New Quantitative Study for the Student Record Retrieval System

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Abstract

Web development to become a global knowledge web development , it has taken numerous steps to improve its information systems, strengthen internally and externally focused knowledge-sharing activities, and foster broader global knowledge-sharing initiatives, all in support of enhancing the web development and its partners' and clients' access to and sharing of ideas .A known problem in university of Malaya (UM) in its website UMISISWEB show a student record for individual semesters which student have to access one by one and does not show it as a record of all semesters in one border. For the above mentioned reason, A new enhanced system of web development using quantitative method is presented. The enhancement to the system aimed to allow the student to view his data record which is Matric, name, member of subject Grad point total, CGPA as well as session years and semester ready to be printed in one page. The proposed system has been developed using ASP.Net.

Keyword:
Student Record Retrieval System (SRRS), Knowledge Sharing, web development.

1. Introduction

As background to an assessment of the web development knowledge-sharing activities, this paper presents an exploration of the literature on the factors that can affect knowledge sharing success [1],[2]. Knowledge management involves the panoply of procedures and techniques used to get the most from an organization's tacit and codified know-how [3]. While defined in many different ways, knowledge management generally refers to how organizations create, retain, and share knowledge [4],[5]. The study of knowledge sharing, which is the means by which an organization obtains access to its own and other organizations' knowledge, has emerged as a key research area from a broad and deep field of study on technology transfer and innovation, and more recently from the field of strategic management. Increasingly, knowledge-sharing research has moved to an organizational learning perspective. Indeed, experience and research suggest that successful knowledge sharing involves extended learning processes rather than simple communication processes, as ideas related to development and innovation need to be made locally applicable with the adaptation being done by the 'incumbent firms' [4], [6] or

'the local doers of development' [7] for the ideas to be successfully implemented.

2. Methodology

It is important for fallow the strategy of the research to choice the method that will be employed in the particular study. According to May (2001) "quantitative research aims to describe or explain the characteristics or opinions of a population through the use of a representative sample" [8], and thus the author needs to use the quantitative research, however qualitative research is associated with participant's observation and interviewing and is preferable when the data of examination are complex and cannot be quantified [9]. In this case the author will be in need for use qualitative research as well. Quantitative and qualitative methods involve different research strategies and the decision about which strategy to employ depends on the research situation [10]. Quantitative research generally entails a more deductive approach to the relationship between theory and research in contrast with qualitative research that generally entails a more inductive approach. This means that the first one takes the theory as the starting point of investigation and functions to produce empirical evidence to test that theory.

A.　Questionnaire

The use of a questionnaire is the most appropriate method to collect the quantitative data regarding the fact that is an inexpensive and fast way to gather data from a potentially large number of respondents [11]. Therefore, comparing with the scheduled interviews, questionnaire is more convenient for responders because it offers them the freedom to complete it the time and at the speed they want [12].

B.　Demographic Features of the Respondents

The survey respondents were asked as to which age group they belonged to. table 1 shows the breakdown of the respondents in terms of age group, nationality and gender. As depicted in table 1 and figure 1, the responses revealed was 14% of the respondents are from the 17 – 23 category while 57 %   the respondents are from the 24 – 28 age

category. In the more than 28 years of age category, 29 % of the respondents fall into this category.

Table 1: Breakdown in terms of age, nationality and gender

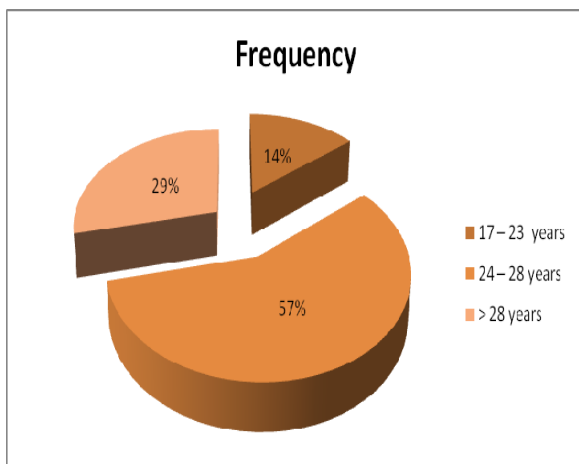| Age		Nationality		Gender	
17 - 23	5	Local	20	Male	17
24 - 28	20	International	15	Female	18
>28	10				

Figure 1 Frequency depend on the age

Figures 2, 15 of the respondents are international users and this indicates that quit big number of the respondents in the Kuala Lumpur area are from overseas. Figure.3 reflects that eighteen out of thirty five respondents are female users reflecting that the majority of the users are female.
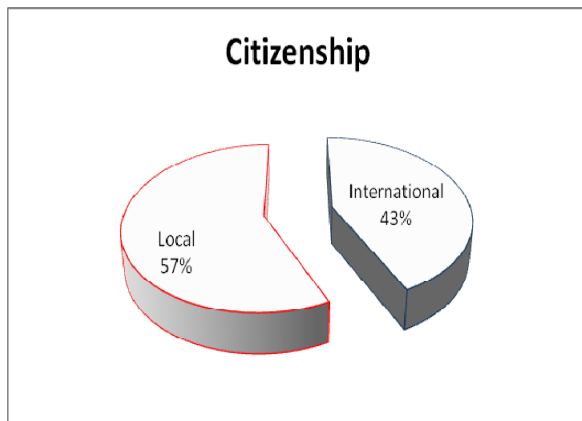

Figure.2: Ratio of local people in relation to international people
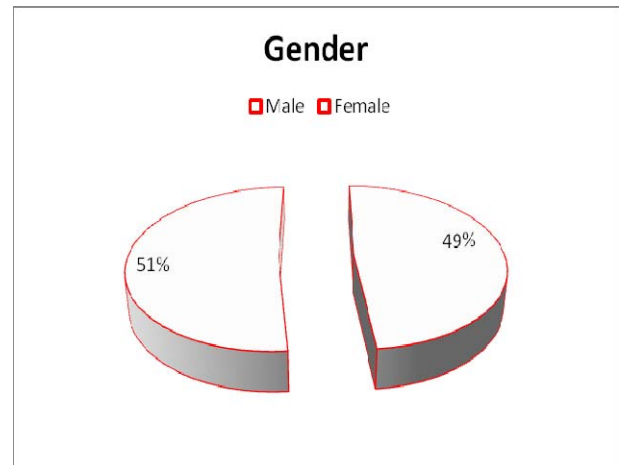

Figure 3: The ratio of male respondents to female

For the question one which is, how long you have been using the internet, as it shown in figure.4, the 43% of respondents have used the Internet between one to five years. 50% have used it more than five years twenty five. Only 7% of the participants have experience less than one year.
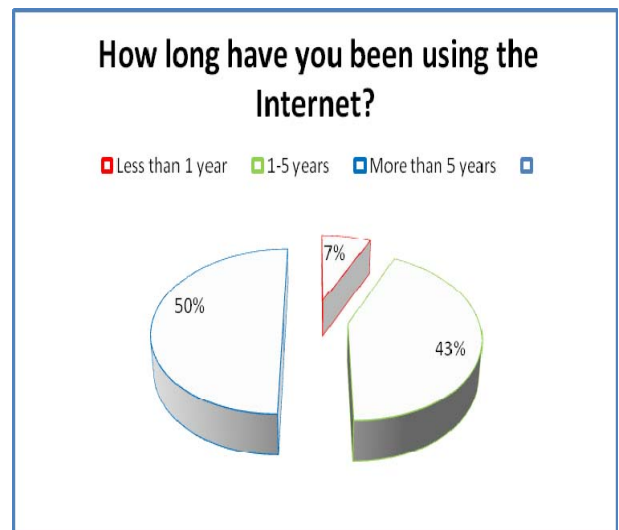

Figure 4 Internet Experience

In this question the author would like to make quantitative evaluation to the electronic forms at the faculty of computer science and information technology/ University Malaya and how far the people are comfortable with the current system, the respond shows the people mostly don't like or feel offended from the electronic forms over there. 48% ranked one, 26% ranked two, 17% ranked three, 3% ranked four, and 6% ranked five. Refer to figure 5.
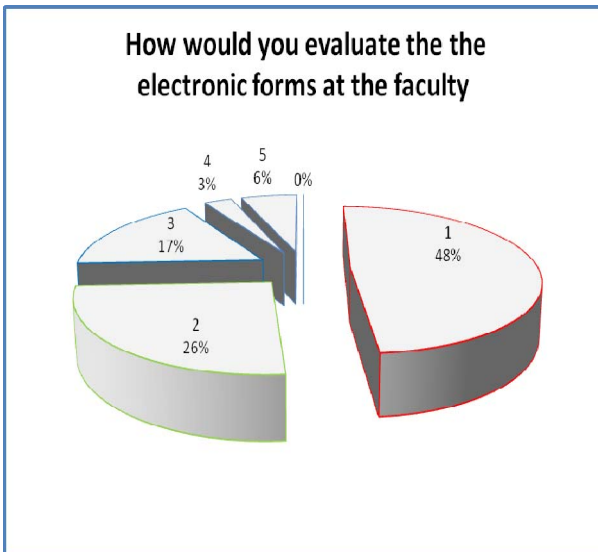
Figure 5 evaluate the electronic forms

Next figure , figure 6 shows the ratio of the people who has been interrupted by the electronic forms at the faculty, as it has been clearly shown below, 80% from the respond said yes, we are upset from FSKTM form, while 14% said no we are ok with the system. Only 16% said we don't know.
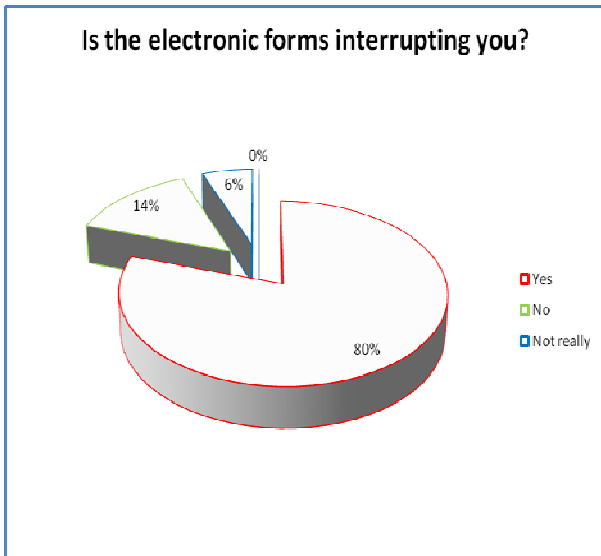

Figure 6 electronic forms interrupting

3. System Analysis of SRRS

A.   System Requirement Analysis

The purpose of system requirements analysis is to get a thorough and detailed understanding of the business need as defined in Project Origination and captured in the Business case [13].

i.   Log-In

Use case: Login

Figure 7. Login

USER login SRRS database
Brief description:
This use case is available on the interface of the system; users with authority (username and   password) can enter SRRS.
Initial step-by-step description:
- The system displays the 'login' link.
- The user enters the username and password.
- His system authenticates the user by comparing the username and password with the database.
- The system displays the suitable models to the user to sign in.

ii.   Log-Out

Use case: Logout

Figure8. Logout

USER logout of SRRS
Brief description:
This use case is there for user to log out of SRRS
Initial step-by-step description:
- User press 'logout' button.
- The system closes itself.
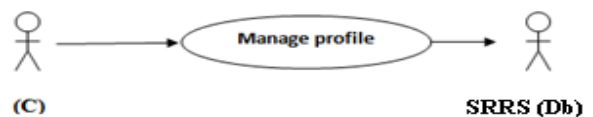
iii.   Manage

Use case: manage profile

Figure 9. Manage Profile

Brief Description:

This use case is used to manage user profile
Initial Step-By-Step Description:
- User press link.
- Sir page shown and user can edit.
- User must save changes to profile.
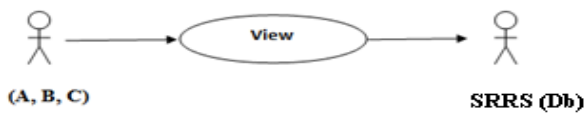
iv. <u>View</u>

Use case: View

Figure 10. View

Brief Description:
This use case is used to view results or profiles
Initial Step-By-Step Description:
- User clicks view.
- SRRS will show the required data.
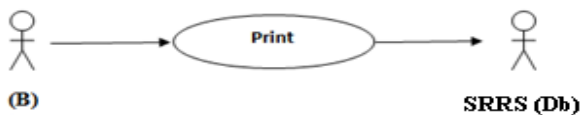
v. <u>Print</u>

Use case: print

Figure 11. Print

Brief Description:
The use case print is used by Admin to print records for requesting students.
Initial step by step description:
- Admin chooses the record.
- Admin press print, printer prompt page appear.
- Admin clicks print.

vi. <u>Save</u>

Use Case: Save or upload marks.

Figure 12. Save

Brief Description:
This use case is initiated by the Lecturer to upload student's marks.
Initial step by step description:
- Lecturer selects subject and upload marks.
- Lecturer press saves.

vii. <u>Create Account</u>

Figure 13.Create Account

Brief Description:
This use case used by admin to create a new account Initial Step-By-Step Description:
- Admin press button to create new profile.
- Admin writes new info.
- And saves changes.

viii. <u>Delete</u>
Use case: Delete

Figure 14. Delete

Brief Description
This use case is used by Admin to remove any data or profile from SRRS system.
Initial Step-By-Step Description:
- Admin selects manage profile.
- Selects delete.
- System will prompt (are you sure you want to delete this item?)
- Info or data will be deleted from SRRS database when selecting a (yes).
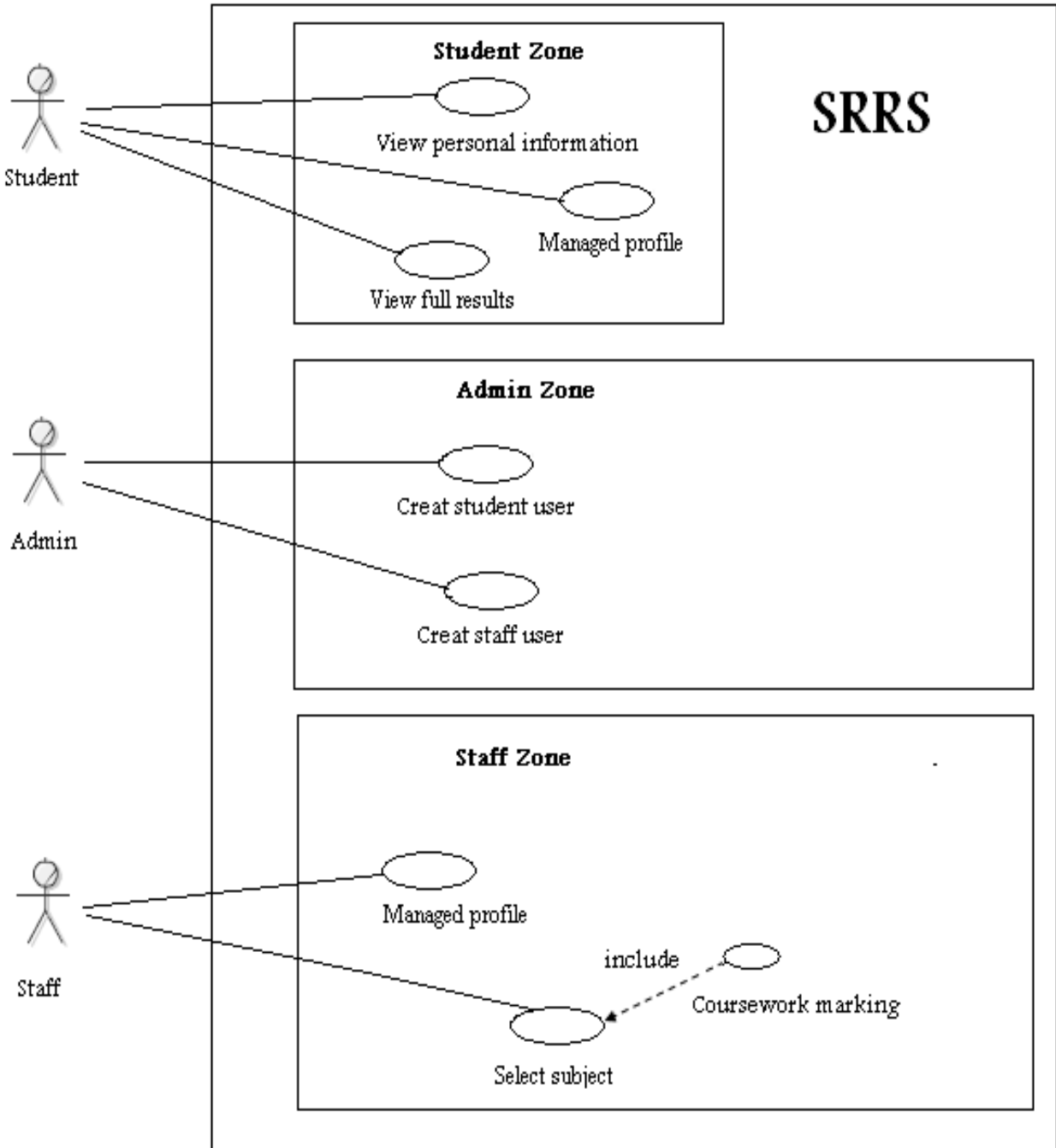
B. System module

Figure 15: System Module

4. Interfaces of the SRRS development

Figure 16 shown the Username and Password Student Field

Figure 17 Appear Metric, name, member of subject Grad point total, CGPA as well as session years and semester ready to be printed in one page.
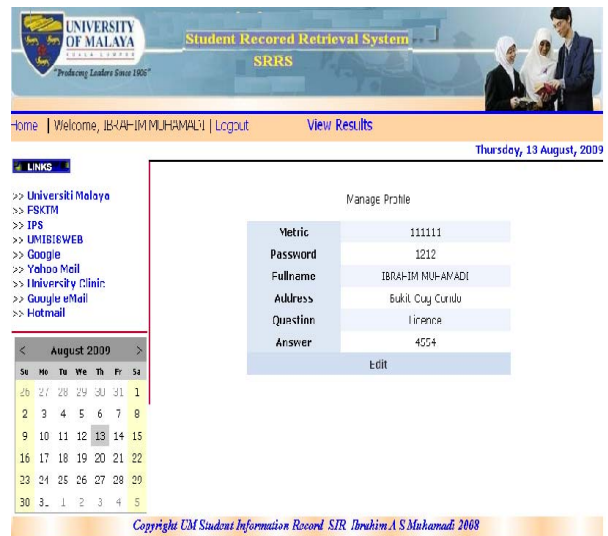

Figure 18 shown the manage profile

Figure 19 View results for all subject who is taken for previous semesters with year for finished and number for semester

5. Conclusion

In conclusion we manage to develop (SRRS) Student Record Retrieval System by means of using a quantitative study. This system developed according to requirements set by the users themselves after analyzing the results of their responses.

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