Development wedding planner using extreme programming method

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Abstract. This research will provide wedding planner with time management and comparison budget with several Indonesian Traditional wedding package. The development of wedding planner will use extreme programming method and implement project management plan to arrange the wedding. The development of this application will use CodeIgniter as a framework which is easier to continue on the next development. The final result of this research is a wedding planner to help bride and groom to easily maintain their schedule with wedding organizer on their pre-wedding. Moreover, Indonesian bride and groom more into traditional ceremony and on the budget with tight schedule, this wedding planner will compare several package and flexibility with schedule and reminder to give alert in order to keep on the timeline.

1. Introduction
The preparation of a big project needs a good plan and budget management. A wedding is one of a big project or event. A wedding organizer as a third party of the wedding ceremony and helps to organize the wedding. "Wedding Organizers usually work according to customer requirements, and we will provide appropriate solutions to what desired concept."[1] According to the opinion, it can be said that the wedding organizer arises because of the needs and concept of customers who is none other than the bride and groom. It is said, “The customer who is looking for a wedding organizer, in general, are people who have an incredible business and do not want to burden the family." [2] Most of the wedding ceremony according to the bride who paid more than fifty percentage wedding budget. Because of the traditions, request from parents, or the bride’s wedding dream, wedding ceremony spent a lot of time and money. The brides who use the services of a wedding planner was not a person who has a low financial, but the middle-high financial. This study proposed users (WO) from Bandung, Indonesia, according to a survey, middle-high financial and provide a traditional wedding ceremony is higher than in other countries.

Social media and the development of technology also affect the plan and business process. Wedding organizers see this as another way to reach brides and grooms to handle their wedding. Another platform wedding planner, such as Bridestory or wedding planner on www.mywedding.com used globally. Those are comparing and providing wedding packages or decoration from several wedding ceremonies. More than hundreds of wedding organizer join as a member, therefor the bride and the groom able to choose wedding organizer and manage their wedding. The problem here is they are not flexible with time and mostly over budget.
The solution proposed in this study about the development of a wedding planner website to help the bride and the groom for Indonesian style with several and comparison package from wedding organizers with a flexibility timeline. This development using XP Method aims to maintain the iteration with user requirements and help the developer to understand users' experience.

2. Literature Review and Methodology

2.1. Project management

Based on Information Technology Project Management, project management is the application of knowledge, skills, tools, and techniques to project activities to meet project requirements. Which mean the project manager must to fulfill the scope, cost, and quality goals of projects. The requirements of activity in scope must balance with cost and controlled by quality goals of projects.

![Project management framework](image)

Figure 1. Project management framework [3].

Based on the figure 1, illustrates the framework to understand about project management consists of project stakeholders, project managers and 10 knowledge areas, and project management tools and techniques. This wedding planner only implement scope management and time management to arrange all activities of wedding to project management plan which occur before the wedding ceremony.

2.2. Development Method

According to Agile Software Development Ecosystems, agility is the ability to both create and respond to change in order to profit in a turbulent business environment. This can be concluded that agile software development is a method that can be used in holistic environment and called methodology as an ecosystem.

Agile alliance is a great kick-off point for information on agile processes like extreme programming, scrum, or crystal [4]. While this research is using agile method, this concluded that agile is a good way to find information in order to develop software based customer needs.

2.2.1. Extreme programming. “XP is a lightweight methodology for small-to-medium-sized teams developing software in the face of vague or rapidly changing requirements.” [5]. Extreme programming is a methodology targeted for small teams of developers who need to develop software quickly in a changing environment [6]. According those statements, extreme programming become the suitable method for this development. The development of web with short duration like 3-4 months for coding and less than is preparation and testing to user. This methodology also friendly-user, because it is depending on feedback from user. XP has five principles, those are rapid feedback, simplicity, incremental change, embracing change, and quality work [7].
Figure 2. Extreme Programming Method [8].

Based on figure 2 show extreme programming life cycle on the project life cycle explained [9] about lifecycle of extreme programming model: (1) Exploration phase is the user explain all the requirement that will be entangled to the software. (2) The Planning phase focus on priority management from requirement given by user and management schedule for software development. (3) Iteration to Release phase focus on creating a prototype and each of development, which the result will be discussed with users. (4) Productionizing phase is about releasing software for the first version. Firstly, do re-check for well suited to requirement users. (5) Maintenance phase is the result from feedback will be evaluated and used for software refinement, then release new software and suited with user requirement for certainty.

3. Analysis and Result
3.1 Exploration phase
Exploration phase described process collecting data and pretension from user when the software is released, called User Story. The process conducted by personal interview and online survey to wedding organizer about preparation process of wedding ceremony.

Table 1. Identification (Iteration 1).

| Number | REQ-ID  | Requirement            | Description                                      | Source                        |
|--------|---------|------------------------|--------------------------------------------------|-------------------------------|
| 1      | REQ-01  | Management wedding planner | This process provide the ability of customization of wedding planner | Wedding organizer and customer |
| 2      | REQ-02  | Messaging               | Provide communication between WO and bride       | Wedding organizer and customer |

Table 1 shows user story which provide information about user’s requirements. They are management wedding planner and messaging. Management wedding planner aim to the main goals, customization of wedding planner. Moreover, messaging provide communication between Wedding Organizer (WO) and bride. Communication is the hardest part in wedding preparation, based on iterations.

3.2 Planning phase
Planning phase discuss about priority for each requirement in user story. User story will assist the project velocity to release planning process to iteration to release phase. Final user story will be the final for iteration to release phase on unified modeling language (UML) and user interface.
Table 2. User Story – Iteration 1.

| Actor                     | Action                  | Objectives                        | Priority | Estimation |
|---------------------------|-------------------------|-----------------------------------|----------|------------|
| Customer and Wedding      | Management              | Member can customize the list     | 1        | 2 week     |
| Wedding Organizer         | Wedding Planner         |                                   |          |            |
|                           |                         | Member can:                       | 2        | 3 week     |
|                           |                         | - Add                              |          |            |
|                           |                         | - Check                           |          |            |
|                           |                         | - Comment                         |          |            |
|                           | The list activity       | Member can contact the WO         | 2        | 1 week     |
|                           |                         | about planner                      |          |            |
|                           | Messaging               | Member can send message           | 2        | 1 week     |
| Customer and Wedding      |                         | WO can reply message              | 3        | 1 week     |
| Organizer                 |                         |                                   |          |            |

Table 2 describes the plan for programming features for wedding planner and messaging. Planning phase also estimates the development progress, because iterations should be predicted within the estimation time.

3.3 Iteration to release phase

Iteration to Release Phase is about development process such as iterations on development. This phase also conducts testing. Extreme Programming Method is very critical in this phase, because of managing the version of development. Less bugs and less negative feedback are the goals here.

The testing is conducted by user stories and get the acceptance test result from customers and wedding organizers.

3.4 Productionizing phase

At the production stage, the application is ready to release the first version and conducted trials on the user and the process of approval user to customize the application in accordance with the wishes and needs of the user, and get input from the user. The final is conclusion phase is about re-evaluated as a whole and given suggestions for further development.

Acceptance from customers and wedding organizer came from testing case about web design, reliability, responsiveness, security, fulfilment, personalization, information and empathy [10].

4. Conclusion

There is some unique characteristic in this wedding planner, which define wedding organizer using XP Method and determined by project management. The wedding planner here provide messaging and reminder between WO and customer. That is the special requirements how to communicate the events and project of wedding between wedding organizer and customer.

In the process of integration wedding planner with project management in wedding planner application shows several things that can be concluded; (1) Using web application wedding planner for wedding organizer especially bride and groom can easily manage their wedding preparation. This would be the bridge between both users for maintain the project effectively and efficient on time. (2) This research application combines project management using extreme programming method to develop the process of project management, in which manually, wedding organizer make arrangement for wedding using phone calendar and board. (3) Communication easily connected using comments and messaging for both users will make this planner works.
5. References
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