



PROJECT PROPOSAL

RUNNING EVENT SYSTEM

PRESENT TO

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BY

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Systems Analysis and Design

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Project name : Running Event System

Introduction

For the pass several years, running events has become trendy in Thailand. Men and Women , young and old, famous and ordinary people are all interested in these events. Almost every month has these events two or three times. This is a good phenomenon for thai people since it encourage people to exercise more and care more for their health.

However, since these running event has just become popular in Thailand, they still don't have an officially centralize system for event organizer and runners to communicate. Consequently, there are many problems and inconveniency following such as events are announced separately so it is hard for runners to look for the events that is most proper to them ,organizer find it hard to promote and manage their event , runners don't receive enough information of the running event and difficult for runners to find and pay for the reservation etc.

Our team concern with all the problems stating above so we decide to create a centralized platform for runners and event organizer to communicate. We'll also include useful functions to enhance user's convenience and hope that this project will encourage more people to go to running events.

Organization background

Running Event is an event that organizers create it for inviting anyone who wants to come for marathon or jogging. For attending the event, runners have to pay a fee to enroll the event for reservation, however, some events may free for charity.

Normally, in each event has event managers for contacting with the place or official for providing place for event because running events usually run on the road so that it can effect a traffic on each location. In addition, event managers also take care of every part in the running event to make it work well and smoothly.

In the running event, staffs are separated to many groups and each group has its own responsibility such as registration point, service point, starting point etc.. Every group will be brief by event managers in order to understand the whole event and their own duty.

The organization of running events depend on event managers and all of staffs in the event. Also the cooperation from runners will be one of the factor that will make the event go very well.

Problem statement

Item	Problem	Cause	Effect	Solution
1	Runners don't receive enough information of the running event such as location, time, cost etc.	The channels of communication between runners and event managers are limited.	<ul style="list-style-type: none"> - Runners sometimes miss out on important information of the running event. - Event managers have to answer the same question multiple times. 	Collecting information of all events into the same source. For example, build website for running events.
2	Difficult for runners to make the reservation for the running event	There are no intermediary systems between runners and event managers.	<ul style="list-style-type: none"> - Runners may decide not to go to running event because it is too hard for them to make the reservation. 	Made a running event reservation system
3	Running events are not announced on the same place so that this is hard for the user to look for the running event they really want.	There are no centralized places for runners to look for running activity.	Runners miss out on the running activity that they are really interested.	Made a platform that compiles running events including timeline and calendar which display a period of each event
4	It isn't convenient for event organizer to promote their event.	Existing systems are not capable of delivering event announcement to a large number of runners.	Low participation rate for the running event.	Create a platform containing announcement system
5	It isn't convenient for event organizer to manage their event.	Existing system does not integrate payment, reservation and staffing management within the same place.	The quality of the events may become lower than they could be.	Create a platform gathering all of requirement system
6	Runners have to fill out an application every time they want to join to event	There are no centralized places store data of event manager and runners	It's cause a delay on registration and collect data by event managers	Create a database that contain all data of them

Objective

This project objective is to provide a web application platform for running events to provide a system to improve user experiences for users who want to find or register to an running event and to provide a convenience system for event organizers to create and manage their events. The system also tends to provide a centralized system for runner communities to make their member easier to communicate for their events.

The project's expectation is to reduce the time used for create and manage events for organizers and reduce the time for user to find and join an event. In addition, the system also provide a tracking status and timeline reports for users to see their statistics for their joined event history.

Existing system (As-is System)

The as-is system for users to find and apply for the running event is that users have to find the running events from different platform, for example search engine or news from social media. As a result, it is hard to find their preferred events and information about the events. Once users have decided to apply for the running events, they have to follow the link provided to go the event website. Then the users have to fill the information in a form that the organizer provided and manually make a payment for entry fee directly to the organizer by their credit card or bank transfer. After that, the organizers have to match the payment transactions to the registered participants by hands and approve the application. The application will completed when the users fill the registration form and pay for the entry fee. Users will receive a confirmation page or email to use in the event date which the organizers have to sent it by themselves. The diagram of the system shown in the figure 1.

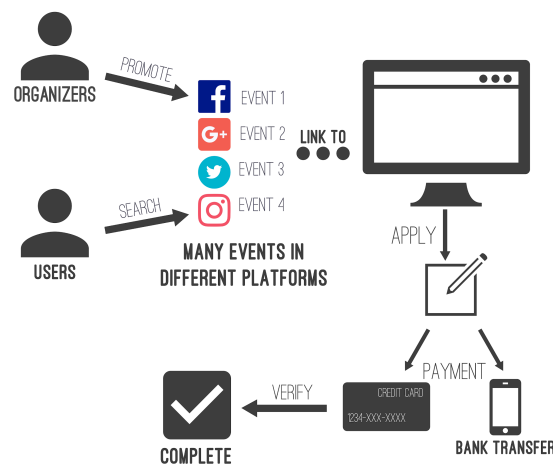


Figure 1 : The workflow of the as-is system

Scope

- 6.1 Website for users that includes an announcement of running events.
- 6.2 Running event reservation system
- 6.3 Timeline reports
- 6.4 Running event suggestion system
- 6.5 Thread and forum

List of features

1. registration and account management system
2. logging system
3. event management system
4. payment system
5. reservation system
6. running event suggestion system
7. Timeline and calendar of running event
8. User communication system

Definition

Term	Definition
Running event	A casual running event for amateur runners and normal people.
Event manager	A group of person who organizes the running event.
Running type	A type of running; This system will focus on only two: road running and cross country running.
Road running	The sport of running on a measured course over an established road.
Cross country running	a sport in which teams and individuals run a race on open-air courses over natural terrain.
Running distance	A total running distance over the entire course: usually ranging from short run (2.5 km) to Marathon (42 km).
User	Typical user of the system; This includes both interested runners and event managers.
Community	Refer to runners community
Reservation cost	A cost that runners must pay in advance to the event managers in order to participate in the running event.
Token of participation	Coins, trophies, certificate or token that the event managers give to the participated runners who have completed the course.

Requirement

1. Functional requirements

- 1.1. Registration and account management system
 - 1.1.1. The user shall be able to register a user account on the system.
 - 1.1.2. The event manager shall be able to register a manager account on the system.
 - 1.1.3. When the user has already logged in, the system shall allow user to edit his or her own personal information.
 - 1.1.4. When user has already logged in, the system shall allow user to view a list of their past participating events and upcoming participating events.
- 1.2. Logging system
 - 1.2.1. The system shall keep log of all event's participation.
 - 1.2.2. The system shall keep log of all payment transaction.
- 1.3. Event management system
 - 1.3.1. The system shall allow event manager to create a new running system.
 - 1.3.2. The system shall allow event manager to edit his or her own running event.
 - 1.3.3. The system shall allow event manager to view the payment transaction that pertaining to his or her own running event.
 - 1.3.4. The system shall allow event manager to view the list of participants of his or her own running event.
 - 1.3.5. The system shall allow event manager to edit the list of participants of his or her own running event.
- 1.4. Payment system
 - 1.4.1. The users shall be able to pay the running cost using mobile banking.
 - 1.4.2. The users shall be able to pay the running cost using credit or debit card.
 - 1.4.3. The users shall be able to print the receipt of the transaction after the payment is completed.
- 1.5. Reservation system
 - 1.5.1. The users shall be able to reserve a spot on the running event by specify the event along with date and time of their participation.

1.5.2.The system should notify the user by email seven and three days before the event starts.

1.6. Timeline and calendar

1.6.1. The system shall be able to display the calendar containing the past, ongoing and upcoming running event.

1.6.2.The system shall be able to display the information of all running events, including name, location, distance, rules, cost and responsible people

1.6.3.The system shall be able to display the running events based on the location of the users.

1.7. Running event suggestion system

1.7.1. The system shall be able to recommend a personalized list of running event to the users.

1.8. Users communication system

1.8.1. The system shall allow user to send message to the event manager.

1.8.2.The system shall allow event manager to reply to the user's message.

1.8.3.The system should include the discussion board that let the participating users contact fellow participants or event managers.

2. Non-functional requirements

2.1. Operational requirements

2.1.1. The system shall operate in every mainstream browser.

2.1.2.The system shall make automatic backup of its database twice a day.

2.2. Performance requirements

2.2.1.The system shall have the response time less than 2 seconds for every interaction between system and user.

2.3. Security requirements

2.3.1.The system shall allow only event managers to edit running event system.

2.4. Cultural and political requirements

2.4.1.The system shall be available only in English. In next version, the system may be available in Thai..

2.4.2.The system shall display the running events only in Thailand.

Constraints

- As the system will be integrated with online payment system, security issue must be addressed.
- The first version of system must be released within 2 months, in order to gain more funds for investment from project sponsor.
- The web application must be responsive to provide a user-friendly interface when the system is run on mobile platform.

Requirements verification

- Registration and account management system
 - Users can register an account using their name, desired username, desired password, email, ID card, birthdate, sex and their phone number.
 - Users can login into system with their desired username and password, after that the web redirects user to the user main page.
- Payment system
 - Users can use mobile banking platform to pay running event cost.
 - Users can use their debit card or credit card with system payment platform.
 - Users can print bill for their paid reservation.
- Event management system
 - The system is able to process the organizer's event management request within 2 seconds.
 - The event organizer can create events to the system. User can see and get notification about new created events.
 - The event organizer can edit events to the system. User can see a modified version of an event after it's modified.
- Reservation system
 - The system is able to process the user's request within 2 seconds.
 - The system sends the confirmation by email to the user after user's reservation request is successfully processed.

Team structure and responsibility

Project Manager: Ms.Chanissa Trithipkaiwanpon

System Analyst: Mr.Pawin Piemthai

Business Analyst: Ms.Kamolnadda Dansuputra

Graphic Designer: Ms.Natthawan Siripokasupkul

Technical lead: Mr.Nutchanon Ploypray

Developer: Mr.Pisit Wajanasara

Benefit

1. Users
 - a. Users can save time from browsing events and information from many platforms.
 - b. Users can make sure that they will not miss any of the event
 - c. Easier for users to make a reservation
 - d. Users can trust the transaction system
 - e. The system lets users contact the organizers directly when they need a further information.
2. Organizers
 - a. Organizers can reduce their advertising cost or website development cost by using the system to create the events.
 - b. Organizers are able to view and manage their event in one place.
 - c. Organizers can keep tracks of all transactions.
 - d. The system would increase the event ticket sales.
 - e. The system would increase the organizers convenience by reducing the works that they have to do by themselves.

To-be system

From the problems stated in the as-is system, we have design a new system that will solve those problems. The new system will start with the organizers can register for a manager account in our website and then they can create their event. After creating an event, the organizers can view and modify their event. The users can use the system by register for user account which will record their information used when they apply for the event, event log and, upcoming event. The users can search an event based on their preference, location or, time period. Once the users want to apply for the event, they can contact the organizer directly, reserve their spot in the event or, apply for the event in our website. For the payment system, users can pay the entry fee by mobile banking transfer or credit, debit cards. After payment is completed, the users can print the receipt from website. The users and organizers can both view their transactions log in the website. When the registration is complete, the users will be notify seven and three days before the event date. The diagram of the new system workflow is shown in figure 2.

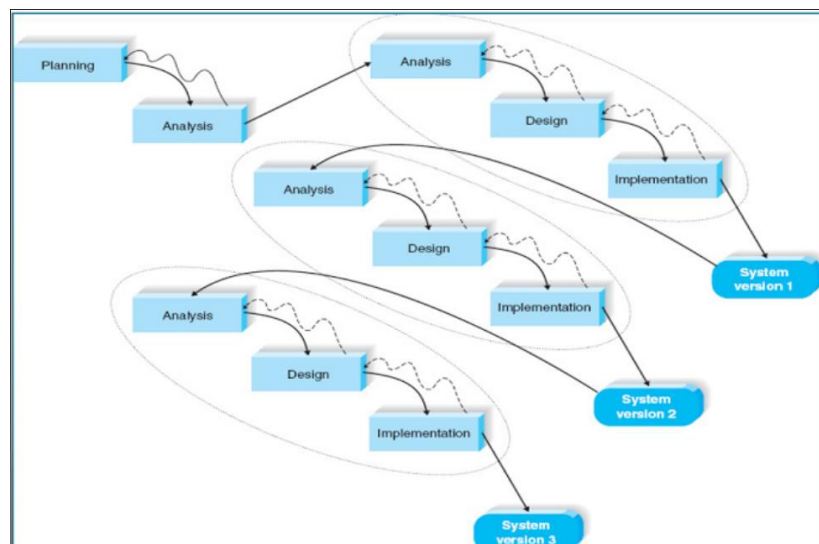


Figure 2 : The workflow of new system

Selected SDLC for the project

The selected software development life cycle is to use “Phase Development” because our system can be break into series of versions which can be developed sequentially. Phase Development also provide advantages over other SDLC in our consideration.

- As our system must be handed to project sponsor with in 5 months, this SDLC can rapidly provide usable system in time.
- As runner community is our user base, we can receive their feedback and add improve system feature in the next version of our system to satisfy our users.
- Business value can be provide sooner, after the first version of the system is released.



Delivery in each step

Phase breakdown table

Phase	Task
1	Registration and account management system, event management system, payment system, logging system, and reservation system
2	Timeline and calendar of running event and User communication system
3	Running event suggestion system

Work breakdown structure

Task Number	Task Name	Duration(days)	Dependency	Status
1	Planning	6	-	Complete
1.1	Project initiation	3	-	Complete
1.2	Project management	3	1.1	Complete
2	Analysis		-	In progress
3	Analysis phase 1	6	2	Open
3.1	Planning for gathering user's requirements	1	-	Open
3.2	Gathering user's requirements	2	3.1	Open
3.3	Analyze user requirements	1	3.2	Open
3.4	Creating system requirements	1	3.3	Open
3.5	Finalize system requirements	1	3.4	Open
4	Design phase 1	40	3	Open
4.1	Design database for phase 1	5	-	Open
4.2	Design functionality for the registration and account management system	2	-	Open

4.3	Design user interface for the registration and account management system	2	4.2	Open
4.4	Design the backend for the registration and account management system	3	4.1, 4.2	Open
4.5	Design the functionality for the reservation system	2	-	Open
4.6	Design user interface for the reservation system	4	4.5	Open
4.7	Design the backend for the reservation system	4	4.1, 4.5	Open
4.8	Design functionality for the logging system	2	-	Open
4.9	Design user interface for the logging system	2	4.8	Open
4.10	Design backend for the logging system	4	4.1, 4.8	Open
4.11	Design functionality for the payment system	2	-	Open
4.12	Design user interface for the payment system	3	4.11	Open
4.13	Design backend for the payment system	4	4.1, 4.11	Open
4.14	Design functionality for the event announcement system	3	-	Open
4.15	Design user interface for the event announcement system	5	4.14	Open
4.16	Design backend for the event announcement system	5	4.1, 4.14	Open
5	Implement phase 1	45	4	Open
5.1	Prepare development environment	1	-	Open
5.2	Implementing database system for phase 1	4	5.1	Open
5.3	Create user interface for the registration and account management system	3	5.1	Open
5.4	Create user interface for the reservation system	3	5.1	Open

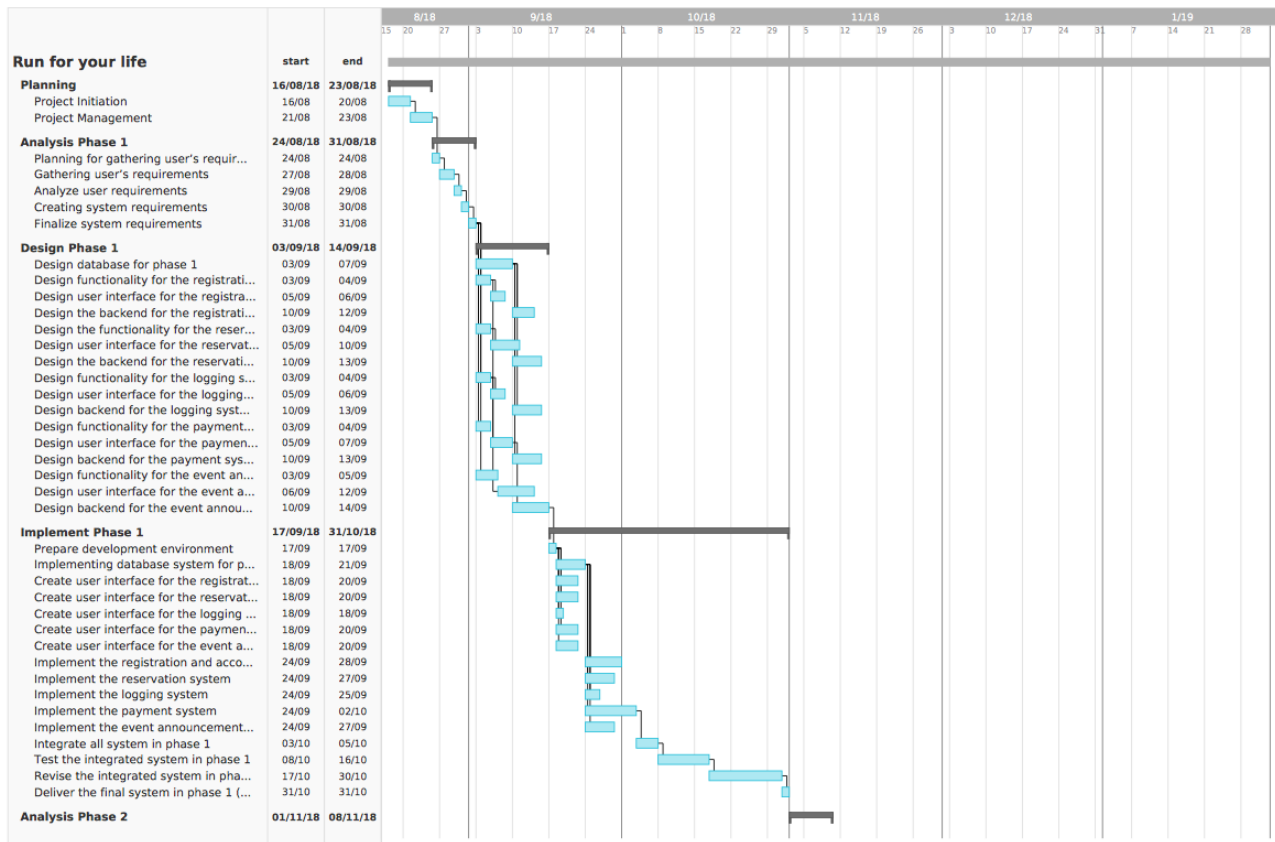
5.5	Create user interface for the logging system	1	5.1	Open
5.6	Create user interface for the payment system	3	5.1	Open
5.7	Create user interface for the event announcement system	3	5.1	Open
5.8	Implement the registration and account management system	5	5.1, 5.2	Open
5.9	Implement the reservation system	4	5.1, 5.2	Open
5.10	Implement the logging system	2	5.1, 5.2	Open
5.11	Implement the payment system	7	5.1, 5.2	Open
5.12	Implement the event announcement system	4	5.1, 5.2	Open
5.13	Integrate all system in phase 1	3	5.3 - 5.7, 5.8 - 5.12	Open
5.14	Test the integrated system in phase 1	7	5.13	Open
5.15	Revise the integrated system in phase 1	10	5.14	Open
5.16	Deliver the final system in phase 1 (version 1)	1	5.15	Open
6	Analysis phase 2	6	5	Open
6.1	Planning for gathering user's requirements	1	-	Open
6.2	Gathering user's requirements	2	6.1	Open
6.3	Analyze user requirements	1	6.2	Open
6.4	Creating system requirements	1	6.3	Open
6.5	Finalize system requirements	1	6.4	Open
7	Design phase 2	18	6	Open
7.1	Design the database for phase 2	5	-	Open
7.2	Design the functionality of Timeline and calendar system	3	-	Open
7.3	Design user interface for timeline and calendar system	3	7.2	Open

7.4	Design the backend of timeline and calendar system	3	7.1, 7.2	Open
7.5	Design the functionality for the User communication system	3	-	Open
7.6	Design the user interface for the user communication system	3	7.5	Open
7.7	Design the backend for the user communication system	4	7.1, 7.5	Open
8	Implement phase 2	20	7	Open
8.1	Prepare development environment for phase 2	1		Open
8.2	Implement database for phase 2 system	1	8.1	Open
8.3	Implement user interface for timeline and calendar system	3	8.1	Open
8.4	Implement user interface for communication system	2	8.1	Open
8.5	Implement timeline and calendar system	4	8.2	Open
8.6	Implement communication system	5	8.2	Open
8.7	Integrate all system in phase 2	2	8.3-8.6	Open
8.8	Test integrated system in phase 2	1	8.7	Open
8.9	Revise integrated system in phase 2	5	8.8	Open
8.10	Deliver final system version in phase 2 (version 2)	1	8.9	Open
9	Analysis phase 3	6	8	Open
9.1	Planning for gathering user's requirements	1	-	Open
9.2	Gathering user's requirements	2	9.1	Open
9.3	Analyze user requirements	1	9.2	Open
9.4	Creating system requirements	1	9.3	Open
9.5	Finalize system requirements	1	9.4	Open

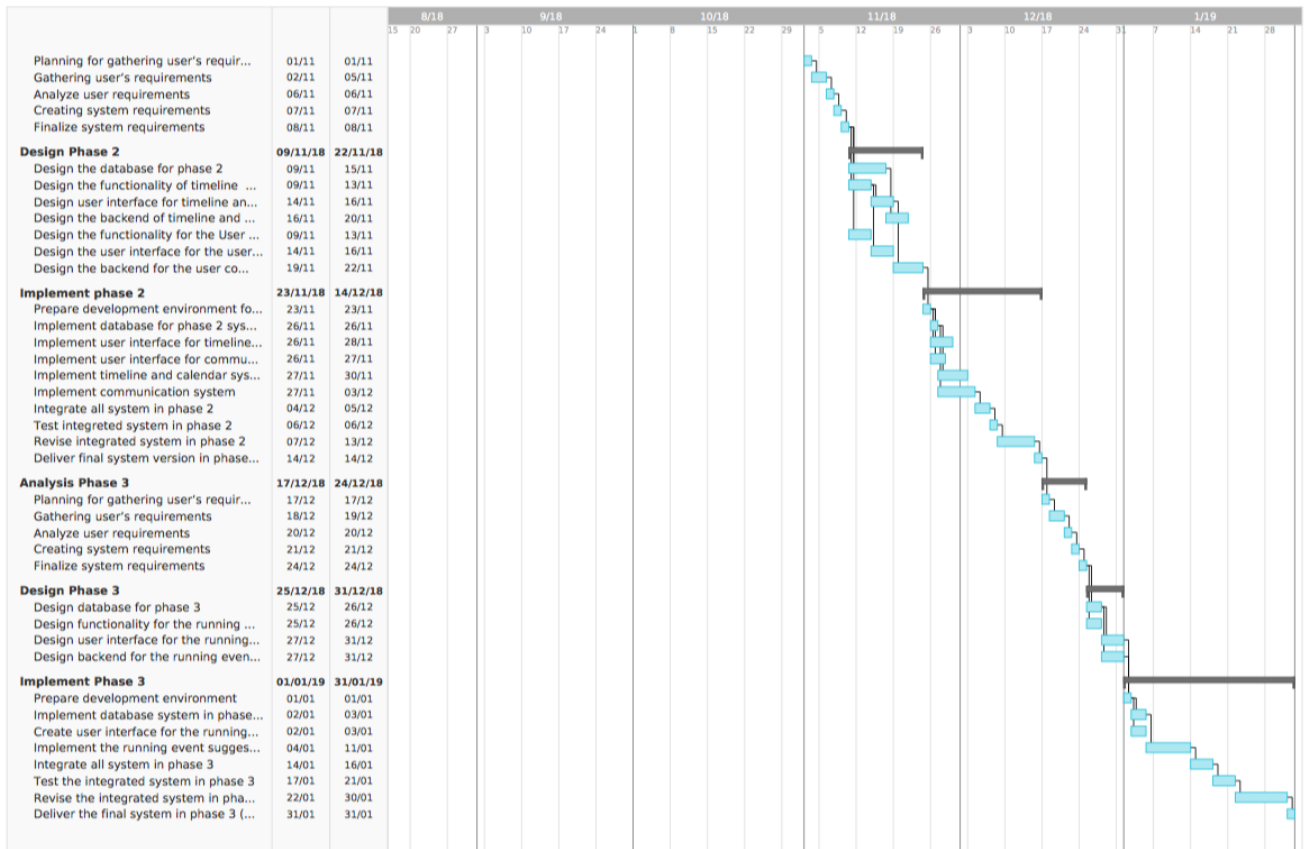
10	Design phase 3	8	9	Open
10.1	Design database for phase 3	2	-	Open
10.2	Design functionality for the running event suggestion system	2	-	Open
10.3	Design user interface for the running event suggestion system	3	10.2	Open
10.4	Design backend for the running event suggestion system	3	10.1, 10.2	Open
11	Implement phase 3		10	Open
11.1	Prepare development environment	1	-	Open
11.2	Implement database system in phase 3	2	11.1	Open
11.3	Create user interface for the running event suggestion system	2	11.1	Open
11.4	Implement the running event suggestion system	6	11.1, 11.2	Open
11.5	Integrate all system in phase 3	3	11.3, 11.4	Open
11.6	Test the integrated system in phase 3	3	11.5	Open
11.7	Revise the integrated system in phase 3	7	11.6	Open
11.8	Deliver the final system in phase 3 (version 3)	1	11.7	Open
12	Deliver finished system		11	Open

Gantt chart

teamgantt
Created with Free Edition



teamgantt
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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 of members in development team are expert in this area, so the team is well-equipped for creating the system.

1.2. Technology

There is a low risk. Since the system is mainly developed as a web application platform which is the familiar technology for development team, so the creation of the system is possible.

1.3. Project size

There is a moderate risk. As development team used to develop a large amount of the project. After we compared it with other projects which development team created, we conclude that the project size is moderate.

1.4. Compatibility

There is a moderate risk. As the system created for improvement the process and integrate as-is in a one system, development team have to integrate the system to the social network system to make the user switch from as-is system to to-be system.

2. Economic feasibility

Title	2018	2019	2020	2021	total
Development Cost					
Server Expansion Cost	300,000.00	0.00	0.00	0.00	300,000.00
Software License Cost	50,000.00	0.00	0.00	0.00	50,000.00
Development Labour Cost	800,000.00	0.00	0.00	0.00	800,000.00
Equipment Cost	50,000.00	0.00	0.00	0.00	50,000.00
Total development cost	1,200,000.00	0.00	0.00	0.00	1,200,000.00
Operational Cost					
Server Maintenance Cost	50,000.00	30,000.00	30,000.00	30,000.00	140,000.00

Website Maintenance Cost	20,000.00	15,000.00	15,000.00	15,000.00	65,000.00
Cloud Database Restoration	1,200.00	1,200.00	1,200.00	1,200.00	4,800.00
Admin Payroll	20,000.00	20,000.00	20,000.00	20,000.00	80,000.00
Internet Monthly Cost	12,148.00	12,216.00	12,164.00	12,461.00	48,989.00
Total operational cost	103,348.00	78,416.00	78,364.00	78,661.00	338,789.00
Total cost	1,303,348.00	78,416.00	78,364.00	78,661.00	1,538,789.00
PV of Cost	1,265,386.41	73,914.60	71,714.16	69,889.28	1,480,904.45
Cumulative PV of Cost	1,265,386.41	1,339,301.01	1,411,015.17	1,480,904.45	5,496,607.04
Tangible benefits					
Advertisement revenue	300,000.00	324,000.00	349,920.00	377,913.60	1,351,833.60
Service charge	120,000.00	129,600.00	139,968.00	151,165.00	540,733.00
Payment transaction fee	80,000.00	84,800.00	89,888.00	95,281.28	349,969.28
Total benefits	500,000.00	538,400.00	579,776.00	624,359.88	2,242,535.88
PV of Benefits	485,436.89	507,493.64	530,577.17	554,735.67	2,078,243.37
Cumulative PV of Benefits	485,436.89	992,930.53	1,523,507.70	2,078,243.37	5,080,118.49
Total project Benefits - Cost	(803,348.00)	459,984.00	501,412.00	545,698.88	
Yearly NPV	(779,949.51)	433,579.04	458,863.01	484,846.39	597,338.92
Cumulative NPV	(779,949.51)	(346,370.48)	112,492.53	597,338.92	

Return on investment	40.34%				
Break even point	2.75				
Intangible benefits					
Increase the rate of running event participation					

3. Organizational feasibility

3.1. Strategic alignment

As we believe that our project will satisfy the need of users group and manager group of running events and also it is beneficial so it is align with the organization strategy.

3.2. Stakeholders analysis

3.2.1. Runners - This website is a centralized channel for communication ,all running events will be posted on this website. Also, there is a lot of function that provide convenience for runners . It has high probability that users will use our system.

3.2.2.Event manager - To announce their event, this website is the most proper place. Also, all registration and transaction will be done here so we can make sure that event manager will use this website when it is finished.

3.2.3.Project team - Our project team is a professional skilled and experience developer so we can make sure that our project will finished successfully.

Appendix B: Method decisions and reasons:

Requirement analysis approach: Business Process Improvement (BPI)

Reason: The as is system is not centralize and the some of the processes can be optimize for more efficiency. So, we introduce a new system to centralize and improve the process of the as-is system

Requirement analysis strategy: Root cause analysis

Reason: We recognize that most of the problems occurring within the runner's community is caused by the poor management of the running event. This has been amplified by the lack of the integration system for the event manager and the central community for the runners. Hence, we seek to eliminate those cause by implementing the running event management system.

Requirement gathering techniques: Interview

Reason: Since the system is focused to runner community. We believe that to satisfy most of the users, we need to collect in depth information from real user, so interview is the technique that suit for our development need.