Software Project Management Plan
for WKU Wise System

Version No. 0.1

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I. Introduction

1. Project Overview

Wenzhou-kean University is the branch campus of Kean University in New Jersey, USA. The two campus share one common information system (Kean Wise) for students. However, the system always crashes whenever thousands students log in and register courses. This project is to build up a new information system called WKU Wise specially for students of Wenzhou-kean University to shunt the flow volume from Kean Wise. WKU Wise is an individual server that only allows WKU students to log in. At the meantime, WKU Wise will send all records to the main database of Kean Wise. Ideally, WKU can afford at most 5,000 visitors per seconds and will be combined with financial service such as tuition payment. Users own different accesses according to their identity, like students and faculty.

2. Project Deliverables

1. Project charter 24/06/2016
2. Scope statement 01/07/2016
3. WBS 06/07/2016
4. Schedule&cost baseline 11/07/2016
5. Project management plan 13/07/2016
6. Available servers 25/07/2016
7. Requirements Specification 02/08/2016
8. Database 25/08/2016
9. Website 01/11/2016
10. Test report 09/11/2016
11. Product report 09/11/2016

3. Evolution of the SPMP

Revision	Date	Updated By	Update Comments
0.1	23/06/2016	Jiada Ye	First Draft

4. Reference Materials

I. Kean Web Information System Express (Kean Wise) https://webreg.kean.edu/WebAdvisor/WebAdvisor?TYPE=M&PID=CORE-WBMAIN&TOKENIDX=2731957109

II. Schwalbe, Kathy, *Information Technology Project Management |7e*, Course Technology, 2014.

5. Definitions and Acronyms

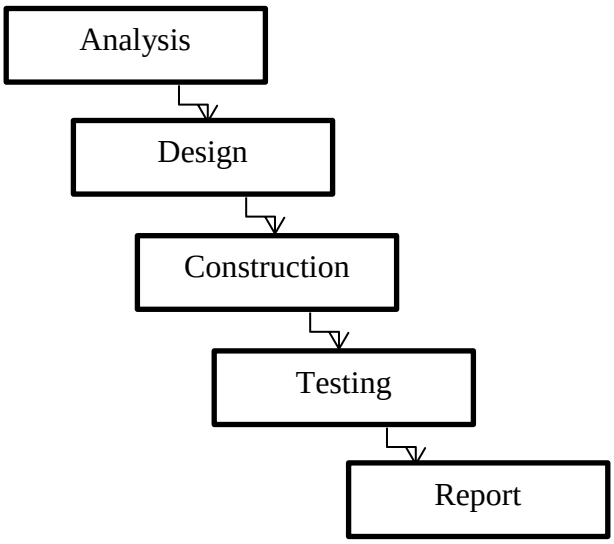
Kean Wise: the web information system of Kean University.

WKU Wise: the web information system of Wenzhou-kean University.

II. Project Organization

1. Process Model

The process model used for the WKU Wise System project is the waterfall model.



2. Organizational Structure

Functional groups
Sponsor
Project manager
Developer
tester

3.Organizational Boundaries and Interfaces

During the project, the WKU Wise System project team interacts with several other groups. These are:

Students and staff - WKU Wise System Project takes care of the contact with students and staff.

Registration affair - It is the office copes with the course registration. We need to collect course information from it and feedback any information to it.

Academic affair - It is the office responsible for the academic profile.

Financial office - the scholarship and all financial service are based on the information from it.

4. Project Responsibilities

Name	Role&Responsibilities
Jiada Ye	Project manager-Form teams and manage budgets. Act as main point of contact for the sponsor, assign duties to the rest of the team, and ensure tasks are finished on time.
Zhennan Xu	Web developer-Main job is to construct and design the web sites to meet the plan requirement.
Jiahao Zhu	Database developer-Main job is to build up a database, retrieve and store records from web activities.
Jiahong Liu	Tester-Test through web and database thorough the process and the end. Produce the test report.
Dr. Jing-Chiou Liu	Sponsor-Provide nontechnical aid to the team in planning and designing the project.

III. Managerial Process

Management Objectives and Priorities

The management objective is to deliver the WKU Wise System that can afford at most 5,000 visitors per second. The product must be finished before Sept. 1st, 2016 and of complete functions. The project manager, testers and developers work together to achieve this by respectively checking that progress is made as planned and monitoring the quality of the product.

Assumptions, Dependencies, and Constraints

1. The project is web-based and connected with database.

2. The project manager must lead the effort, and staff as well as students should offer the suggestions to improve the project.

3. It must be easily accessible by students and faculty, and be secure from unauthorized users.

4. The product must be produced before Sept. 1st, 2016 and offer buffer to prepare Winter course registration and product improvements.

5. The technical constraints include, but not limited to: the limit fund to build up servers and no art designer to support web design.

Risk Management

1. Mismanagement. As students, the team is learning what project management requires, and mistakes will be made. The requirements are also change usually, so the mismanagement is very common.

Rank: 1

Probability: High

Impact: High

Prevention: the project manager is expected to digest feedback from team members regarding their performance, and attend class sessions and make appropriate inferences regarding management from the information provided.

Correction: The project manager may be unseated by a majority vote within the team.

2. Incorrect work. All people could make mistakes, let alone new hands like us.

Rank: 2

Probability: High

Impact: High

Prevention: members should work carefully and discuss problems with the sponsor through regular meeting or in private.

Correction: The tester and developer should state the problem clearly in the report. The problem should be resolved before the due date of its task. Other members should aid him to resolve the problem.

3. Team Member Unavailability. During the course of a project, it is almost certain that some members of the team will be unavailable for certain project activities due to illness or emergency. Because there is no alternate in the project team, the work will put off if there is someone unavailable.

Rank:3

Probability: Medium

Impact: High

Prevention:

The project schedule should include some periods of leave for emergencies.

Correction:

The other team members should do some irrelevant tasks to the unavailable employees. The unavailable employees should catch up other steps afterwards.

4. Miscommunication. There are a lot of communications between members through the project, so it is very likely that miscommunication will occur.

Rank: 4

Probability: Medium

Impact: Low

Prevention:

The primary method of avoiding miscommunication is to document and verify verbal communications. For this project, the documentation and verification process will consist of meeting agendas, minutes and reports.To avoid internal miscommunication, weekly team meetings will include time for

informal socializing to help build relationships between team members.

Correction:

If miscommunications are occurring regularly, the project manager and team will reassess the documentation and verification process.

Monitoring and Controlling Mechanisms

Weekly Project Group Meetings

The project group meetings usually take place on Monday at 9:15 in Building B503. Although this time may be subject to change, e-mails will be send about the time if it changes. These meetings are meant to inform each other of the progress made on various tasks. New tasks are assigned by the project manager on these meetings. Before the meeting, all members read minutes of previous meeting. The project manager takes care of the agenda and presides the meeting.

Project metrics

Every week, the work done by the members, needs to be administrated. Each team member has to fill in their hours on a webbased log. This log needs to be filled in every Monday before 12:00. A week starts at Monday and ends at Friday.

Change control

In project, the emergency reserve and buffer time are provided to take countermeasures. All members will put down the current tasks properly and work for the change controlling.

Staffing Plan

1. According to the work functions, the developer is divided into web designer and database designer. The web designer should take web design courses; the database developer should take database management course.

2. The tester is assigned to test their works in process or at the end.

3. The project manager should take IT project management course.

IV. Technical Process

Methods, Tools, and Techniques

Survey: The objective of the project is to meet requirements from consumers and satisfy their expectations. We choose survey through e-mail questionnaire and interview to find out the true requirements.

Brainstorm: Although there is a sample of Kean Wise System, WKU Wise still needs more creations and extra functions. The brainstorm can help team members come up with more ideas.

Ganttchart: It can manage the schedule more clearly and efficiently. The evident bars can show the work period line by line and it can show the dependency by signs.

Program languages and tools: The team will utilize various programming languages and tools. The team will be using HTML, CSS, JavaScript, PHP and other tools. SQL will be used as database language in Oracle database system.

Software Documentation

First Draft: During this first draft, the assigned team members will raise questions and suggest some practical solutions during in team meetings.

Second Draft: The rough draft will be expanded upon and made more specific. All raised questions will be resolved. This draft is to be shown to the sponsor to receive initial feedback.

Third Draft: After the sponsor makes revisions, the team members will address concerns and make necessary corrections.

Final Copy: This iteration of the document will have all revisions and changes. This document will then be sent to the various stakeholders, who will sign-off in agreement.

Additional Changes: Changes after the final copy has been signed off must be approved by the development team and follow the change.

Document	Delivery date
Project charter	24/06/2016
WBS	01/07/2016
Schedule&cost estimate	11/07/2016
Project management plan	13/07/0216
Requirement specification	02/08/2016
Product report	18/11/2016

Project Support Functions

Configuration management

The purpose of configuration management is to configure the hardware such as servers and cables. The connection between WKU Wise System to the Kean Wise System also need some experts' aids to build up.

Network construction

Because China network cannot connect to the foreign network. Some techniques is demanded to solve this problem.

Information sources

All data sources are from other offices such as academic affair and financial office, so the data should be updated at the same time when the sources are released.

V. Work Packages, Schedule, and Budget

Work Packages

Work package	Start	End	Hours estimated
Project charter	23/06/2016	24/06/2016	2
Scope statement	29/06/16	01/07/2016	3
WBS	04/07/2016	06/07/2016	3
Schedule&cost baseline	08/07/2016	11/07/2016	2
Project management plan	28/06/2016	13/07/2016	12
Available servers	21/07/2016	25/07/2016	3
Requirement specification	14/07/2016	02/08/2016	14
database	26/07/2016	25/08/2016	23
website	26/07/2016	01/11/2016	71
Final test report	02/10/2016	09/11/2016	5
Product report	02/11/2016	09/11/2016	5

Dependencies

The data users input into the web site become a record which is sent and store into the database. The output is also retrieved from the database. The mapping between web site to the database must be started after completion of web design and database construction.

The grading system must begin after the completion of course registration because the grading system based on the course information which is decided by course registration. Then, the data of academic profile is decided by the grading system, so it should be later than the grading system.

The payment and scholarship could be complete at the same time because they both need payment system. However, the scholarship must be later than the academic profile.

The common user information and setting is independent to other systems. So it can be done any time before the deadline.

The web and database design should be later than the construction of hardware because of the nature of work.

Resource Requirements (What necessary skills for project staff,)

The most important resources during the project are human resources. An overview of resource utilization during the various project phases is shown as below. Other resources needed include development stations, a server where documents and information can be stored, a printer, a server to store web site information, network connectivity, a working and meeting room with sufficient tables and chairs and a telephone. During the project software is required. For example a programming language and a text editor are necessary.

Budget and Resource Allocation

Role	Number	day estimated	Pay/day	Labor cost
Project manager	1	113	$697	$78,761
developer	2	113	$697	$157,522
tester	1	113	$697	$78,761
item				cost
Software				$8,000
Hardware				$30,000

Network	$10,000
Emergency reserve	$50,000
Total	$413,044

Organization cost for each staff-month is $15k. Each staff-month is equivalent to 21.5 days. $15,000/21.5days=$697

The hardware cost is mainly distributed on the purchase of servers. The project needs 4 servers, 2 for website server and 2 for database server. For software, the programming software, like script and database programming software, are demanded to install for developers. In addition, the web site requires a domain name to address. All the web constructions are based on the network connection, so network is necessary in this project.

Schedule

Name	Begin date	End date
Project manager	20/06/16	23/11/16
identify key stakeholders	20/06/16	22/06/16
prepare project charter	23/06/16	24/06/16
hold project kick-off meeting	27/06/16	27/06/16
hold team planning meeting	28/06/16	28/06/16
prepare scope **statement**	29/06/16	01/07/16
prepare WBS	04/07/16	06/07/16
determine task resources	07/07/16	08/07/16
prepare schedule and cost baseline	11/07/16	11/07/16
identify, discuss and prioritize risks	12/07/16	13/07/16
create the survey	14/07/16	15/07/16
send out the survey	18/07/16	19/07/16
collect students' replies	20/07/16	02/08/16
hardware purchase	21/07/16	22/07/16
progress report	14/07/16	01/11/16
prepare final project report	02/11/16	09/11/16
prepare final project presentation	10/11/16	18/11/16
lesson learned	21/11/16	23/11/16
Coders&tester	23/06/16	18/11/16
hold project kick-up meeting	27/06/16	27/06/16
hold team planning meeting	23/06/16	23/06/16
determine task resources	07/07/16	07/07/16
prepare schedule and cost baseline	23/06/16	24/06/16
identity, dicuss and prioritize	12/07/16	12/07/16
Hardware	21/07/16	25/07/16
database server	26/07/16	25/08/16
web server	26/07/16	01/11/16
prepare final project report	02/11/16	09/11/16
prepare final project presentation	10/11/16	18/11/16