

KS Bridal Management System

Ras Fadzilah Razali¹, Norsham Idris²

Department of Software Engineering, Faculty of Computing, Universiti Teknologi Malaysia, 81310 Skudai,
Johor Bahru, Johor, Malaysia

¹ rasfadzilah94@gmail.com, ² norsham@utm.my

Abstract. Nowadays, it is vital for businesses to have an online presence, especially those businesses which dealing with customer directly. Similarly, in wedding business industry, with a computerized management system, it is hoped that it can improve the efficiency of work flow in the organization and thus, brings benefit to the worker and bring profit to the organization. KS Bridal Enterprise is an organization that provides services for event ceremony especially wedding ceremony. As the time grows, there are an upwards number of clients and the user demands. Thus, with the development of KS Bridal Management System, it is hoped that the system can assist in the organization's business activity systematically and reduce the workload of the staff. This KS Bridal System is a web based system designed specifically for the use of KS Bridal Enterprise using Rational Unified Process methodology and developed in Model View Controller (MVC) architecture to ensure there are clean separation between each elements and easier to maintain in the future. After go through all the phase in RUP, this KS Bridal Management System is fully developed following all the requirements and restriction collected throughout the phase. Lastly, the system was tested using white box and black box testing to validate and verify that the system can functioned well and fulfill all the requirements gathered.

Keywords: MVC, RUP, Event Management System

1 INTRODUCTION

Recently, the upswing trends of modern technology including internet technology, web technology, information technology and telecommunication has sweep up the community. Our new generations are depending more on the technology in assisting their daily routine or works as these technologies can make their work much easier and more convenient. Even in the business industry, people tend to use technology to ensure correctness and completeness in handling their business activities. Similarly, in wedding business industry, there should be no exception for them to use technology in assisting the business.

This paper discussed about the system architecture design used for the development of KS Bridal Management System. System architecture design is a conceptual model that used to visualize the structure of a system. This design is vital in order to meet the quality (non-functional) requirement of the system. This system aimed to help the wedding organizer to organize their clients' wedding ceremony. Starting from the clients browsing the wedding packages to the execution of the plans for their wedding by the wedding organizer, this system will assist specifically, the wedding organizer to ensure that the wedding ceremony that will be held will meet client's requirements and expectations. This system will also provide functionality for the supplier whose

working for the wedding organizer to received notification and reminder about the wedding that they have to handle.

2 Problem Background

KS Bridal has involved in the wedding industry for 11 years since 2006. As the number of clients was increasing from time to time, they critically in needs for automated system that can help them in managing their business activities. Currently, the organization only uses a paper-based approach to handle their client and event information.

Using paper-based approach, it caused them many problems such as miscommunication between the workers and the client, missing information and the worst case that possibility happened to them is that they forgot to handle their client events due to missing information.

While from client's perspectives, as the design, decoration and preference for an event is differ from one person to another, they would like to have the abilities to survey for the design and price that they liked before wards.

3 Methodology

In order to improve software development processes, Rational Unified Process (RUP) methodology has been used in the development phase for KS Bridal Management System. This model is an iterative and incremental model that combined the procedural aspects of development such as techniques with the other components of development such as diagrams, code, models, manuals and many more in a single unifying framework.

The used of this methodology will strengthen the management's control over the development process as they apply divide-and-conquer term by dividing complex task into small and manageable sections (Ragunath, 2010).

3.1 Inception Phase

The aim of this phase is to focuses on the project's launch. The scope of the system also should be validated appropriately to estimates the total costing and budgets. . This phase also determine whether the proposed project should be cancelled or redesigned to fulfill the requirement and constraints.

3.2 Elaboration Phase

Elaboration phase or is known as the Lifecycle Architecture Milestone aims to create a basic system to give a basic idea and shape the architecture of the system. In elaboration phase, problem domain analysis, architecture of the system, planning of the development of KS Bridal Enterprise is specified. Unified Modeling Language (UML) such as use case diagram, activity diagram, and sequence diagram is used to visualize the system architectural in diagram manner. Figure 1 shows the activity diagram for add new wedding package.

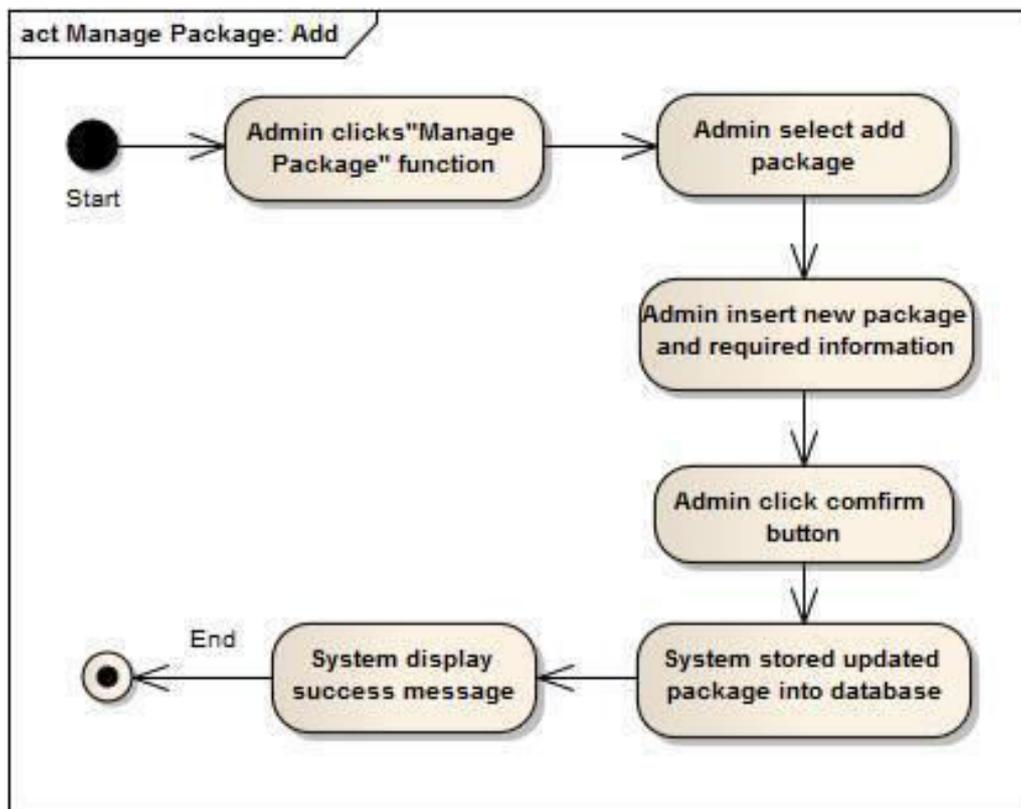
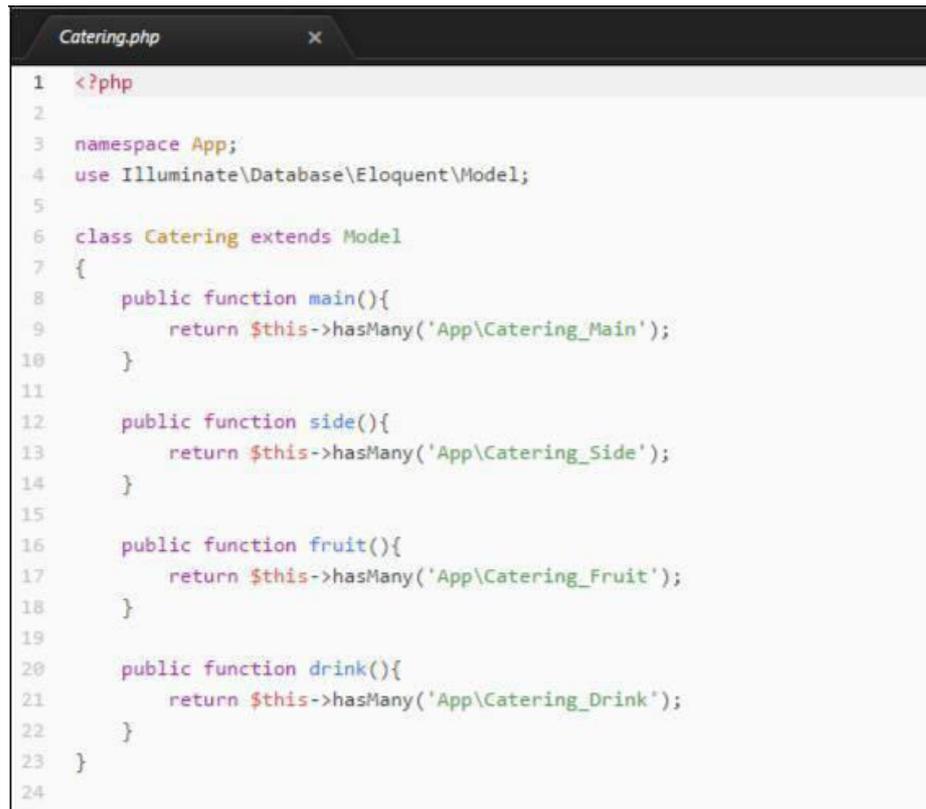


Figure 1: Add Package Activity Diagram

3.3 Construction Phase

This phase focuses on making an operational system by using the executable architecture that was created in the Elaboration phase. In this phase, the development of the project completed and the source code is written. The goal of this phase is to write the codes for the components and other features of the system. The coding wrote is based on the architecture designed at the previous phase – elaboration phase.

First external release of the system will be the output of this phase and different kinds of testing will be carried out to validate the usability of the system. There are a quite a number of iterations carried out to fulfill the requirements specified by the users at the earlier stage (Belani et al., 2009). Figure 2 shows a part of the coding used to develop Catering.php.



```

1  <?php
2
3  namespace App;
4  use Illuminate\Database\Eloquent\Model;
5
6  class Catering extends Model
7  {
8      public function main(){
9          return $this->hasMany('App\Catering_Main');
10     }
11
12     public function side(){
13         return $this->hasMany('App\Catering_Side');
14     }
15
16     public function fruit(){
17         return $this->hasMany('App\Catering_Fruit');
18     }
19
20     public function drink(){
21         return $this->hasMany('App\Catering_Drink');
22     }
23 }
24

```

Figure 2: Source code for Catering.php

3.4 Transition Phase

This phase aims on transitioning the completed system into the actual production. The system is made available and understood by the end users who have the interest to use this system. The system must fulfill the software requirements and needs of its users.

4 Result

KS Bridal Management System was developed using Laravel 5.4 framework. Laravel is one of the web application frameworks that help system developers to create standard-based web solutions. Although it is free, the features supported are not simple. It provides a rich set of features and easy integration with databases, web services and rich internet applications. This framework has an elegant syntax and provides alternative and common build-in function such as the authentication procedure, routing, session and so forth.

At the other side, after studying and making comparison between the existing systems in the market, there are few features that must be included in the proposed system to ensure a great software quality is produced and can fulfill requirements stated by the stakeholder.

Figure 3 illustrate the use case for KS Bridal Management System. A use case is a list or a set of function that describe the functional features of a system. There are four main elements in use case diagram which are the actors or users, use case, the interaction between actor and use case and lastly, the system itself. For dynamic aspects, this diagram will show interaction between use case and actors that involve in this system.

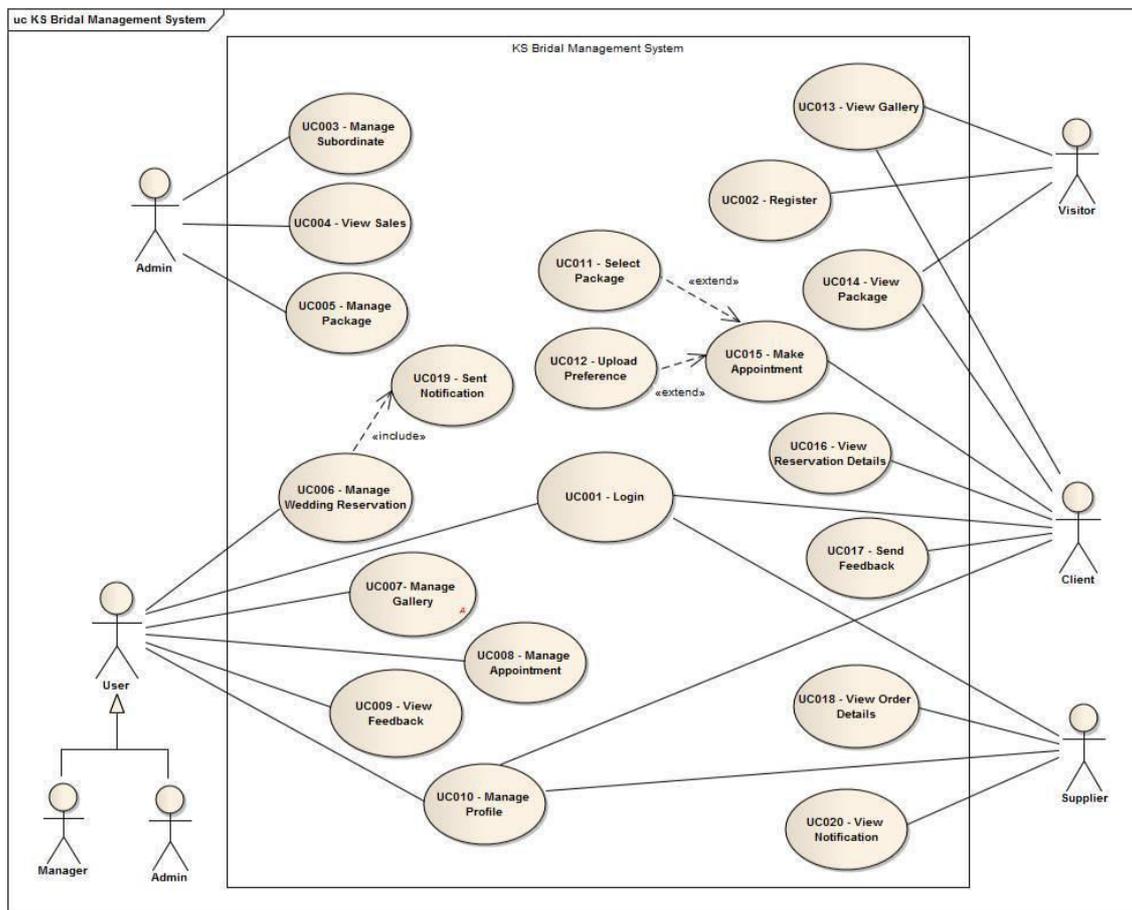


Figure 3: Use Case of KS Bridal Management System

KS Bridal Management System is a system that was specifically designed to help KS Bridal Enterprise in their daily business activities. By using this system, the users can minimise their working efforts and maximize the output. The system also acts as middleware and platform for them to store their business data and client's information. The system also promotes paper-less environment which can benefit our nature.

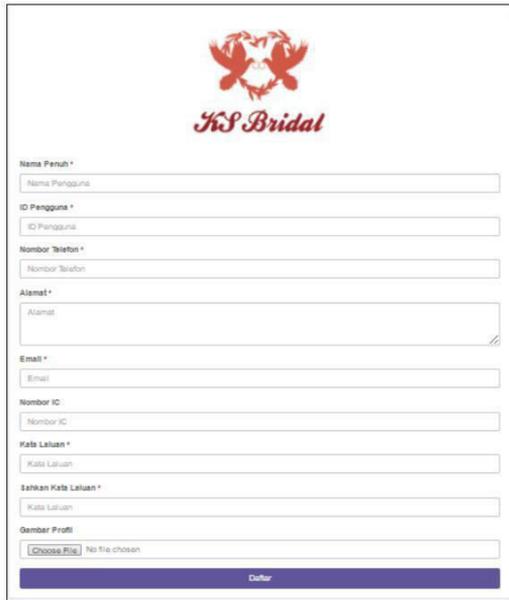
5 Discussion and Future Works

Currently, KS Bridal Management System is a web-based application. The function and the interface is preferred to be viewed using desktop even though Bootstrap is being used. In future, the system can be integrated into a mobile application which can compromise the needs of upcoming application's trends.

Moreover, future developer also can include the payment method into the system to enhance the complexity of the system. This payment procedure is not covered in this project due to time constraints.

Last but not least, this system is only focusing on one organization which is KS Bridal Enterprise. In future, developers can enhanced the marketability of the system by making more general function that covered all the necessary needs of the people in the wedding industry.

Figure 4 and 5 shows the interface for register new user into the system and manage catering interface respectively.

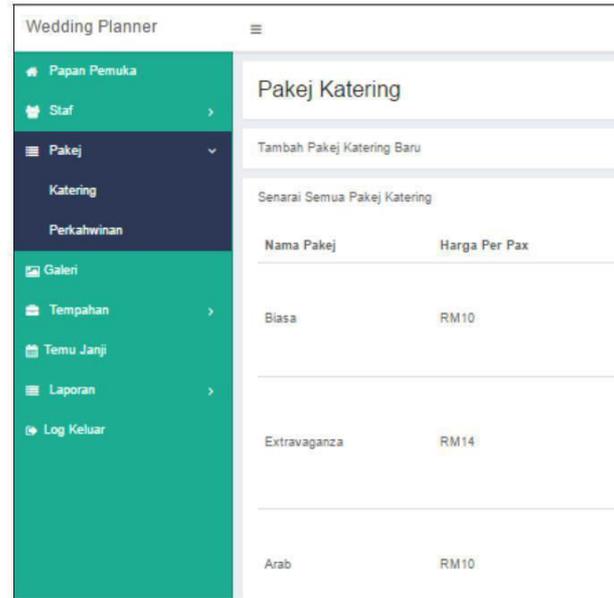


The register interface for K&S Bridal features a red logo at the top center. Below the logo, there are several form fields for user registration:

- Nama Penuh ***: Nama Pengguna
- ID Pengguna ***: ID Pengguna
- Nombor Telefon ***: Nombor Telefon
- Alamat ***: Alamat
- Email ***: Email
- Nombor IC**: Nombor IC
- Kata Laluan ***: Kata Laluan
- Sahkan Kata Laluan ***: Kata Laluan
- Gambar Profil**: Choose File (No file chosen)

A blue "Daftar" button is located at the bottom of the form.

Figure 4: Register Interface



The manage catering interface is titled "Wedding Planner" and has a green sidebar menu with the following options: Papan Pemuka, Staf, Pakej (selected), Katering, Perkahwinan, Galeri, Tempahan, Temu Janji, Laporan, and Log Keluar. The main content area is titled "Pakej Katering" and includes a "Tambah Pakej Katering Baru" button and a "Senarai Semua Pakej Katering" section. The list of catering packages is as follows:

Nama Pakej	Harga Per Pax
Biasa	RM10
Extravaganza	RM14
Arab	RM10

Figure 5: Manage Catering Interface

References

- Anwar, A. (2014). A Review of RUP (Rational Unified Process). *International Journal of Software Engineering (IJSE)*, 5(2): 8–24.
- Belani, H., Car, Z., and Caric, A. (2009). RUP-Based Process Model for Security Requirements Engineering in Value-Added Service Development. *ICSE'09 Workshop*, 54–60.
- Ragunath, P. (2010). Evolving a new model (SDLC Model-2010) for software development life cycle (SDLC). *International Journal of Computer Science and Network Security*, 10(1): 112–119.