REQUIREMENTS ELICITATION

Group Assignment 1
Semester 2,
2019/2020

الجامعة الإسلامية العالمية ماليزيا
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA
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CSC 3506

Requirement Engineering

Section: 1

A1: Requirement Elicitation

IIUM Academic Course Repository Management System

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Table of Contents

1. Introduction……..4
2. Problem……5

2.1 Problem statement……..5

2.2 Problem Significance……5

3. Vision and Goals……..5

3.1 Vision……5

3.2 Goals ……5

3.3 Goal Modeling Diagram……6

4. RE Context……6

4.1 RE context Figure……...6

4.2 Checklist for RE context……7

5. Requirement Sources……8

5.1 Checklist for Requirement Sources……8

6. Elicitation Technique…….....9

6.1 Interview……..9

6.2 Questionnaire…… 10

6.3 Brainstorming……13

6.4 prototyping……..14

6.5 Observation……..16

1. Introduction

What is the Academic Course Repository System?

Repository refers to a central place where all the data is stored and maintained. A repository can be a place where multiple databases or files are located for distribution over a network. This is such a system where all the course information, relevant data will be stored.

Why do we need a repository system?

We need to have a repository system to maintain all the relevant files and documents regarding the subject. Which will help the lecturer and the academic staff to get all the necessary files in one place and also the external and internal auditors to have everything in one place.

Until now how is it used and maintained?

Some documents are in hardcopy and some are in softcopy. The lecturer has to give extra effort to show their progress because everything is not on the same platform. It's not easy to find the previous documents and academic staff cannot observe directly in any time. Also it is a tiresome process for the auditors to see everything in a short amount of time.

Why do we need to upgrade the current system?

Till now there is no such system where everything of a course will be stored and the academic staff can observe them directly online with an easy interface for instance with a progress bar. So it is needed to build a system where everything will be stored in one place like a platform and the current progress such as course outline, rubrics, slides, materials, examination question and answers, exercise, assignments, attendance, notes etc can be shown easily .

2. Problem

2.1 Problem Description:

The “IIUM Academic Course Repository Management System” is a proposed system where we will try to solve the general problems faced by the stakeholders such as lecturers, and the administration panel which is seeing all the relevant files and materials of a course in an automated online form. As a lecturer he/she has to upload all the file in the current system but he/she cannot locate how much of the course is already done till now and how far is left. Also they put some files on online platform and others they have to manage manually in a hard copy which is also hard for the auditors to evaluate. At the same time, the current progress is not easy to see for the administration panel. That’s why they can’t see the completeness of a course.

3. Vision and Goals

3.1 Vision

Our vision is to make a platform that is convenient to use and easy to maintain for all authorized users so that they can find all the necessary documents in one place and automate the manual processes.

3.2 Goals

G1: All the courses of IIUM will be kept in the repository in a well-managed form.

G2: Different level of access for the users to modify contents.

G3: Authorized personnel will be able to see the course progress with easy interface

3.3 Goal Model Diagram

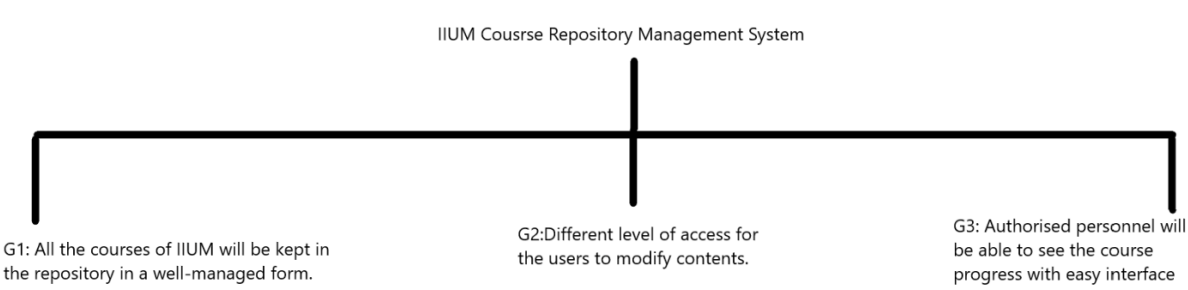
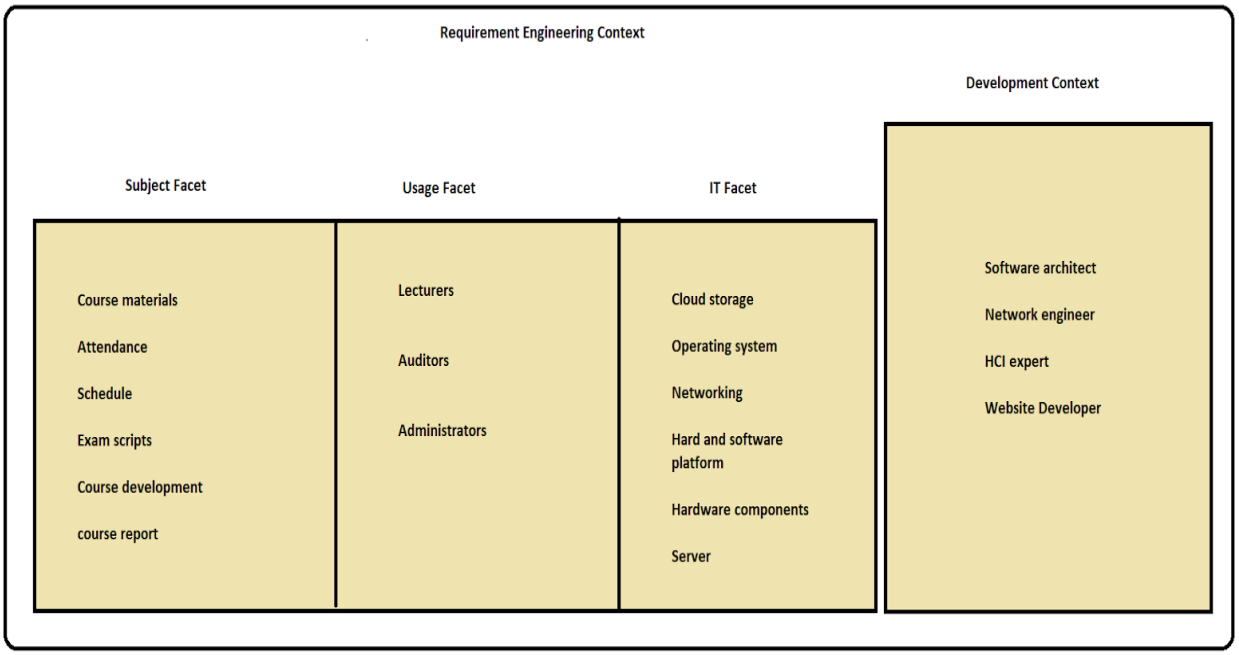


Figure: Goal Modelling Diagram

4. RE Context

4.1 RE context diagram



4.2 Checklist for RE context Object

	Usage facet	Subject facet	It system facet	Development context	RE context
Stakeholder	Lecturers, Auditors, Administrators	Course materials, attendance, schedule, Exam scripts, Course development, course report	Cloud storage, operating system , networking Hard and software platform, hardware components ,server	Software architect, Network engineer, HCI expert, Website Developer	The academic agency, security system, ISP
Documents	Lecturer schedule, Auditors checklist	Attendance Documents, rubrics, course outline document, exam documents	Network Information document, cloud regulatory documents		University regulation document, kulliyah's rules and documents, security documents
Existing systems	Italeem , google drive , kulliyah file repository, Imalum	Course materials, attendance, schedule, Course development, course report	Cloud storage, operating system , networking Hard and software platform, hardware components ,server	Software architect, Network engineer, HCI expert, Website Developer	The academic agency, security system, ISP

5. Requirement Sources

5.1 Checklist of Requirement Sources:

Stakeholders	Documents	Existing Systems
Lecturers, Auditors, Admin panel,	Attendance Documents, rubrics, course outline document, exam documents, Network Information document, cloud regulatory documents	Italeem, google drive , kulliyah file repository, Imalum

6. Elicitation Technique

There are many kinds of Elicitation techniques and assistance techniques for requirement elicitation available. These are very useful for software developers to get the best possible requirements for the project. Among these various techniques, we will try to use Interview, Questionnaire, Brainstorming, Prototyping, and Observation.

6.1 Interview

An interview is essentially a structured conversation where one participant asks a question, and the other provides answers. In common parlance, the word "interview" refers to a one-on-one conversation between an interviewer and an interviewee. In Interviews, requirements engineering teams put the questions to the stakeholder about the system that's currently used, and the system to be developed, and hence they can gather the requirements from the answers. We typically start by gathering the requirements, this could be done through a general discussion or interviews with your stakeholders, and also it may involve some graphical notation.

1. Preparation:

- When and where?
  Mid-June, via google meet because of the Covid 19 situation.
- Which type of interview you used?
  We have conducted a virtual interview via an online platform. It was an unstructured interview.
- What are the interview questions?

Questions for the Interview:

1. Can you please explain your thoughts about the university course repository management system?
2. How is your experience with the current repository management system?
3. Can you please elaborate the process that you currently follow to manage all your course files?
4. What are the problems that you face in that system?
5. If we make a similar system, what would be your expectations? What are the things you think that we should introduce in our system which would rectify the lacking belonging to the previous system?
6. From your experience (completely other domains), do you have any suggestion for us to implement in our system which would help the potential users?

- Who are the persons that you interviewed?
    1. Dr Azlin Nordin (Role as a management officer)

- How many people did you interview?
  So far one person, but our elicitation process will go on and we will interview some lecturers also.

2. Execution

After the interview, group members summarized the whole interview and found the requirements. We sum up the elicited knowledge and check again if we understood the interviewee correctly.

3. Follow up

The requirements that we have gathered so far from the interview:

- seeing all the relevant files and materials of a course in an automated online form
- has to upload all the file in the current system but he/she cannot locate how much of the course is already done till now and how far is left
- some files on online platform and others they have to manage manually in a hard copy which is also hard for the auditors to evaluate
- hard to see the progress of any specific course

6.2 Questionnaire

A questionnaire is any written set of questions, while a survey is both the set of questions and the process of collecting, aggregating, and analyzing the responses from those questions. Questionnaires provide a relatively cheap, quick and efficient way of obtaining large amounts of information from a large sample of people.

Data can be collected relatively quickly because the researcher would not need to be present when the questionnaires were completed. This is useful for large populations when interviews would be impractical.

Based on the interview and the project problem, we have created a questioner using google form and then we distributed to the lecturer of IIUM. Its and ongoing process and so far we have got 5 responses from our respected lecturers.

5 responses

Accepting responses

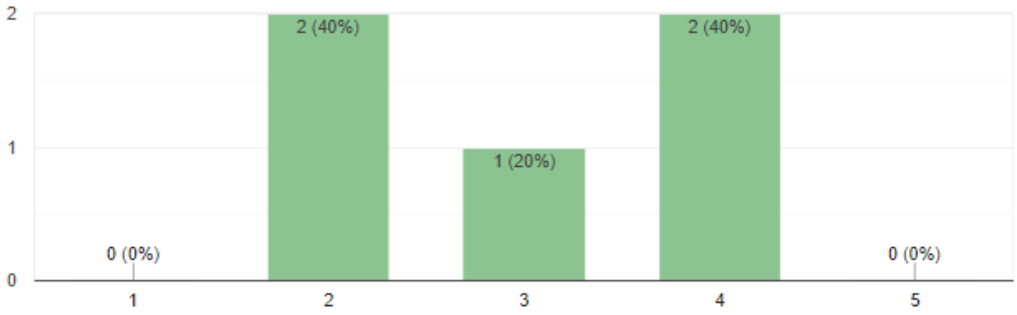
Summary | Question | Individual

Who has responded?

Email
afiquezian@gmail.com
hyaacob@iium.edu.my
msadri@iium.edu.my
jamalabedin@iium.edu.my
sabariahbakri@iium.edu.my

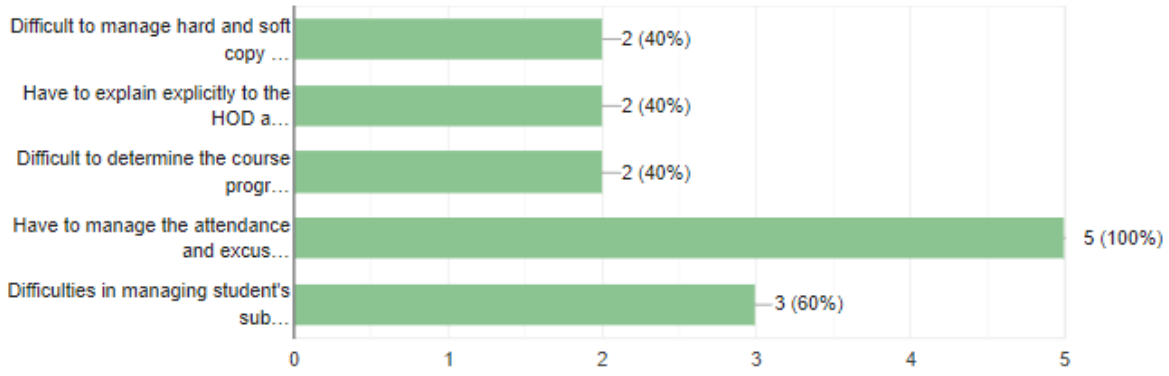
Are you satisfied with the current IIUM Academic Course Repository Management System?

5 responses



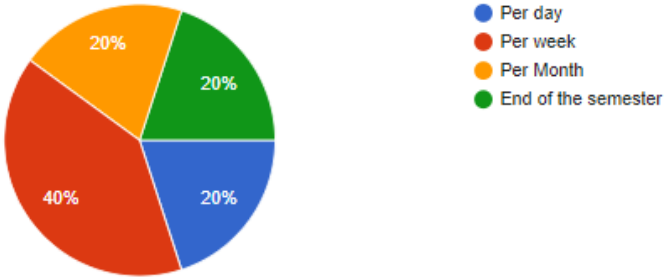
What are the difficulties you have faced with this current system?

5 responses



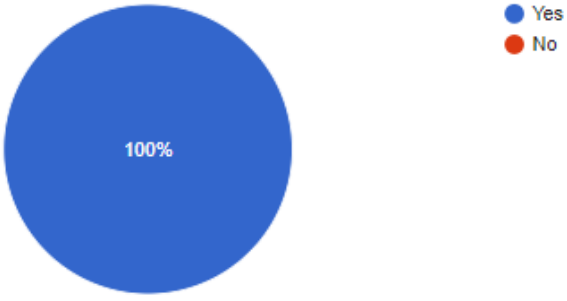
When do you generally update your course materials i.e assignments, assessment marks, schedules etc.

5 responses



Would you like if we make a system where all the course files would be stored on an online platform and you'll be able to see the course progress?

5 responses



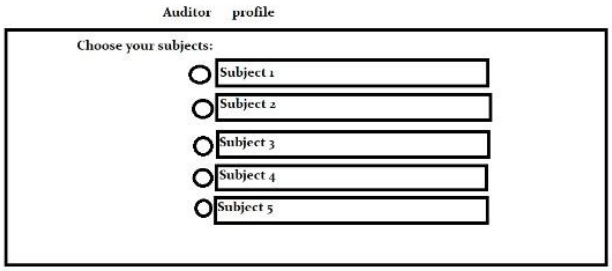
6.3 Brainstorming

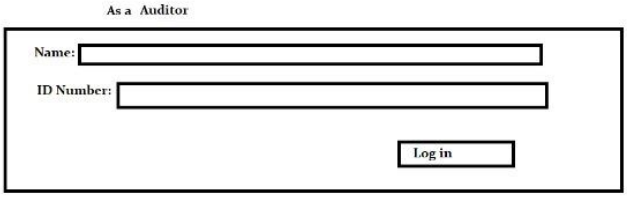
Brainstorming is a method for generating ideas to solve a design problem. It usually involves a group, under the direction of a facilitator. The strength of brainstorming is the potential participants have in drawing associations between their ideas in a free-thinking environment, thereby broadening the solution space.

6.4 Prototyping

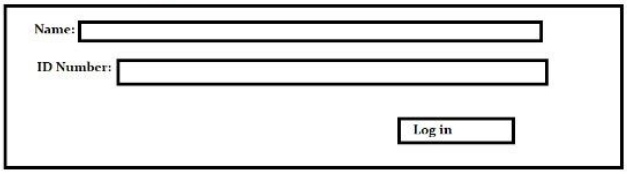
A prototype is an early sample, model, or release of a product built to test a concept or process. It is a term used in a variety of contexts, including semantics, design, electronics, and software programming. A prototype is generally used to evaluate a new design to enhance precision by system analysts and users.

Some of the sample prototypes of our system:

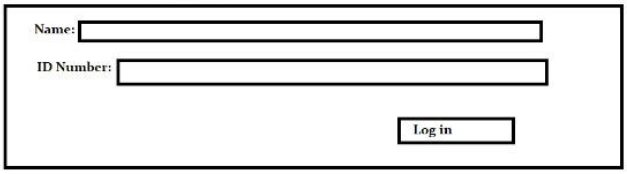




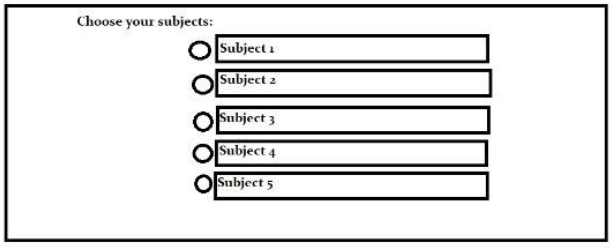
As a Teacher

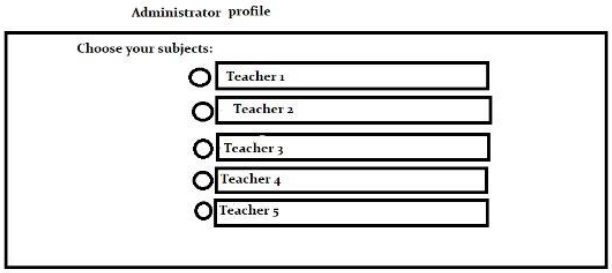


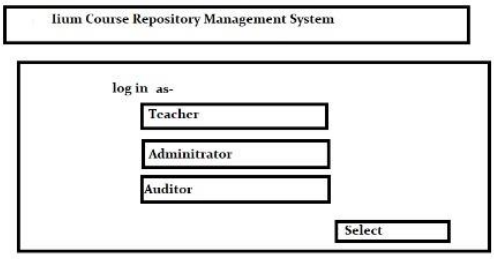
As a Administrator



Teacher profile







6.5 Observation

The observation technique is an effective means of deciphering how a user does their job by conducting an assessment of their work environment. This technique can be used to verify requirements and deliver instant requirements worthy of consideration.