3.2.2, 3.2.3	open
3.3	**Implementation phase 1**	**10**	**30 Sep 2019**	**9 Oct 2019**	**3.2**	open
3.3.1	Implement user interface for main page, information page, photographers page, promotion page, login page, sign up page and user profile page	9	30 Sep 2019	8 Oct 2019		open
3.3.2	Login system	2	30 Sep 2019	1 Oct 2019		open
3.3.3	Sign up system	2	30 Sep 2019	1 Oct 2019		open
3.3.4	Edit users profile system	3	2 Oct 2019	4 Oct 2019	3.3.2, 3.3.3	open
3.3.5	Search photographer system	4	2 Oct 2019	5 Oct 2019		open
3.3.6	Create database in phase 1	7	2 Oct 2019	8 Oct 2019		open
3.3.7	Revise and test the system in phase 1	7	2 Oct 2019	8 Oct 2019		open
3.3.8	Deliver phase 1 system	1	9 Oct 2019	9 Oct 2019	3.3.7	open
4	**Phase 2**	**26**	**10 Oct 2019**	**4 Nov 2019**	**3**	open
4.1	**Analysis phase 2**	**8**	**10 Oct 2019**	**17 Oct 2019**		open
4.1.1	Planning to gather sponsor's requirement in phase 2	2	10 Oct 2019	11 Oct 2019		open

4.1.2	Gather sponsor's requirement inphase 2	1	12 Oct 2019	12 Oct 2019	4.1.1	open
4.1.3	Analyze sponsors requirements in phase 2	2	13 Oct 2019	14 Oct 2019	4.1.2	open
4.1.4	Analyze system requirements in phase 2	2	15 Oct 2019	16 Oct 2019	4.1.3	open
4.1.5	Revise system requirement in phase 2	1	17 Oct 2019	17 Oct 2019	4.1.4	open
4.2	**Design phase 2**	**7**	**18 Oct 2019**	**24 Oct 2019**	**4.1**	open
4.2.1	Design system function in phase 2	3	18 Oct 2019	20 Oct 2019		open
4.2.2	Design user interface in phase 2	2	21 Oct 2019	22 Oct 2019	4.2.1	open
4.2.3	Design database structure in phase 2	2	21 Oct 2019	22 Oct 2019	4.2.1	open
4.2.4	Revise system design in phase 2	2	23 Oct 2019	24 Oct 2019	4.2.1, 4.2.2, 4.2.3	open
4.3	**Implementation phase 2**	**11**	**25 Oct 2018**	**4 Nov 2018**	**4.2**	open
4.3.1	Implement user interface for appointment page, rating and reporting page and history page	10	25 Oct 2019	3 Nov 2019		open
4.3.2	Appointment system	3	25 Oct 2019	27 Oct 2019		open
4.3.3	Payment system	7	25 Oct 2019	31 Oct 2019		open
4.3.4	Establish bank API connection with the system	7	25 Oct 2019	31 Oct 2019		open
4.3.5	Chat room	7	25 Oct 2019	31 Oct 2019		open
4.3.6	Print receipt	7	25 Oct 2019	31 Oct 2019		open

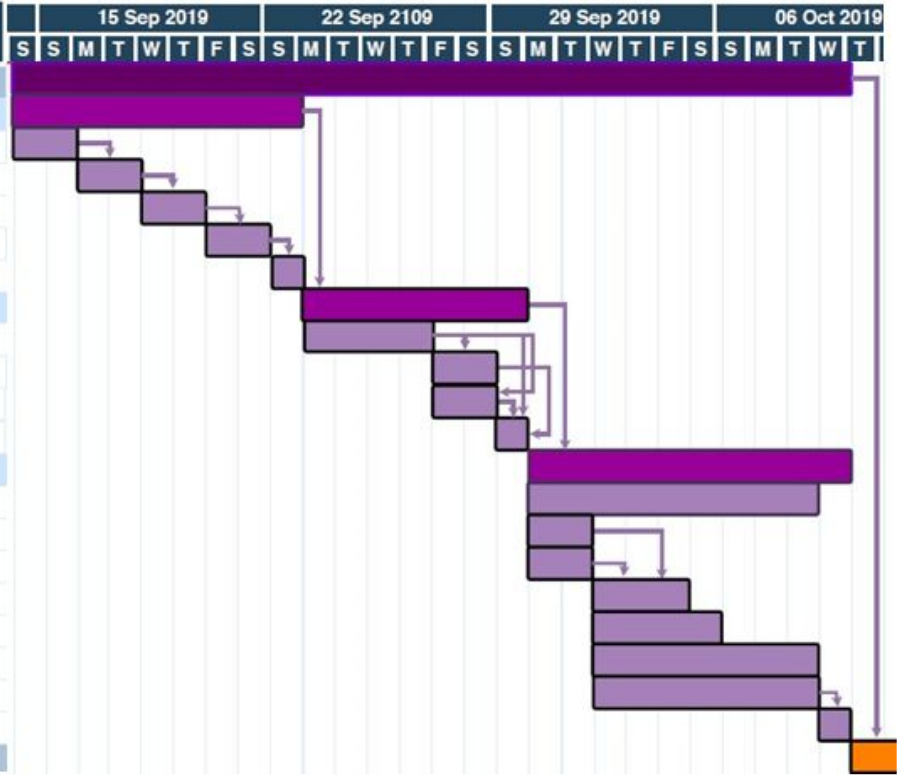
4.3.7	Rating and Behavior reporting system	3	25 Oct 2019	27 Oct 2019		open
4.3.8	Create database in phase 2	9	25 Oct 2019	2 Nov 2019		open
4.3.9	Revise and test the system in phase 2	10	25 Oct 2019	3 Nov 2019		open
4.3.10	Deliver phase 2 system	1	4 Nov 2019	4 Nov 2019	4.3.9	open
5	**Phase 3**	**17**	**5 Nov 2019**	**21 Nov 2019**	**4**	open
5.1	**Analysis phase 3**	**7**	**5 Nov 2019**	**11 Nov 2019**		open
5.1.1	Planning to gather sponsor's requirement in phase 3	2	5 Nov 2019	6 Nov 2019		open
5.1.2	Gather sponsor's requirement in phase 3	1	7 Nov 2019	7 Nov 2019	5.1.1	open
5.1.3	Analyze sponsor's requirement in phase 3	2	8 Nov 2019	9 Nov 2019	5.1.2	open
5.1.4	Analyze system requirements in phase 3	1	10 Nov 2019	10 Nov 2019	5.1.3	open
5.1.5	Revise system requirement in phase 3	1	11 Nov 2019	11 Nov 2019	5.1.4	open
5.2	**Design phase 3**	**7**	**12 Nov 2019**	**18 Nov 2019**	**5.1**	open
5.2.1	Design system function in phase 3	4	12 Nov 2019	15 Nov 2019		open
5.2.2	Design user interface in phase 3	1	16 Nov 2019	16 Nov 2019	5.2.1	open
5.2.3	Design database structure in phase 3	1	16 Nov 2019	16 Nov 2019	5.2.1	open
5.2.4	Revise system design in phase 3	2	17 Nov 2019	18 Nov 2019	5.2.1, 5.2.2, 5.2.3	open
5.3	**Implementation phase 3**	**3**	**19 Nov 2019**	**21 Nov 2019**	**5.2**	open

5.3.1	Implement user interface for administrator page	2	19 Nov 2019	20 Nov 2019		open
5.3.2	Blacklist system	2	19 Nov 2019	20 Nov 2019		open
5.3.3	Manage user information system	2	19 Nov 2019	20 Nov 2019		open
5.3.4	Manage advertisement	2	19 Nov 2019	20 Nov 2019		open
5.3.5	Create database in phase 3	2	19 Nov 2019	20 Nov 2019		open
5.3.6	Revise and test the system in phase 3	2	19 Nov 2019	20 Nov 2019		open
5.3.7	Deliver phase 3 system	1	21 Nov 2019	21 Nov 2019	5.3.1 - 5.3.7	open
6	**Deliver finished system**	**1**	**22 Nov 2019**	**22 Nov 2019**		open

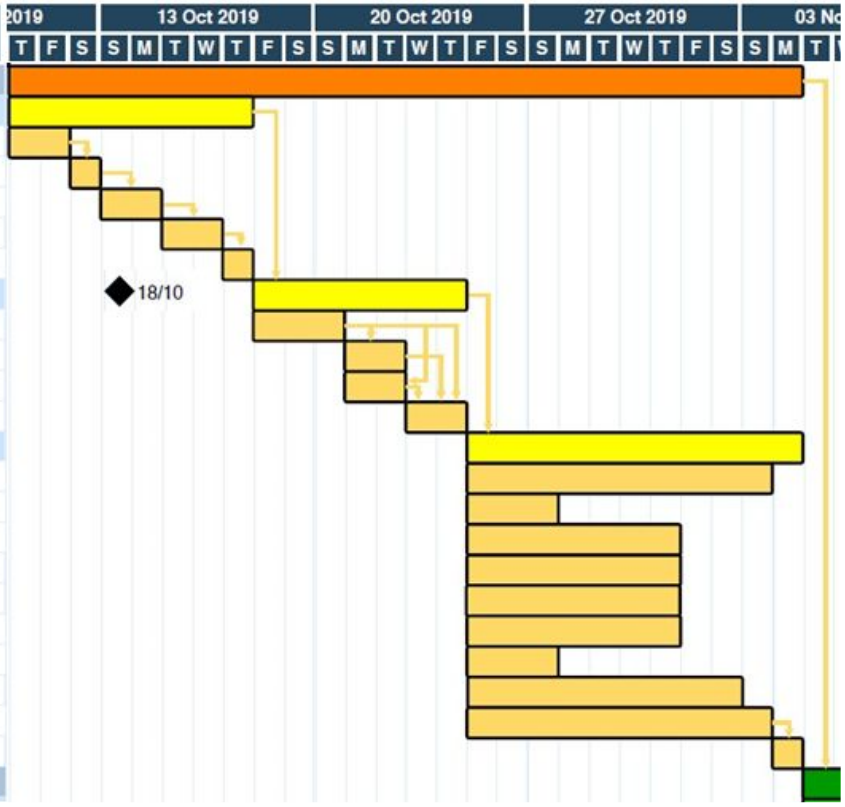
Gantt chart

	Task Name	Duration	Start	ETA
1.	Planning	5 days	01.09.19	07.09.19
1.1	Project initiation	3 days	01.09.19	03.09.10
1.1.1	Develop a system request	2 day	01.09.19	02.09.19
1.1.2	Conduct a feasibility analysis	1 days	03.09.19	03.09.19
1.2	Project management	2 days	04.09.19	05.09.19
1.2.1	Develop a work plan	1 day	04.09.19	04.09.19
1.2.2	Staff the project	1 day	04.09.19	04.09.19
1.2.3	Develop the project plan	1 day	05.09.19	05.09.19
2.	Analysis	8 days	06.09.19	13.09.19
2.1	Gather software and system request	5 days	06.09.19	10.09.19
2.1.1	Planning to gather sponsor's requirement	1 day	06.09.19	06.09.19
2.1.2	Gather sponsor's requirement	1 day	07.09.19	07.09.19
2.1.3	Analyze sponsor's requirement	1 day	08.09.19	08.09.19
2.1.4	Analyze system requirements	1 day	09.09.19	09.09.19
2.1.5	Revise system requirement	1 day	10.09.19	10.09.19
2.2	Develop a project proposal	3 days	11.09.19	13.09.19
3.	Phase 1	26 days	14.09.19	09.10.19

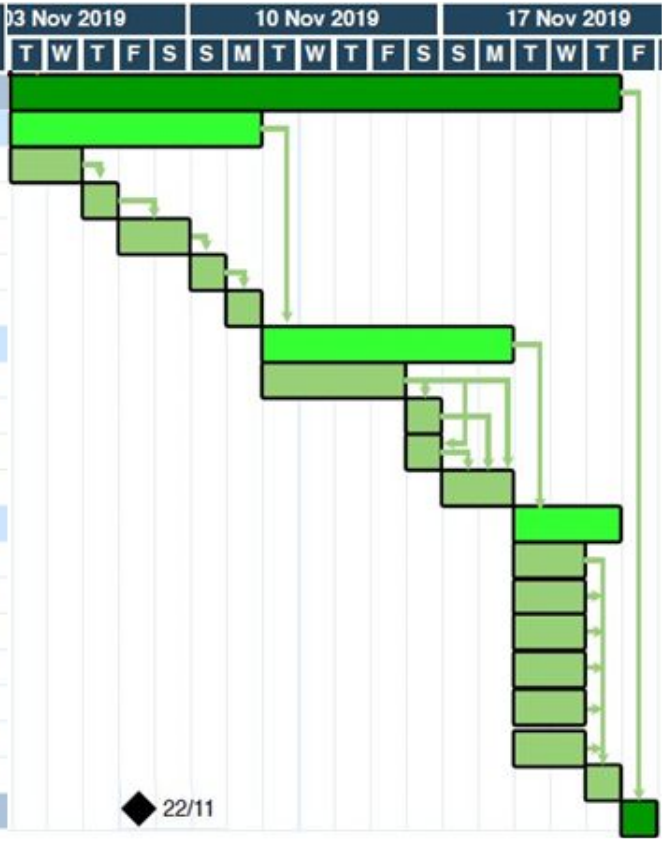
	Task Name	Duration	Start	ETA
3.	Phase 1	26 days	14.09.19	09.10.19
3.1	Analysis phase 1	9 days	14.09.19	22.09.19
3.1.1	Planning to gather sponsor's requirement in phase 1	2 day	14.09.19	15.09.19
3.1.2	Gather sponsor's requirement in phase 1	2 day	16.09.19	17.09.19
3.1.3	Analyze sponsors requirements in phase 1	2 day	18.09.19	19.09.19
3.1.4	Analyze system requirements in phase 1	2 day	20.09.19	21.09.19
3.1.5	Revise system requirement in phase 1	1 day	22.09.19	22.09.19
3.2	Design phase 1	7 days	23.09.19	29.09.19
3.2.1	Design system function in phase 1	4 day	23.09.19	26.09.19
3.2.2	Design user interface in phase 1	2 day	27.09.19	28.09.19
3.2.3	Design database structure in phase 1	2 day	27.09.19	28.09.19
3.2.4	Revise system design in phase 1	1 day	29.09.19	29.09.19
3.3	Implementation phase 1	10 days	30.09.19	09.10.19
3.3.1	Implement user interface for main page...	9 day	30.09.19	08.10.19
3.3.2	Login system	2 day	30.09.19	01.10.19
3.3.3	Sign up system	2 day	30.09.19	01.10.19
3.3.4	Edit users profile system	3 day	02.10.19	04.10.19
3.3.5	Search photographer system	4 day	02.10.19	05.10.19
3.3.6	Create database in phase 1	7 day	02.10.19	08.10.19
3.3.7	Revise and test the system in phase 1	7 day	02.10.19	08.10.19
3.3.8	Deliver phase 1 system	1 day	09.10.19	09.10.19
4.	Phase 2	26 days	10.10.19	04.11.19



	Task Name	Duration	Start	ETA
4.	Phase 2	26 days	10.10.19	04.11.19
4.1	Analysis phase 2	8 days	10.10.19	17.10.19
4.1.1	Planning to gather sponsor's requirement in phase 2	2 days	10.10.19	11.10.19
4.1.2	Gather sponsor's requirement inphase 2	1 day	12.10.19	12.10.19
4.1.3	Analyze sponsors requirements in phase 2	2 days	13.10.19	14.10.19
4.1.4	Analyze system requirements in phase 2	2 days	15.10.19	16.10.19
4.1.5	Revise system requirement in phase 2	1 day	17.10.19	17.10.19
4.2	Design phase 2	7 days	18.10.19	24.10.19
4.2.1	Design system function in phase 2	3 days	18.10.19	20.10.19
4.2.2	Design user interface in phase 2	2 days	21.10.19	22.10.19
4.2.3	Design database structure in phase 2	2 days	21.10.19	22.10.19
4.2.4	Revise system design in phase 2	2 days	23.10.19	24.10.19
4.3	Implementation phase 2	11 days	25.10.19	04.11.19
4.3.1	Implement user interface for appointment page, rating...	10 days	25.10.19	03.11.19
4.3.2	Appointment system	3 days	25.10.19	27.10.19
4.3.3	Payment system	7 days	25.10.19	31.10.19
4.3.4	Establish bank API connection with the system	7 days	25.10.19	31.10.19
4.3.5	Chat room	7 days	25.10.19	31.10.19
4.3.6	Print receipt	7 days	25.10.19	31.10.19
4.3.7	Rating and Behavior reporting system	3 days	25.10.19	27.10.19
4.3.8	Create database in phase 2	9 days	25.10.19	02.11.19
4.3.9	Revise and test the system in phase 2	10 days	25.10.19	03.11.19
4.3.10	Deliver phase 2 system	1 day	04.11.19	04.11.19
5	Phase 3	17 days	05.11.19	21.11.19



	Task Name	Duration	Start	ETA
5	Phase 3	17 days	05.11.19	21.11.19
5.1	Analysis phase 3	7 days	05.11.19	11.11.19
5.1.1	Planning to gather sponsor's requirement in phase 3	2 days	05.11.19	06.11.19
5.1.2	Gather sponsor's requirement in phase 3	1 day	07.11.19	07.11.19
5.1.3	Analyze sponsor's requirement in phase 3	2 days	08.11.19	09.11.19
5.1.4	Analyze system requirements in phase 3	1 day	10.11.19	10.11.19
5.1.5	Revise system requirement in phase 3	1 day	11.11.19	11.11.19
5.2	Design phase 3	7 days	12.11.19	18.11.19
5.2.1	Design system function in phase 3	4 days	12.11.19	15.11.19
5.2.2	Design user interface in phase 3	1 day	16.11.19	16.11.19
5.2.3	Design database structure in phase 3	1 day	16.11.19	16.11.19
5.2.4	Revise system design in phase 3	2 days	17.11.19	18.11.19
5.3	Implementation phase 3	3 days	19.11.19	19.11.19
5.2.1	Implement user interface for administrator page	2 days	19.11.19	20.11.19
5.2.2	Blacklist system	2 days	19.11.19	20.11.19
5.3.3	Manage user informaton system	2 days	19.11.19	20.11.19
5.3.4	Manage advertisement	2 days	19.11.19	20.11.19
5.3.5	Create database in phase 3	2 days	19.11.19	20.11.19
5.3.6	Revise and test the system in phase 3	2 days	19.11.19	20.11.19
5.3.7	Deliver phase 3 system	1 days	21.11.19	21.11.19
6	Deliver finished system	1 day	22.11.19	22.11.19



Appendix

Appendix A: Feasibility analysis

1. Technical feasibility

1.1. Functional Area

There is a low risk. Since development team is familiar with as-is system and some members in development team are expertise in this area, so the team is well-equipped for creating the system.

1.2. Technology

There is a moderate risk. Since the system is mainly developed as a web application platform that only few members are familiar with. So, the creation of the system is possible but requires extra effort .

1.3. Project size

There is a moderate risk. As development team used to develop a large number of the project and we compare it with other projects we create, we consider that the project size is moderate.

1.4. Compatibility

There is a low risk. Since the system allows as-is system users easy to integrate their information from their social network account. Moreover, the system is integrated by existed features. We consider that the system trends to be compatible with the as-is system.

2. Economic Feasibility

Table 6 : Economic Feasibility

Title	2019	2020	2021	2022	total
Development Cost					
Server Installation cost	1,500,000.00	0.00	0.00	0.00	
Server Expansion Cost	0.00	80,000.00	84,444.00	88,888.00	
Database restoration	50,554.00	54,554.00	58,554.00	62,554.00	
Domain	6,789.00	6,789.00	6,789.00	6,789.00	
Total development cost	1,557,343.00	141,343.00	149,787.00	158,231.00	
Operational Cost					

Server Maintenance Cost	9,000.00	9,500.00	10,000.00	10,500.00	
Website Maintenance Cost	5,000.00	5,200.00	5,400.00	5,600.00	
Database Maintenance Cost	8,888.00	11,110.00	13,332.00	15,554.00	
Developer team	1,200,000.00	100,000.00	100,000.00	100,000.00	
Internet Monthly Cost	38,507.16	38,507.16	38,507.16	38,507.16	
Promotion Cost	4,000,000.00	4,000,000.00	4,000,000.00	2,000,000.00	
Total operational cost	5,261,395.16	4,164,317.16	4,167,239.16	2,170,161.16	
Total cost	6,818,738.16	4,305,660.16	4,317,026.16	2,328,392.16	
PV of Cost	6,620.134.14	4,058,497.65	3,950,690.48	2,068,746.28	16,698,068.55
Cumulative PV of Cost	6,620,134.14	10,678,631.79	14,629,322.27	16,698,068.55	
Tangible benefits					
Advertisement revenue	1,875,000.00	2,437,500.00	3,168,750.00	4,119,375.00	
Payment transaction fee	1,303,779.93	1,694,913.91	2,203,388.08	2,864,404.51	
Total benefits	3,178,779.93	4,132,413.91	5,372,138.08	6,983,779.51	
PV of Benefits	3,086,194.11	3,895,196.45	4,916,267.36	6,204,997.64	18,102,655.56
Cumulative PV of Benefits	3,086,194.11	6,981,390.56	11,897,657.92	18,102,655.56	
Total project Benefits - Cost	(3,639,958.23)	(173,246.25)	1,055,111.92	4,655,387.35	
Yearly NPV	(3,533,940.03)	(163,301.20)	965,576.88	4,136,251.36	1,404,587.01
Cumulative NPV	(3,533,940.03)	(3,697,241.23)	(2,731,664.35)	1,404,587.01	
Return on	**8.41%**	(1,404,587.01/16,698,068.55)			

Investment					
Break-even point	3.66				

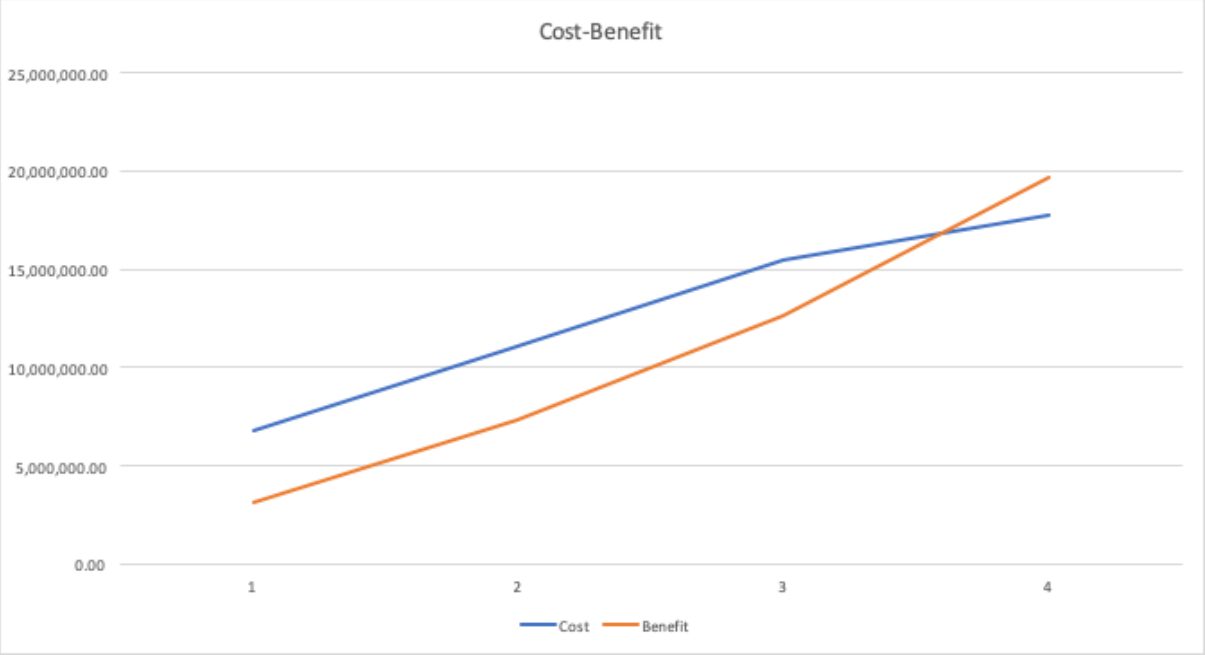


figure 4 : Break-Even Point

3. Organizational feasibility

3.1. Strategic alignment

There is a low risk. Our company relates to matchmaking system. We believe that our project will satisfy the needs of user groups and also be beneficial, so it is aligned with the organization strategy.

3.2. Stakeholders analysis

3.2.1. Project Champions

There is a low risk. The main purpose of project sponsor is a matchmaking system that provides service from provider to customer including registration system, provider's service, customer's service and payment system. Our system provides the rest of their desires, so we believe that our project will satisfy our sponsors.

3.2.2. Organizational management

There is a low risk. The organizational managers need to know the details about the purpose project including required budget and

benefits. We provide the detail proposal to them, so we believe that our proposal has enough detail to make the managers approved our system.

3.2.3. System users

There is a low risk. The system provides better convenience to users. They want to be matched with good service and suitable with their preference. Our system provides a tool for searching, so we believe that our project will satisfy our users.

3.2.4. Developer

There is a moderate risk. Some members in our team are unfamiliar with web development. We have to spend time to learn how to create a good website for users.

Appendix B: Project Estimation

Table 7 : Function classification (by complexity)

Phase	Function	Complexity
1	Customer registration	Simple
	Photographer registration	Simple
	Account management for customer	Simple
	Account management for photographer	Simple
	Profile management for photographer	Simple
	Self-deletion account for customer	Simple
	Self-deletion account for photographer	Simple
	Photographer searching and filtering for customer	Average
	User authentication	Complex
2	History order for customer	Simple
	Rating and reviewing for customer	Simple
	Photographer behavior report for customer	Simple
	Receipt printing for customer	Simple
	Chat room for user and administrator	Average
	Appointment creation between customer and photographer	Average
	Deposit payment for customer	Average
	Service payment for customer	Average
3	Adding advertisement for administrator	Simple
	User account blacklist for administrator	Simple
	User account management for administrator	Simple

Table 8 : Actor Type Description

Simple	- Third-party banking API - Third-party login API
Average	- User database - Internal Photo Storage
Complex	- Photographer - Customer - Administrator

Table 9 : Unadjusted Actor Weighting Table

Unadjusted Actor Weighting Table:				
Actor Type	**Description**	**Weighting Factor**	**Number**	**Result**
Simple	External system with well-defined API	1	2	2
Average	External system using a protocol-based interface, e.g., HTTP, TCP/IP or a database.	2	2	4
Complex	Human	3	3	9
				Unadjusted Actor Weight Total (UAW) = 15

Table 10 : Unadjusted Use-Case Weighting Table

Unadjusted Use-Case Weighting Table:				
Use Case Type	**Description**	**Weighting Factor**	**Number**	**Result**
Simple	1-3 transactions	5	14	70
Average	4-7 transactions	10	5	50
Complex	> 7 transactions	15	1	15
				Unadjusted Use Case Weight Total (UUCW) = 135
Unadjusted Use-Case Point (UUCP) = UAW + UUCW = 150				

Table 11 : Technical Complexity Factors

Technical Complexity Factors:

Factor Number	Description	Weight	Assigned Value (0-5)	Weight Value	Notes
T1	Distributed system	2.0	1	4	
T2	Response time or throughput performance objectives	1.0	1	1	
T3	End-user online efficiency	1.0	2	2	
T4	Complex internal processing	1.0	2	2	
T5	Reusability of code	1.0	1	1	
T6	Easy to install	0.5	4	2	
T7	Ease of use	0.5	4	2	
T8	Portability	2.0	1	2	
T9	Ease of change	1.0	3	3	
T10	Concurrency	1.0	2	2	
T11	Special security objectives included	1.0	2	2	
T12	Direct access for third parties	1.0	0	0	
T13	Special user training required	1.0	4	4	
Technical Factor Value (TFactor) = 28					
Technic Complexity Factor (TCF) = 0.6 + (0.01*TFactor) = 0.88					

Table 12 : Environmental Factors

Environmental Factors:					
Factor Number	**Description**	**Weight**	**Assigned Value (0-5)**	**Weight Value**	**Notes**
E1	Familiarity with system	1.5	4	6	
E2	Application experience	0.5	5	2.5	
E3	Object-oriented experience	1.0	5	5	
E4	Lead analyst capability	0.5	4	2	
E5	Motivation	1.0	4	4	
E6	Requirements stability	2.0	4	8	

E7	Part-time staff	-1.0	2	-2	
E8	Difficulty of programming language	-1.0	0	0	
Environmental Factor (EFactor) = 25.5					
Environmental Factor (EF) = 1.4 + (-0.03 * 25.5) = 0.635					
Adjusted Use Case Point (UCP) = UUCP*TCF*EF = 150 * 0.88 * 0.635 = 83.82					
Effort in person-hours = UPC*PHM = 83.82 * 20 = 1676.4					

From the tables above:

Our effort is 1676.4 person-hours and our team contains 7 people.

Each person average work time is 3 hours per day(including weekends).

Total work time is 82 days.