

Data Collection Report- Assignment 2



TEAM INNOVA



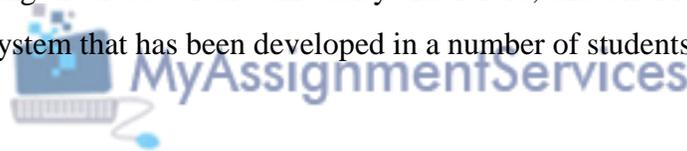
Process Documentation for the Implementation of Student Management System

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Abstract

The project task computerizes student management system. The Information and Communication Technology (ICT) has developed two applications in the system; Windows based and Web based. The windows based application concentrate on the activities such as offline student enrolling, transcript and exam card generation, and creating the lectures and examination timetable. On the other hand, the web application assists turnout documenting by the homeroom lecturers, to scrutiny status of the students by the management of the school. The student management system can solve the issues of the timetable in the university. Therefore, the project has provided an easy search tool that has been employed during allotment of each lecturer-unit code to a time slot. Therefore, a database has been employed to implement restrictions and to store information. The archetype has been examined with the data of the university. It has been seen that the system effectively registers students, smooth the progress of turnout enrolling by the lectures and generates different reports such as examination card, transcript, and a practicable timetable that is pleasing the needs of the university. Therefore, this brief report will be analyzing the student management system that has been developed in a number of students in the university.



Introduction

In every state the education system creates the pivot. For this reason, it is beneficial to offer a healthy education base to the students to make sure the growth of open-minded international residents protecting the prospect for everyone. Enhanced technology accessible today plays an important function in rationalizing education correlated protocols to advance unity among students, lecturers, parents and the school staff.

Therefore, education is essential to growth. In many continents in the world it is the one which declining poverty, inequality, and underdevelopment and lays out a base for protracted economic growth (Rever, 2016). With this aspire recently the federal government has offered particular importance to the educational sector and universities development operations such as incessant development for lecturers, training and induction, and promoting lecturers and capacitating universities with manpower and substances are among the key activities which have taken universities countrywide. In order to support and make simpler these activities one of the core tool is to have computerized student management system.

The ICT Global Learning Management offers different educational courses to students. They have a wide range of English courses, professional training, and graduate internships. They are

specialised in delivering professional courses and training. The ICT Global Learning Management needs to keep record of a great number of files and data related to students. The data management is currently maintained manually. That is due to the fact that there is no computer based system in place.

The organisation has many students and finds it challenging to handle the records and information using the traditional manual method. All the process like Admissions, enrolments, student finance and reporting are done through excel sheets. The manual handling of the data is time-consuming and prone to errors. So, ICT Global Learning Management is looking for a computer based information system that facilitates quick data access providing and appropriate interfaces for staff. According to the ICT manager, the project should focus on creation of a student management system that would allow approved members to access the academic record of students.

The Student Management System (SMS) comprises of activities such as enrolling students, turnout record storing to manage absentees, creating examination cards, creating official transcript, preparing timetable and creating various reports for the lecturers, parents, and university official and the other shareholders of the university. Computerization is the use of modern technology to reinstate manpower with machine that can perform faster and more incessantly (Mohamed, 2016). By computerizing SMS records that took up many huge storage space rooms can be piled on few disks. Transcript images can be glossed. Therefore, it declines the time to recover old transcripts from longer hours to few seconds. Therefore, this brief research paper will be analyzing the project aim/objectives, problems to be solved by the SMS and largely the theories to be used to develop and implement the system to make it effective.

Aims of the Project

1. The aim of the project ‘Student Management System’ is to investigate and research a system which helps to manage the data and keep records of all students.
2. The focus of this project is to facilitate access of staff to information such as enrolment, admission and finance.
3. To put in to mission and targets of the university as planned out in the corporate plan;
4. To encourage positive practice in Record Management (RM) transversely the university;
5. To make sure that records fundamental to the on the whole activity of all sections and stages of the university are recognized and conserved; and
6. To make sure the most competent utilization of time, money, people and accommodation in the university.

Objectives of the Project

1. Choosing a technology to create a system to convert the Excel based system into the computer based system.
2. To computerize the student management system;
3. To create an offline registration system;
4. To smooth the progress of presence record keeping;
5. To make possible different report generation;
6. To make it easy for the lecturers, parents, and education officials to view the progression of the students; and
7. To create an effective timetable.

Problem Statement

The university was facing challenges of storing students’ records for many years. In some cases, it was hard for the university staffs to retrieve the students’ records and brought complication in the university and sometimes triggers strife. For example, a student is supposed to complete his or her studies in a certain year but the systems the university was hard to recover the required documents to be presented to the dean of students to approve the graduation (D’ Ortensio, 9 August 2012). Therefore,

this discourages most of the students especially undergraduates. Therefore, the automated SMS will solve all these problems in the university data storage.

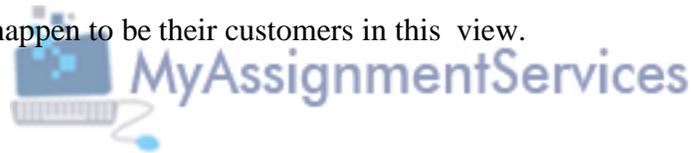
First the automated system will assist to endorse attainment and accomplishment, university must have contact to complete, precise, and appropriate information about the students. One of the advantages of computerized SMS is that the student record system will make straightforward repossession of needed information and is immense tool for university advancement by taking controls from the data collected (In Mkrttchian, 2016). In spite of the utilization of computerized SMS, some university departments are employing paper based recording system for carrying out different jobs and the university administrators be appropriate their skills of the hit and miss advance in planning the university timetable which is a time consuming process where the time wasted in preparing manual timetable can be saved by the modern technology.

Previously, most of the students' requirements were produced by hand by the record officers and lecturers. Like the university was facing challenges to control the absentees since the lecturers were issuing attendance forms where most of the students were signing in for their friends. But, the automated SMS is going to control this since the students will be signing in using their figure print via a machine which will be reflecting their lectures attendance to the university management. Additionally, recovering records of the students who have completed their course will be very easy which was challenging the university staff some years back, since most of the retrieval was done manually. Therefore, the university will be able to give various reports required by the shareholders and board members of the university. Lecturers may need to link a student with his or her parent or guardian for punitive control which require retrieving the students' records in the record department. It has been challenging to look for a record from the thousands of the similar records and scrutinized that students can take any individual asserting that he or she is their parent or guardian which develops problem in managing students. Because of this incompetence of the present less advanced technology system, the want arises to computerize SMS in order to competently handle students' turnout, to create transcript, exam cards, and different reports pleasing users and clients and to create timetable which can program courses and units for lecturers and the lectures of the students.

Adopted Theories/frameworks

Organization Learning Theory

This speculation holds that in order for the university to be both successive and performing in the recent environment that is self-motivated, it should be continuously change its goals and activities so and by doing this it will be in a position to achieve the planned goals. This is especially possibility promoters for the continuous transformation in the manner in which the university operates its actions so as to be in a position to attain the set objectives (Adekola et al., 2016). Competition, on the other hand, it calls for innovativeness which is the only path by which universities can exist in the recent energetic and competitive globe. This certain theory is in the recommended field project in the intellect that many learning organizations in the nation would like to put in place systems that absolutely controls the data of their students who happen to be their customers in this view.



Systems Management Theory

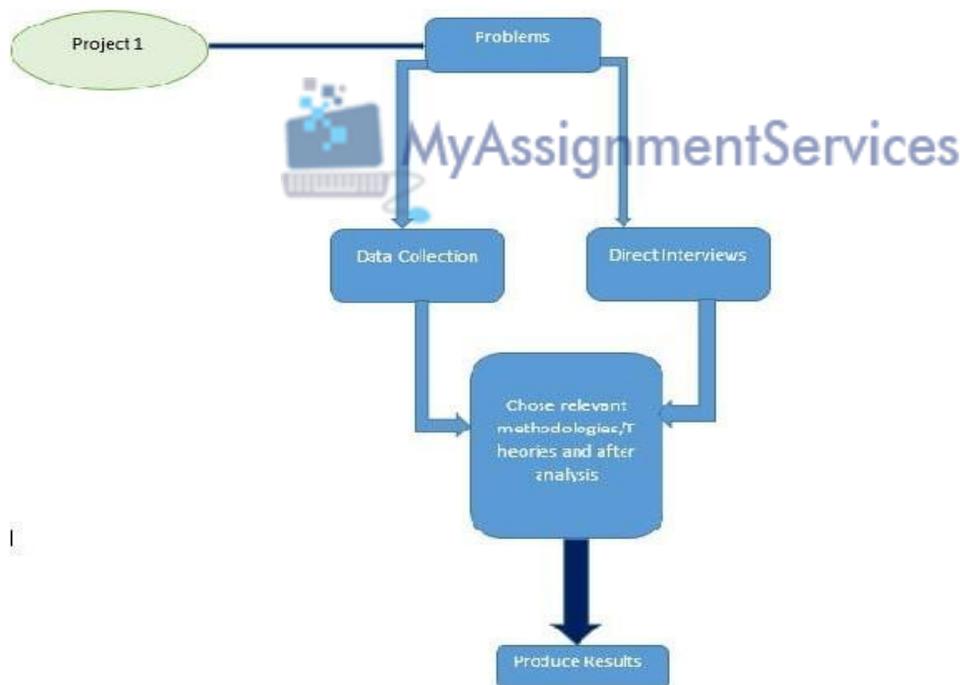
Individuals give the impression to systems for every job arise in the organization: how to get prepared for the task in the morning, how to cut the turf, and even how to do the activities. The truths are we are a community of systems. Even individuals that have no system, well, that is their have a particular that aid them to carry their duties. Therefore, systems are near us and are part of the world (Hershey, 2016). Therefore the school of thought took a step further and developed the systems management theory that argues that, system is a compilation of sections brought together to achieve some end target or objective. Therefore, when carrying out with our project we adopted to the systems management theory that helps to understand what is a system and it purpose when developed.

The theory also assists us on taking the key concepts when implementing the student management system in the university. All the project members became clear why the university needs a computerized system. So, viewing the system from that standpoint, if one section of the system fails or is removed out, the system developed cannot operate. Therefore, the university needs a system which is complete to make the work easy and produce pleasing results to students, lecturers, parents, and the university staff. The system to be implemented in the university must be complete so that it can help the university to achieve the set goals by the corporate. Therefore, that idea is actually the basic of systems management

theory. For that reason, every part of the system is important according to the work set by the corporate of the university. All pieces go together, and whereas it can without a doubt operate if one part is removed out, the functionality is damaged and the system at large.

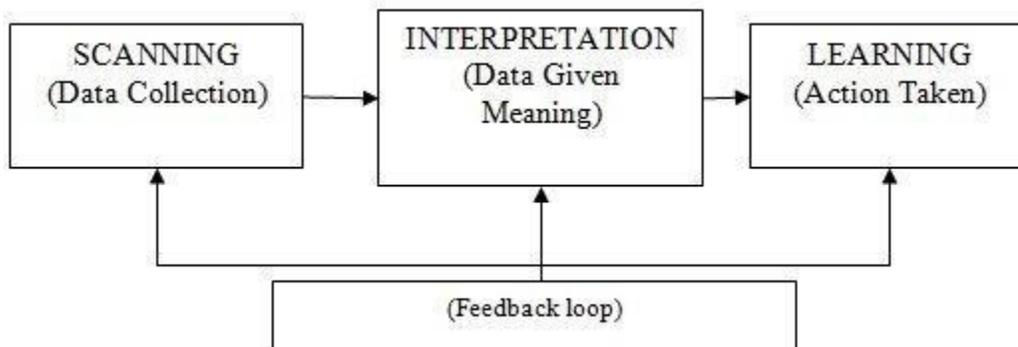
Framework

We have used different tools and methodologies for research about student management system. The research of this project started in project 1 with the main difficulties and problems of the client. We had some discussions and conferences with client. After that consult with different lecturer, experts and professionals and come up with different potential solutions. The diagram will show an outline of framework.

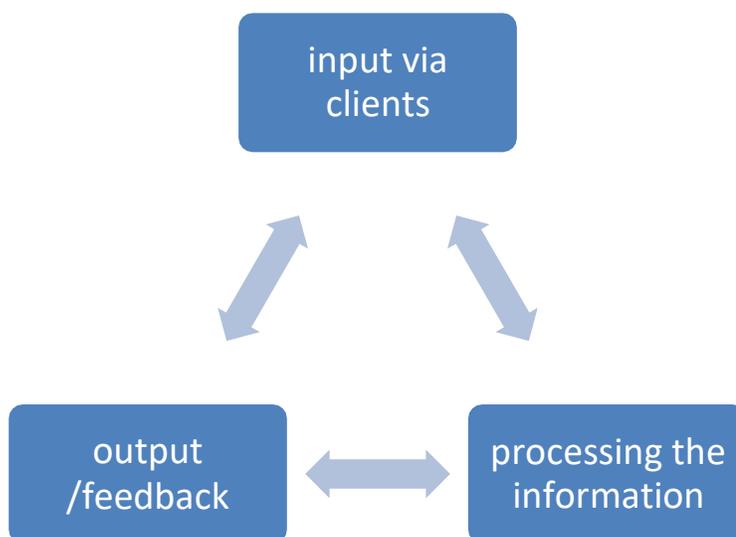


Organizational learning and system management have been selected to address the project problems?

As per the searcher team has chosen two frameworks to address the project problems. Initially, the process of the organizational theory which action is creating, retaining and transform the information within an organization. The way of the addressing the project problems are given below:-



System management theory is one the recommending theory of team innova’s project which can treat management as closed system. Which gets the input from the clients and processing the information via team member and after that giving the output to clients that can help to address the project problem via system management system. It represents below clearly.



Why were the organizational management and student management framework selected?

As the consideration of the researcher team, organization learning and system management were selected for gaining helpful information from the clients about their research. Moreover, both frameworks are seems like easy and clearly understand for the clients and team members as well as. The team innova has got the vast information about the student management but with having of vast information, team innova decided to explain it in simple, structure way and more detail manners to client that it can easily be read by the reader.

Project Methodology and Data Collection/Analysis Techniques

What data has been collected?

a) Research Design

Survey study was employed in this project to gather data by select sampling from students of outside the nation of the university to analyze two various aspects that impact insights of foreign students of the university via the service offered by the staff in the five excellence dimensions. The aim was to examine the student management system which is about to be implemented in the university (Marlow et al., 2016).

b) Population, Sampling, and Sample Size

The researchers selected samples by the random sampling technique from the students of the outside the nation who were taking their studies in the university as it was the most efficient method (Marlow et al., 2016). The sample figures observed by the investigators were concluded. Therefore, according to the population number of the students of the outside the nation was amounting to 184. Thus, the sample is corresponding to 123 students.

c) Sampling Method

Out of the 184 students from the foreign nations, the investigators allocated the questionnaire moderately to all the students as per Marlow et al. (2016); and as illustrated below and were in a position to gather the completed 19 questionnaires replied from various key and academic years of each student. 123 students managed to respond to the provided questionnaires.

Total population = 184 students from various faculties

Sample size = 123 students

The table below shows the number of the foreign students taking different faculties and of different academic year

Major	Total Population	Sample size distributed
Finance	17	11
Marketing	21	14
Engineering	6	4
Computer science	17	11
Hotel management	22	15
Law and finance	21	14
Business administration	80	54
Total	184	123

d) Research Instruments and tools

In this research tools was used for controlling the major variables in the structure. Foreign students were asked to give suggestions about the modern technology SMS with a 5-point rating scale arraying from Strongly Disagree to Strongly Agree on the twenty three questions provided. The procedure of constructing the questionnaire was as follows: section A: Background Information The question was assumed to conclude the traits of the participants affecting their studies in terms of poor system applied in the university. Part B: perception of the service offered to the students by the university staff whether they are quality or poor.

After collecting of the data, five range scales was employed to gather the information from the sample selected. Five-point ranges, questionnaire was employed to gauge the students discernment on the quality education and services offered in the university (Mohamed, 2016). Therefore, each question comprised of information to better detain the level of observation. Therefore, the higher the result the more crucial the variables are as evaluative principles.

e) How is the data being collected?

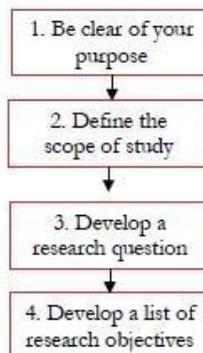
1. Individual interview.
2. Focus group discussions.
3. Surveys and questionnaires.

4. Project records.
5. Biophysical measurements.

The face to face interviews are the best way to get more real information about student management system from the expiries (Asuedu, 2017). The expertise who are using student management system from a long time they have a lot information which helps to solve our problems. As per the team Innova's views, interviews, research paper and questioner are considered appropriate for rich source of data collection. Initially, we have done some interviews with experienced staff members and coordinator as well as. The coordinators (MR. Nadil, Shenika) were given us very helpful information in the interviews to solve the problems our project regarding. We asked many questions regarding our project. Some questions are like:

1. Which system they are using for admission, finance and enrolment etc.
2. Which data base are they using?
3. How they keep the data of all students?
4. Which domain are they using?

This interview took more than 1 hour. After the recommendation of interviewers, more data has also been collected from research paper and asking questions to the experienced clients later which was proving more significant for team Innova's research. The entire data collection process entailed data interpretation and the presentation of the interpreted data accordingly.



How is the data being analysed?

The main aim of analysing data is to get serviceable and valuable material and data. The analysis will be qualitative or quantitative.

	Qualitative research	Quantitative research
Type of knowledge	Subjective	Objective
Aim	Exploratory and observational	Generalisable and testing
Characteristics	Flexible	Fixed and controlled
	Contextual portrayal	Independent and dependent variables
	Dynamic, continuous view of change	Pre- and post-measurement of change
Sampling	Purposeful	Random
Data collection	Semi-structured or unstructured	Structured
Nature of data	Narratives, quotations, descriptions	Numbers, statistics
	Value uniqueness, particularity	Replication
Analysis	Thematic	Statistical

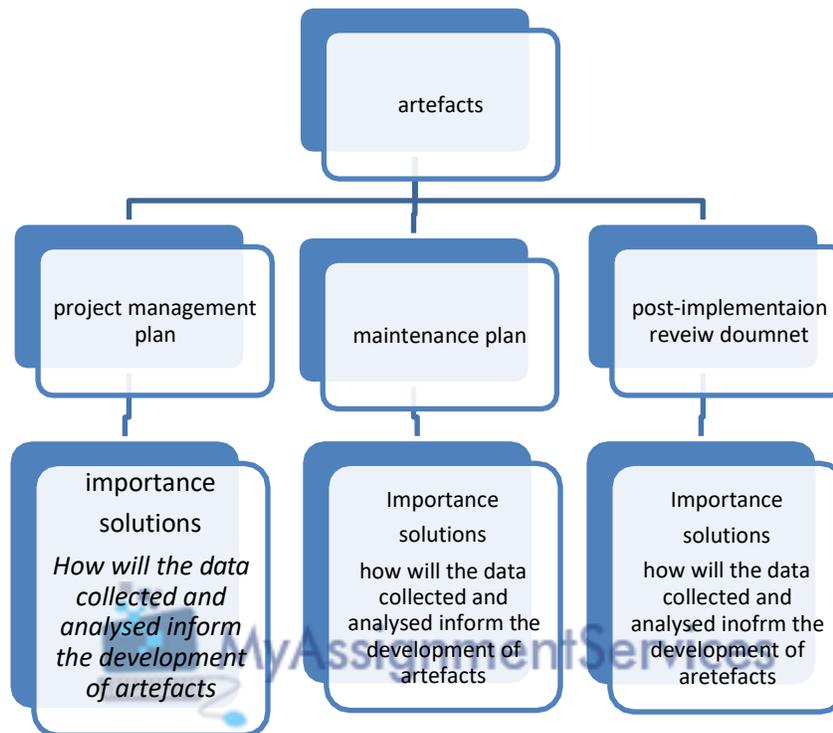
- Define and review the data.
- Identify relations between variables.
- Compare variables.
- Prediction about results.
- Identify the difference between variables.
- Descriptive Statistics were employed to analyze the degree of students' observations in general measurements the effectiveness of the student management system.

Proposed Artefact

What are the artefacts?

A project artefact is a finding or a structure in an investigation that is not a true characteristic of the object being investigated but is as a result of external forces such as the project errors and the test arrangement errors. The artifacts are clearly described in the project. The artifacts were definitely created during the project arrangement functions by research team and in the data collection processes. The aspect of data that is directly influenced by the presence of the artifact is the authenticity and the correctness of the data that was retrieved. Artifacts were primarily employed in the data analysis to

evaluate the reliability of the data that was collected from various methods employed. Artifact is evaluated through the detailed data analysis process.



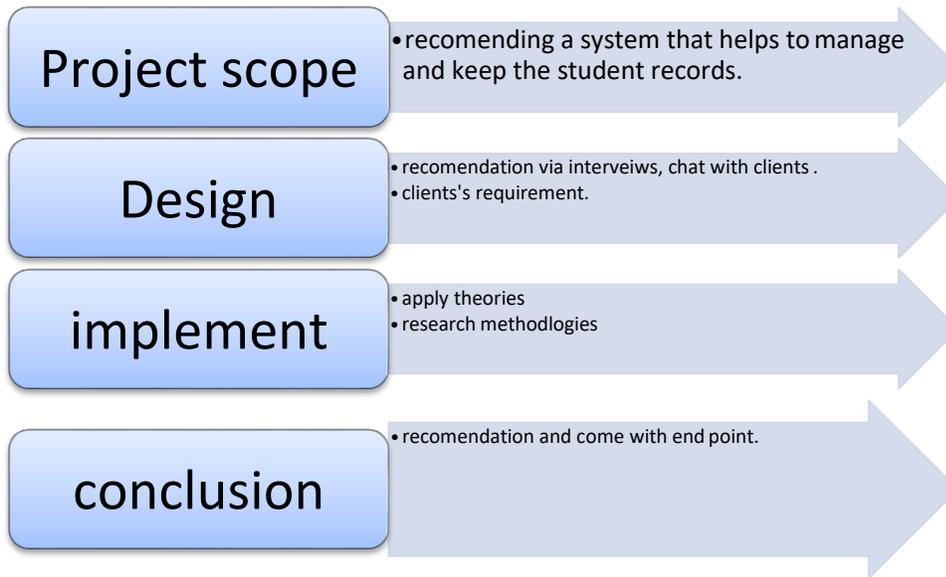
Developments of artifacts are:-

➤ Project management plan

Due to the nature of the project the research propose the project management plan as team innova's first artifact. This is an essential document which is fundamentally the blue print of the recommended project that should be executed. The project management plan is the core in planning out all the important resources both financial and human agenda for the entire project therefore offering the clearest instruction (Pahl, 2008). For that reason, no project has ever been effective without the initially laying down an apparent project management plan. Therefore, there is adequate priority to this influence. The different steps of the project management plan.

Importance of the project management plan:-

As per the team innova has given the first importance to project management plan because, no project has ever been effective without the initially laying down an apparent project management plan. So, with the coordination of the team have made the plan to execute, monitor, control and closed the project. It has been clearly explained below:-



Providing solutions to project problem:-

Project management plan is our first systematic approach that how team innova would go step by steps. So, if we say how it has been provided a solution then it helped the researcher team to go systematically way like without project management plan researcher team would not know the next step to do. In other words, can say it provided the solution by giving a particular way to research.

➤ Maintenance Plan

The other feature is the maintenance plan that is obligatory in making sure that the system once is executed is subjected to the suitable standard maintenance to keep away from occurrences of poor workmanship or the system malfunctions that might be expensive to the university. Therefore, if this artifact is utilized it will be cost effective to the university and the also the information storage will be effective and less costly since the system is checked regularly.

Importance of maintenance

Team innova has decided to maintain the project regularly that can be very helpful to come up on the solutions. So, the team innova's manager gave the proper time to project and each member of the team as well as. As per the manager, if every team member keeps eyes on the project then it would hardly be seen any errors.

Providing solutions to project problem:-

Regular maintenance is very important to come up with a solution. Some solution had been found by regular maintenance of the project like team innova's student management project was not going good before till team's manager put maintenance plan for finding right track. Later on, project was on right track with fewer errors after putting maintenance plan.

➤ Post – Implementation Review Document

The post implementation review document is also very important in this project. Therefore, this is provided the evidence that it offers a boulevard for performing a post-mortem on this regard progress something that is important in taking note the effective system to implement in the university (Pahl, 2008). The document will have the aspects of the recommended system and how each of them is expected to perform and the way it will be operating after being implemented. Therefore, this will offer a very high-quality path for the shareholders on board to make the suitable alterations or rectify the mistakes on the operability of the system.

Why team innova did post-implementation review document?

According to the team researchers, last priority gives to the post-implementation review document because of this team innova could handle the errors before execute the project. With the help of this team innova had already handle the errors.



Providing solutions to project problem:-

Post –implementation review document is document which review after completion of the project. This document provided us some solution to finding any error in the project. So, as per this review team innova was able to handle to the problem of the project.

How will the data collected and analysed inform the development of artefacts?

Team innova did the planning with management, gathered the information from different resource such as, interviews, survey and questionnaires, project records and chat with coordinators. In addition, team innova also gathered the data from online resources, web, blogs and articles. After these collected data put in these three artefacts to make an easy approach for team innova.



Project Completion Plan

Is a step by step plan for the completion of the project included?

Team innova had gone through step by step for the completion of the project that are given below: -

Task Name	Start Date	Finish Date	Duration/Days	Member Involved
Meeting with Tutor	24/03/2017	25/03/2017	1 day	Team Innova
Planning for Presentation	25/03/2017	25/03/2017	1 day	Team Innova
Analysing Client's Requirements	26/03/2017	27/03/2017	1 day	Team Innova
Meeting with Supervisor	28/03/2017	28/03/2017	1 day	Team Innova
Gathering Project requirements from the client	29/03/2017	29/04/2017	1 days	Project Manager
Dividing tasks within the team members	29/04/2017	30/03/2017	2 days	Project Manager
Working on the Project Brief Presentation	30/03/2017	30/03/2017	1 day	Team Innova
Project Brief Presentation given and submitted	31/03/2017	31/03/2017	1 days	Team Innova

Critical Brainstorming	01/04/2017	02/04/2017	2 day	Team Innova
Extra requirements For Project	03/04/2017	05/04/2017	3 day	Project Manager
Isolating Tasks for Extra Requirements	06/04/2017	07/04/2017	2 day	Team Innova
Analyse & Re-examine Client's requirements	08/04/2017	09/04/2017	2 days	Team Innova
Collect and analyze more data via research reports, case studies, interviews	10/04/2017	25/04/2017	16 days	Team
Working on Report	26/04/2017	11/05/2017	16 days	Team Innova
Meeting with supervisor	12/05/2017	12/05/2017	1 Day	Team Innova
Again, start collection of more data for analysis	13/05/2017	16/05/2017	4 days	Team Innova

Meeting with supervisor	17/05/2017	17/05/2017	1 days	Team Innova
Fetching Information From Client's	18/05/2017	19/05/2017	2 day	Team Innova
Writing a Finishing Report	20/05/2017	27/05/2017	8 days	Team Innova
Review and changes in Final Report	28/05/2017	02/06/2017	6 days	Team Innova
Final Project report submission	02/06/2017	02/06/2017	1 days	Project Manager
Start work on Individual report	03/06/2017	06/06/2017	4 day	Team Innova
Start work on Presentation	07/06/2017	08/06/2017	2 day	Team Innova
Submission of individual Report	09/06/2017	09/06/2017	1day	Team Innova
Final Presentation	09/06/2017	09/06/2017	1day	Team Innova

Conclusion

The project has concentrated on the basis features of making sure that the student management system is employed with the most attractive aspects that assure the protection of the information stored in the system. The team has investigated on various prospects, database, and modules which would be valuable for the Student Management System (SMS) (Marlow et al., 2016). In this project, we have come to realize that the ICT has obstacles that eventually make the systems implemented discouraging to the users. Therefore, we have come up with some solutions to these barriers so that we can make these systems effective and productive to the learning institutions. By doing so, the student management system will be in a position to solve all the problems the university is facing such as incompetence timetable, time consuming projects, production of exam cards, production of the official transcripts, and storing of the students and shareholders information.



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