



ISLAMIC UNIVERSITY OF TECHNOLOGY

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## IUT MANAGEMENT SYSTEM

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for the degree of Bachelor of Science in Computer Science and Engineering*

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# Declaration of Authorship

We, Md. Sajjad Raihan, Md. Adnan Rahman & Shafii said declare that this project titled, 'IUT MANAGEMENT SYSTEM' and the work presented in it are our own. We confirm that:

- This work was done wholly while in candidature for a Bachelor degree at this University.
- Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated.
- Where I have consulted the published work of others, this is always clearly attributed.

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# IUT MANAGEMENT SYSTEM

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ISLAMIC UNIVERSITY OF TECHNOLOGY

## *Abstract*

CSE

Department of Computer Science and Engineering

Bachelor of Science in Computer Science and Engineering

IUT MANAGEMENT SYSTEM

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The need for a good and stable management system for an university was felt from the both student and the teacher sides to ease the management system and to introduce or update the new features to it. Some management systems in IUT is totally manual. The data managing system is also not efficient. Though its traditional processes are established and have been used for a long time and even now, yet it requires a wind of change. This is essential as because in a world of rapid technological advancement we should not be the last to join the ranks. we hope and believe that this project help to solve the upcoming problems and can ensure the use of modern technologies and features.

# *Acknowledgements*

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**Prof. Dr. M.A. Mottalib**  
**Head of the Department**  
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*Special thanks to:*

**Mr. Md. Moniruzzaman**  
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# Chapter 1

## Introduction

### 1.1 What is a Management System :

Management is all organizational activities and the act of coordinating the efforts of people to accomplish desired goals and objectives using available resources efficiently and effectively. Management comprises planning, organizing, staffing, leading or directing, and controlling an organization (a group of one or more people or entities) or effort for the purpose of accomplishing a goal. Management comprises planning, organizing, staffing, leading or directing, and controlling an organization (a group of one or more people or entities) or effort for the purpose of accomplishing a goal. The term 'system' has a variety of meanings in different contexts. For example, it is used in relation to the 'nervous system' or the 'digestive system', but this usage is different from its use in relation to business and the management of an organization. So we can define the management system by these three properties: " A system to manage a particular activity or a specific type of asset - for example, user relationships, preventive maintenance , materials . " The means to manage all relevant areas of operation, often in relation to a specific aspect - for example, quality, environment, information security. " The way in which every aspect of an organization is managed.

In my own word I can say that a management system is the system of an organization which individually or collectively organize or manipulate a single or multiple tasks related to the existing organizational system.

## 1.2 Functions And Features of management system:

Management operates through various functions, often classified as planning, organizing, staffing, leading/directing, controlling/monitoring and motivation. ” Planning: Deciding what needs to happen in the future (today, next week, next month, next year, over the next five years, etc.) and generating plans for action. ” Organizing: (Implementation)pattern of relationships among workers, making optimum use of the resources required to enable the successful carrying out of plans. ” Staffing: Job analysis, recruitment and hiring for appropriate jobs. ” Leading/directing: Determining what must be done in a situation and getting people to do it. ” Controlling/monitoring: Checking progress against plans. ” Motivation: Motivation is also a kind of basic function of management, because without motivation, employees cannot work effectively. If motivation does not take place in an organization, then employees may not contribute to the other functions (which are usually set by top-level management). Features of the good management system is the properties that make the system more usable, time-saving, user-friendly and informative. Some features of a good management system are following: 1. Easy Forms Design 2. Fully customizable demographics 3. Flexible Report Distribution Option 4. Management Reporting Of Productivity 5. System Security Features 6. Turnaround Time reporting 7. Communicating Knowledge Facilities 8. Powerful report Search Features 9. Calculation Transcription Productivity 10. Powerful Search options and Features 11. Remote Review Option 12. Strong Database Facilities 13. Web Server Based System Status Information.

## 1.3 Why Management System:

Management is the manipulation of the human capital of an enterprise to contribute to the success of the enterprise. This implies effective communication, an enterprise environment (as opposed to a physical or mechanical mechanism), implies human motivation and implies some sort of successful progress or system outcome. As such, management is not the manipulation of a mechanism (machine or automated program), not the herding of animals, and can occur in both a legal as well as illegal enterprise or environment. Based on this, management must have humans, communication, and a positive enterprise endeavor. Plans, measurements, motivational psychological tools, goals, and

economic measures (profit, etc.) may or may not be necessary components for there to be management.

#### **1.4 Who will use this management system:**

A management system is very smooth and systematic approach to manipulate, imply, use and store data of and organization. The users of the management system can be everyone but the purpose of the users use will be different. Furthermore the accessibility and the usability will be differ from the types of users of it. Each group of user will have each sectors and the process of use the system. For example the system can be universally accessible for just taking information and also some people can change the given data or system. So the usability is variable for the different types of people who will going to use it. The main classification of the users of this system will be three types: 1. Universal User(normal persons or students) 2. Regular User(Employee and clerks) 3. Admin(The manager )

#### **1.5 What We Have Is This Management System:**

The management system has some features and facilities regarding some management system of our university. The management system provides some straight-forward approach or process of some managerial and collective work for the maintenance and operating the whole management system in the university. Our management system is a web-based management system that is particularly divided into some categories based on the functionalities and the users demand. The management system we are working on consists of some functionalities based on user demand and the timeliness. This management system is for university use so that the nonacademic and academic processes will get help from it. The main functionalities such as checking the authentication, searching, updating, deleting, allocating, dislocating, Calculating and information enquiry. Based on this kinds of functionalities the system are build as a web based application. It has many databases connected with each other so that the functionalities are universal that is an authorized person can enter into it manipulate it from anywhere, no need of a base station or center server.

## 1.6 How It Is Beneficial For The People:

The management is beneficial for the people who are the users of the management system as well as the manager of the system who is on the pinnacle position of it. This university management system is helpful because " The system provides a systematic approach for searching, updating, allocating, delocating ,finding, managing and manipulating data related to the system. " Web-based approaches provide global user efficiencies and more people can use it and control it anywhere anytime. " Search-box , header-footers provides quick access to the system and get the required information smartly and quickly. " Categorize searching is another beneficial feature of the system ensure the required things just mentioning its type. " Multi management system provide an elaborate option of manipulating the system from the client level to the at most admin level. " This open software will hopefully reduce the miss management ,corruption and session loss of the whole process.. " It will simplify the process and make it digitalized instead of analogous interpretation of data and management system. It ease the work of the clients and the caretaker of each sector by providing the updated data and information intime. " Security is ensured by login system and each and every manager of the different systems have their different separable account. " Direct participation of the students make the problems focused and get the different ideas of them to solve the upcoming problems.

## 1.7 References

The 'natbib' package is used to format the bibliography and inserts references such as this one [? ]. The options used in the 'Thesis.tex' file mean that the references are listed in numerical order as they appear in the text. Multiple references are rearranged in numerical order (e.g. [? ? ]) and multiple, sequential references become reformatted to a reference range (e.g. [? ? ? ]). This is done automatically for you. To see how you use references, have a look at the 'Chapter1.tex' source file. Many reference managers allow you to simply drag the reference into the document as you type.

Figures usually should have labels just in case you need to refer to them (such as in Figure ??). The '\caption' command contains two parts, the first part, inside the square brackets is the title that will appear in the 'List of Figures', and so

should be short. The second part in the curly brackets should contain the longer and more descriptive caption text.

The ‘`\rule`’ command is optional and simply puts an aesthetic horizontal line below the image. If you do this for one image, do it for all of them.

The L<sup>A</sup>T<sub>E</sub>X Thesis Template is able to use figures that are either in the PDF or JPEG file format.

## Chapter 2

# 2. Goals and objectives of the Thesis work

### 2.1 Project Goals AND Objectives

The name of our project is "The IUT Management System". The main goal of this project has set that to take the all management processes of Islamic University Of technology under a web based universal system. This system is a website that is globally accessible in the World Wide Web that any person can use it within their limited access fixed earlier. Before starting our project we have been watching the problem of the existing management system and the student complain for 3 three years of our student life in IUT. Many of teachers, students as well as stuffs have concern us about the problems and requirements regarding the present system. Basically in IUT the all systems are going on with the combination of the analog and the software system though the softwares have many difficulties and limitations that can be solved by a central management. We focus on a centralized system that has a unique or a centralized database and all systems can connect to it. The system will focus on the easy access and the manipulation of the user encertaining the hard security as well. Protected single center database with secured access to it make the system more reliable to the user as well as safe. The project goal to ensure the more and more relevant information for the student and the person not directly related to the management. Quick finding the wanted information is a very needy concern of the present management system because in it people often find difficulties to find out something. We aimed at providing some extra feature to ensure quick search of the information you need. The project is set based on some criteria from our

observation of the entire system and the feedback from the other. The objectives are divided into some topic and are described below: ” To enable the employees towards achievement of superior standards of work performance. ” To help the employees in identifying the knowledge and skills required for performing the job efficiently as this would drive their focus towards performing the right task in the right way. ” Boosting the performance of the employees by encouraging employee empowerment, motivation and implementation of an effective reward mechanism. ” Promoting a two way system of communication between the supervisors and the employees for clarifying expectations about the roles and accountabilities, communicating the functional and organizational goals, providing a regular and a transparent feedback for improving employee performance and continuous coaching. ” Identifying the barriers to effective performance and resolving those barriers through constant monitoring, coaching and development interventions. ” Creating a basis for several administrative decisions strategic planning, succession planning, promotions and performance based payment. ” Promoting personal growth and advancement in the career of the employees by helping them in acquiring the desired knowledge and skills. ” Ensuring direct participation of the different views of users into the system and participate as a evaluator.

## **2.2 Usability:**

Usability means making products and systems easier to use, and matching them more closely to user needs and requirements. Usability of a system refers to the ability of the system to facilitate the user. The usability is the scale or the measurement of a system to determine that how much efficient it is as a practical approach and implementation. The usability determine the value of a system in the market as well as the popularity mostly depends on it. In a simple word how much a system is user-friendly usability testing will be also included in our thesis work of a management system later on. Usability can be defined as ”The extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use.”

Usability is about: ” Effectiveness - can users complete tasks, achieve goals with the product, i.e. do what they want to do? ” Efficiency - how much effort do users require to do this? (Often measured in time) ” Satisfaction - what do users think about the products ease of use? Which are affected by: ” The users - who is using the product? e.g. are they highly trained and experienced users, or



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novices? ” Their goals - what are the users trying to do with the product - does it support what they want to do with it? ” The usage situation (or 'context of use') - where and how is the product being used? Usability should not be confused with 'functionality', however, as this is purely concerned with the functions and features of the product and has no bearing on whether users are able to use them or not. Increased functionality does not mean improved usability!

## Chapter 3

# Existing Management System of IUT

### 3.1 Existing Management System of IUT:

IUT is an International university authorized by OIC (Organization Of Islamic Conference) situated at Gazipur, 30 kilometers from the capital city Dhaka and only 8 kilometers from the Dhaka International Airport. It is a technological university having departments of Electrical and Electronics Engineering, Computer Science, Civil Engineering, Mechanical and Chemical Engineering providing BSc, MSc, Higher-Diploma to the students. There are almost more than 1200 students from thirty OIC member countries mostly from the host country Bangladesh are currently studying in this university. IUT has almost 150 teachers from four main discipline and about 100 staffs work in IUT in various sectors. The total area of IUT is only 30 acres but it has many functionalities to do every day for maintaining the overall process. Most of the management systems are done by the manual approach. The management system can be divided in IUT as The Hall management system, cafeteria management system, the admission system, result processing system, student-center management system, medical center management system, student information system and so on. This time we will just describe the existing system of cafeteria management system and the hall management system because this semester we work on these two.

### **3.2 Existing Hall Management System of IUT:**

As we have mentioned earlier that there are almost more than 1200 students currently studying in IUT and IUT has two dormitories for the students namely the south hall and the north hall. Each hall has the capacity of 600 students and each hall consists of five floors, twenty blocks, one hundred and fifty rooms. The chai-person or the manager of each hall are hall supers. There are no software system for the hall management all processed done area manually. There we mention some list of tasks that the existing system do: " Updating new student at the beginning of the academic year. " Deleting graduated students from the hall list. " Changing rooms or seats. " Regular cleaning and repairing the student's stuffs. " Providing security of each and every room when the students are not present. " Collect complain and the feedback from the student. These we have mentioned are the main responsibilities for a hall super. IUT recruited two hall super in its two hall. All system we mentioned in existing system are done by manually because there are no application for it. For updating the new students all new students are given to fill up a form about his personal and academic information and after filling they submit it to the hall super. The hall super then allocate the room from the list of vacant room he got earlier from the graduated student. Then he allocate the room to them. This process very time-consuming and the probability of errors are more. In case of deleting the system follows the manual process as well. After end of an academic year the hall super get the information of which rooms are empty then after cleaning and other formalities it is given to the new students. For cleaning and other home service there is a cleaning clerk for each block and the clerk wash the toilet everyday morning as his scheduled duty and he also clean each and every room twice in a week. In time of cleaning the clerk has a signature book to take the signature from any of a student of that room. This book later on is observed and signed by the hall super so that the cleaning of all rooms is been ensured. For security each room is provided a lock and a copy of the key is preserved in the room 114(Management room) for any kind of emergency. During the time of annual vacation of three month the all rooms are closed and locked and the authority sometimes check the room by the preserved key. There is a complain box in front of the room of the 114 and students can submit complains and comments in it.

### **3.3 Existing Cafeteria Management system of IUT:**

IUT have two cafeteria for the two halls. Cafeteria provides free foods to the student. Teachers and stuffs get food for monthly payment and the guests for using the coupon. IUT cafeteria provides scheduled and fixed meals three times a day and tea every afternoon. The duties of cafeteria are divided into four categories: 1. Cooking system 2. Cleaning 3. Food serving 4. Marketing According to the duties the clerks are divided into three categories and they serve in there section such as some person cook some clean the dishes and some serve the foods to the students and the teachers. The whole system is supervised by a supervisor who comes to the cafeteria everyday and get the feedback from the clients and try to implement it. Though there is an old model PC seen in the cafeteria but it has literally none of uses. There is no application based system, the whole process is maintained by totally manually. There are so many problems serving the food and distributing the duties to the clerks of the cafeteria. In each cafeteria everyday almost more than 600 students and 100 stuffs take their three times meal and teas in the afternoon. To maintain the huge system the process is not so much updated. The all records are written manually instead of having any digital system. One more thing should be noted that there is no checker for double-eating tendencies of the students and over estimation of food producing due to the home-going students. Home-going students should be informed before leaving but there is no system of it. The cafeterias are providing foods time to time to the iutians by of the clerks but clerks have so many complains about it. They are suggesting an updated management system for the cafeteria.

### **3.4 Why Existing Systems Should Be Changed:**

We have mentioned earlier that there are so many managements in IUT and the matter of concern that the maximum systems are manually handled and managed. The system currently using in the university is not helpful to the students and the stuffs as well and everyone is suggesting to change it. It is the demand of time that to digitalized the system. The existing systems have so many problems that's have to be solved. I have taken an overall interview when I was doing the system analysis part of this thesis work. Feedback we have got is not satisfactory. Everyone think that the systems should be changed and no doubt about it from any side. So our final year will focus on the central management system consists of some separate management systems into a

central database. Most of the management systems are done by the manual approach. The managements system can be divided in IUT as The Hall management system, cafeteria management system, the admission system, result processing system, student-center management system, medical center management system, student information system and so on. This time we will just describe the existing system of cafeteria management system and the hall management system because this semester we work on these two.

## Chapter 4

# Challenges and Opportunities

### 4.1 Challenges on web based management system of an university:

Helping plan and implement a Web-based project management system for one of my clients, a global construction company, presented a number of challenges.

One of the main challenges was developing a system that would allow the sharing of hundreds of thousands of documents among teams stationed around the world.

Following a comprehensive planning phase, we embarked on implementing the system. While the organization considers the new Web-based project management system a success, the project did have its difficulties along the way. As with any other project, there were pitfalls to avoid and a learning curve to follow. Here are some of the challenges we faced, along with advice on how you can avoid some of the same problems. The new Web-based system was in place, but the organization continued to employ the same project management processes. We needed to integrate the new tools into the existing project management strategy.

A consistent, integrated, systematic approach to Web-based project management would yield the best results because we should build processes around information, knowledge management, and collaboration. This would lead to major changes for most organizations, regardless of their core businesses. Your organization should take an accurate inventory to assess its current alignment, willingness, and readiness for a Web-based project management approach.

## **4.2 Internet user challenge and Opportunity :**

The internet has become the public space of the 21st century – the world’s town square, classroom, marketplace, coffeehouse, and nightclub. We all shape and are shaped by what happens there, all 2 billion of us and counting. And that presents a challenge. To maintain an internet that delivers the greatest possible benefits to the world, we need to have a serious conversation about the principles that will guide us, what rules exist and should not exist and why, what behaviors should be encouraged or discouraged and how. The goal is not to tell people how to use the internet any more than we ought to tell people how to use any public square, whether it’s Tahrir Square or Times Square. The value of these spaces derives from the variety of activities people can pursue in them, from holding a rally to selling their vegetables, to having a private conversation. These spaces provide an open platform, and so does the internet. It does not serve any particular agenda, and it never should. But if people around the world are going come together every day online and have a safe and productive experience, we need a shared vision to guide us. Internet freedom is about defending the space in which all these things occur so that it remains not just for the students here today, but your successors and all who come after you. This is one of the grand challenges of our time. We are engaged in a vigorous effort against those who we have always stood against, who wish to stifle and repress, to come forward with their version of reality and to accept none other. We enlist your help on behalf of this struggle. It’s a struggle for human rights, it’s a struggle for human freedom, and it’s a struggle for human dignity.

## **4.3 Creating a new platform of management system :**

To many people crating new platform of a system may be a huge challenge but we have taken it as a opportunity of doing something for our university. A few team members felt that the Web-based interface was not user-friendly. This problem was the result of ineffective testing of procedures from a user’s point of view. A few team members became frustrated with the interface and stopped using the whole system or decided to use only a small part of its functionality. To rectify this problem, we needed to have extensive user involvement in preparing the procedures and designing the interface.

#### **4.4 Individual Learning and Other Challenges:**

When we first select the goal of making all IUT management system we at first planned to make non web based management system. But our honorable supervisor suggested us to make a web-based management system for IUT. When we started we faced difficulties because we didn't have any web based course earlier so we had to learn some new languages. We started learning the PHP, HTML, CSS and so on. But that was not the main challenges the main challenge is that we are going to make a management system based on website. That was really a big gamble for us to select it. We firstly did the system analysis part of the management system and then we move on to make the structure of the web-site we have aimed to form. Web based management system really a big challenge because he previous systems of our university was not web based. We didn't get any idea from the other person worked on it. The Main problem we faced to set up a web structure for the whole management system.

#### **4.5 Challenges on making multi management system:**

For some team members using the new system, benefits appeared to be marginal. This effect was the result of a measurement problem. How did we measure benefits? The team needed to compare the old process with the new one. We had to devise a mechanism that measured the effectiveness of the new system in terms of resource usage, availability of reliable and timely information, and project controls. Some of the things we looked at included: " The ability to consolidate multiple project plans. " The average time a major, outstanding issue remained opened.

" The extent to which team members and project managers maintained their own separate schedules.

Many of the parties involved in the project did not have a clear definition of productivity. For example, for team members paid by the hour, reducing the number of hours required to do a job was not an attractive option unless there were balancing considerations, such as competitive pressures. Only the owners of the company were clearly motivated to do more with less. However, the owners were not the main users of the system.



## 4.6 Co-relating the systems:

Co-relating the system is to create a logical relationship between the systems and that from any of the system we can get partial or full idea of the other system. We can say the managements systems can be related to each other to help the functionalities of the other system. We believe that our success in the implementing co-relations between some Web-based project management systems is due to the following factors: ” The appropriate selection of technologies, tools, and techniques to support the analysis, design, development, implementation, and maintenance of the tool ” Senior management support and commitment to the tool ” Extensive training that focused on task completion ” The organization’s readiness, willingness, and ability to work in a Web-based project management environment, including assessing/adapting the organization’s people, technology, work environment and culture, systems, and processes

## Chapter 5

# System Analysis and Feasible Study

### 5.1 Feasibility Analysis:

Feasibility analysis means the process of analyzing the sustainability and intangibility of a given system with respect to technical, operational and economical perspective. Any system that is going to be developed must take these fields into accounts to ensure a successful project that will be able to reach towards purpose of its creation. Feasibility analysis can be termed differently:

”Our definition of feasibility goes much deeper than common usage of the term, because systems projects’ feasibility is assessed in three principle ways:

operationally, technically and economically.” System Analysis and

Design-Kendall and Kendal As the system requires very low processing power, the PCs that would be required by the Provost office should be low to mid range ones. Again as the system is going to be developed using PHP language which are being taught in our courses any expert programmer should not be required.

The program would be installed in the internal network of IUT. Again, the software would be supplied free of cost but this will not be an open source one. So the overall cost to implement this management systems should be minimized.

Another very important aspect of this system would be the people who are involved in keeping the file based system up and running may lose their jobs because the whole database maintenance would be done automatically by the computer. So the expense will be less.

The software will be developed using a user-friendly approach. So anyone with basic computer knowledge should be able to operate this. Again the software is not that vast. So mastering it will not be that much difficult for any of the user whether s/he is a student or authority. The software will be developed keeping the fact in mind that people from various walks of life are going to use this software.

## 5.2 Questionnaires:

To understand the current situation of some management system we arranged an interview with some person who are responsible for maintaining management system such as Mr. Md. Sujat Ali Sardar, Hall caretaker, North Hall of IUT, who enlightened us of the current management system for residence in the university. Through the interview we found out the lackings in this system and direction to develop a system worthy of maintain the sophisticated process of managing dormitory. The Questions asked were of two kinds: open ended and closed ended. They are listed below:

1. Are you satisfied with the current condition of Dormitory Management System which is a file-based system? Answer: Yes.
2. Is an automated dormitory management system going to help? Answer: Yes.
3. How do you rank the current situation of Dormitory Management System out of 10? Answer: 6 out of 10. Some open-ended questions are also asked to them those are:
  1. What is the procedure for a student to be allotted a room in the dormitory? Answer: At first we try to keep all the student of same department in the same block of either North hall or South hall. But it so happens that we cannot get this type of free block all the times. Then we try to maintain that all the students in a room are from same department. It is done because this will increase the interaction among the students and encourage sharing knowledge among each other.
  2. What is the procedure to allocate foreign students? Answer: The foreign students are allotted the same room with the students of same nationality. The students from third and fourth year are often mingled to maintain the balance. Bangladeshi students are not allotted in a room with foreign students.

3. Is the Water Supply And Electricity Management fall under the authority of the Dormitory Management? Answer:No, they fall under the authority of engineering department.

4.How does a complain submitted by a student responded? Answer:All the complains are eventually directed to the hall caretaker who has to go through the tedious task of managing and solving these day to day problems using the traditional file-based system. At first the student reports any specific problem to the hall caretaker who then records it in a record book. Moreover, the student has to fill in a complain form as part of the legal procedure of IUT to post his complain to the caretaker. After verification of the complain the hall caretaker passes it on to the Building engineer who studies the problem and assigns an electrician or carpenter as demanded by the specific complain to solve it. Though the task seems simple but in practice it is very time consuming and involves many other drawbacks.

5.What is the procedure for a student to change the room? Answer:If the requested room is free, we just bring out our record book and place the name of the student in his desired place. But if the room is already booked, only verbal requests can be offered to the student who occupies the place currently.

6. How do you keep track of the students currently staying at a room? Answer:We keep record book that can be skimmed through to find out which room houses which students.

7.What is the procedure to find out the condition of a room? Answer:We keep track of the complains submitted by the students through which we get the knowledge of the condition of a room and its current status.

### **5.3 Structured Analysis:**

The structured analysis is a tool that analyses a specified system and ultimately converts it into a computer program. The tools are graphic representation of a system that corresponds to the real world data and entity. Major structured analysis tools are data flow diagram, data dictionary, structured English, decision table, decision tree. We will try to analyse Dormitory Management System in light of these tools. We took of some steps to make the structured analysis of the system analysis portion:Data Flow Diagram:

Graphical representation of data flowing throughout a system can be obtained by Data Flow Diagram. The underlying logic of a system can be monitored by this tool. There are only four symbols with which a system analyst can represent complete system pictorially. They are: arrows, round-cornered rectangles, double squares and open ended rectangles.

Data Dictionary:

Data dictionary works as the main element to analyse a data oriented system. A system that is evolved around data can and should be analysed using data dictionary. The keywords mean different things depending upon the organization. Collection of all those keywords along with their corresponding meaning in a way to ensure proper analyse of a system is known as data dictionary.

Structured English: Structured logic and format based English language works together to ensure the processes and sub processes of a system. This tool is known as structured English. Structured English is based on structured logic and Simple English statements such as add, multiply move, and so on. It is an appropriate technique for analyzing the system when structured decisions are not complex.

Decision Table: In order to analyse cause and effect situation behind any process in system, we use Decision table. Decision table is a table of rows and columns, separated in four quadrants. Decision tables provide a way to examine, describe, and document decisions using a table. The decision table is used to describe four things: " Describe the conditions. " Identify possible decision alternatives. " Indicate actions should be performed. " Describe actions. Decision Tree: The decision tree is a graphic representation of a decision table. Decision trees are used when complex branching occurs in a structured decision process. Trees are so useful when it is essential to keep a string of decisions in a particular sequence. Although the decision tree derives its name from natural trees, most of the times, it is drawn putting the root at the left side.

## 5.4 E-R Diagram

## 5.5 Form Designing:

Designing forms are very important for an automated system. As the software is going to be interacted with a lot of people from different walks of life, the interface of it must present an interface that is easy to stroll around with strong security features. The forms that are designed have various purposes to serve but each of them has a definite job. Forms are here to be used to show some data or to acquire information from users. Forms: There are nine forms in the system to do the major part of the workload. The description of the forms is given below:

” Welcome Page ” New Student ” Available Rooms ” Complaint Details ” Login  
” Out-going Student ” Problem Submit

## Chapter 6

# Project Details

### 6.1 Project Details:

The name of our project is "The IUT Management System". The main goal of this project has set that to take the all management processes of Islamic University Of technology under a web based universal system. This system is a website that is globally accessible in the World Wide Web that any person can use it within their limited access fixed earlier. We are aimed to make at least four management systems within this year. This time we have just fully implemented one management and partially implemented another one. We fully implemented the Hall Management system and we partially implement the Cafeteria management system. Project details will be what we have in the management system. Before starting our project we have been watching the problem of the existing management system and the student complain for 3 three years of our student life in IUT. Many of teachers, students as well as stuffs have concern us about the problems and requirements regarding the present system. Basically in IUT the all systems are going on with the combination of the analog and the software system though the softwares have many difficulties and limitations that can be solved by a central management. We focus on a centralized system that has a unique or a centralized database and all systems can connect to it. The system will focus on the easy access and the manipulation of the user encertaining the hard security as well. Protected single center database with secured access to it make the system more reliable to the user as well as safe. As we have mentioned earlier that we in this semester just have implemented the hall management system and this management system have two main functionalites.: 1. Hall maintenance 2. Hall Registration Hall maintenance

section we have some attribute that is related to the complain by the students. A student can login by their individual ID and the password can get a text field to complain about any problem. Students can assign the cleaning time for his convenience. The admin or the caretaker can search the complains given by the students and can take necessary steps.

The admin have to log in by his ID and the password and authenticate himself. Hall registration is the process of allocating, delocating new students in the database. The care taker can search the vacant room by the department, hall name and academic year. He can also change the room and the seats of current student by update option. One more thing to add that in case of search we can use substring search also that for example we can find all students start with 09 by writing in the text field just 09. For another system the cafeteria management we for this semester just have made the required pages and link it to each other. The creation of the database is not been done yet.



## Chapter 7

# Implementation Details

### 7.1 Home Page:

When we start the project the home page will appear. The home page is consists of four management systems and among them two will work.

### 7.2 Hall management System:

The internet has become the public space of the 21st century – the world’s town square, classroom, marketplace, coffeehouse, and nightclub. We all shape and are shaped by what happens there, all 2 billion of us and counting. And that presents a challenge. To maintain an internet that delivers the greatest possible benefits to the world, we need to have a serious conversation about the principles that will guide us, what rules exist and should not exist and why, what behaviors should be encouraged or discouraged and how. The goal is not to tell people how to use the internet any more than we ought to tell people how to use any public square, whether it’s Tahrir Square or Times Square. The value of these spaces derives from the variety of activities people can pursue in them, from holding a rally to selling their vegetables, to having a private conversation. These spaces provide an open platform, and so does the internet. It does not serve any particular agenda, and it never should. But if people around the world are going come together every day online and have a safe and productive experience, we need a shared vision to guide us. Internet freedom is about defending the space in which all these things occur so that it remains not just for the students here today, but your successors and all who come after you. This is one of the grand

challenges of our time. We are engaged in a vigorous effort against those who we have always stood against, who wish to stifle and repress, to come forward with their version of reality and to accept none other. We enlist your help on behalf of this struggle. It's a struggle for human rights, it's a struggle for human freedom, and it's a struggle for human dignity.

### 7.2.1 Hall Maintenance:

When the hall maintenance is clicked after login of the following page will appear. The login form will have to come through a login form by the student or the admin:

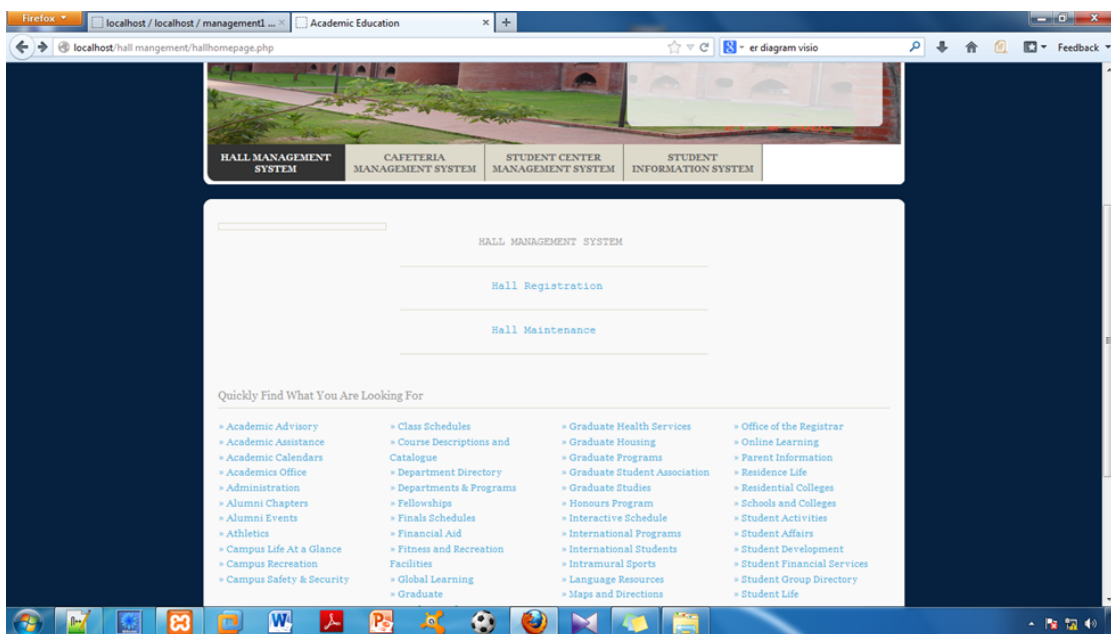


FIGURE 7.1: hall management home page

### 7.2.2 Hall Registration:

The hall reregistration form comes after the authentication by Id and the password checking in the login page. After the login page for the hall registration the options page will come and we can chose some operations by it.

### 7.2.3 Login for Admin:

The Admin login form are given below:

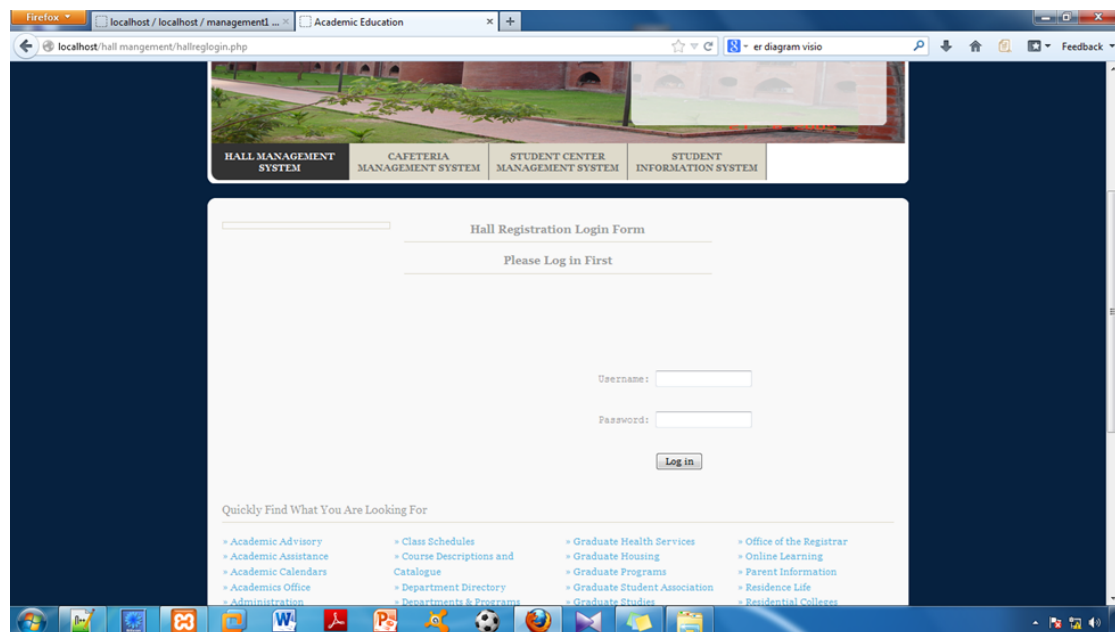


FIGURE 7.2: hall management login page

### 7.2.4 Login for Student:

The login form will come for the student only for the hall maintenance. After putting the right ID and the password the page will appear that has some text box to give inputs of their name, student id and year. Over there they can submit there complains within maximum 24 letters. The students can also search the complains by the search box. From the page there is a quick to go directly to the hme page also.

### 7.2.5 Registration options :

The registration form appears with some options the admin or the hall caretaker can use it likely the update, allocate, delocate and so on.

## 7.3 Cafeteria management System :

When the cafeteria management system is clicked it will show the overview and the design of the cafeteria and welcome to iut cafeteria will appear on the page. The home page is shown here:

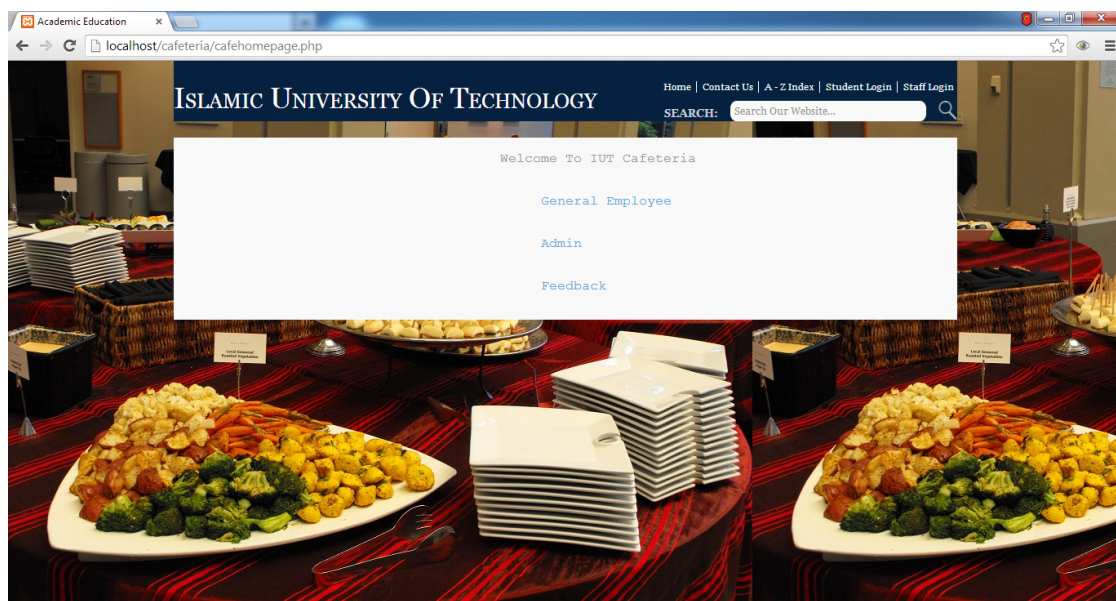


FIGURE 7.3: cafeteria management home page

### 7.3.1 Designing :

### 7.3.2 some snapshots of the the interfaces:

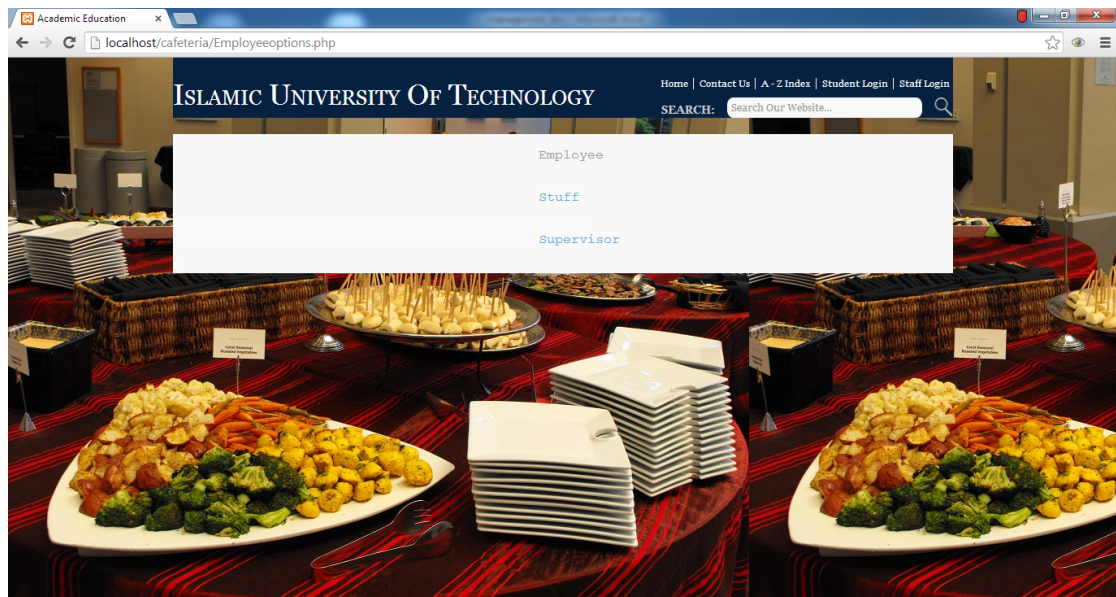


FIGURE 7.4: staff page

### **7.3.3 Logging for General employee:**

After click logging for general employee the employe page will shown two options the stuff and supervisors. If we choose the stuff two options will apeare on the page.food buying details and food serving details. For food buying details means food that staffs buy from out side i.e meat For food buying details there is a logging form for the stuff then they will enter and record the buying food from outside . Food serving details is the details that where the food have been served after prepared.when ever the stuff click food serving there will be logging form for user name and password.if the stuff but wrong user or password it will show wrog user or password after entering the write one the stuff can record the data and the details of food serving.

### **7.3.4 logging for Admin:**

After click the admin logging form of the admin after logging the form the admin can see.

### **7.3.5 The Feedback box:**

Feedback is an nformation about reactions to a quality of food or some thing like that. Any one can give a feedback then admin can check by logging and see what was the feedback. So feedback can be some thing talking about the quality of the food and so on.

## **7.4 Student Information Management System**

A student information system (SIS) is a software application for education establishments to manage student data. Also known as student information management system (SIMS).

### **7.4.1 Desing**

Three types of user thar the design shows us.the admin,the teacher and student.

## 7.4.2 sanapshots of interfaces

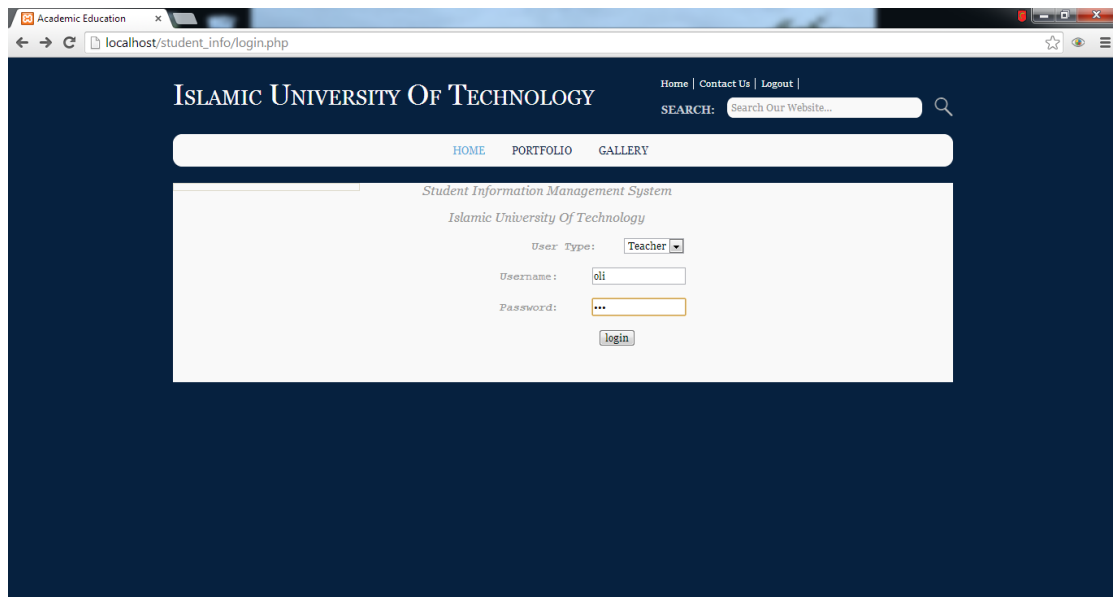


FIGURE 7.5: Student info management home page

### 7.4.3 logging for Admin

There are three types that the design shows Admin, Teacher, and Student. When we choose the Admin there will be a login form for user and password. After inserting the correct user and password and clicking login, we will see the Admin page. The Admin page consists of two options: the Students' Personal Info and the Students' Academic Info. For the Students' Personal Info, we will see the student's personal information, and for the Students' Academic Info, we can search by different options. For example, we can search by Search by Student Id: if we search by Id, then we will see the semesters CG and CGPA. Also, we can search by department and batch.

### 7.4.4 logging for Teacher

After choosing the teacher user type, then we have to insert the correct user and password, then login. After logging, there will be two options in the Teacher's course management, and they are Register for your course and your Courses' marks. For the register your course option, there is a course sign-up, and we will but session and course number to register. For the course marks, the teacher will update the

student's marks and after clicking update marks there is update result and teacher can update the students marka either by session,course or students Id: the after click teacher can se the students result.Quiz 1,2,3,4 midd exam,final exam and attendence then he will update.

#### **7.4.5 logging for student**

The third option for stufent management is ana student user type.after choosing the student then there is a logging form for the sudent after inserting the correct user and password and clicking logging then there is one option for the student result and it's see course by course result the student can see his result by three options eirther he can se by session,coure or sudent Id.



## Chapter 8

# Future Plan

The customer is preparing to use an upcoming major upgrade to the system on a few pilot projects. The new version is more flexible and customizable. The company is preparing to take advantage of the advancements in technology that took place during the last two years and is anticipating additional benefits, such as integrating its major suppliers and subcontractors to streamline bidding and procurement activities.

Implementing a Web-based project management system is not a silver bullet solution to issues associated with the project management process. It does not ensure adequate employee or client input, it will not automatically resolve issues such as ownership of resources, nor will it guarantee management support. An implementation of this size and scope requires a cultural change in the organization and is associated with many difficulties. This change requires extensive planning, management backing, availability of resources, and monitoring of performance. In other words, it requires all of the ingredients for completing a project on time, within budget, according to specifications, and meeting customer expectations.

As we have mentioned earlier that we have started a new platform of using the management system of IUT .We have just started our project by implementing the fully Hall management system and partially the cafeteria management system. Hopefully the next semester will at least two more projects of IUT that is not under web-based system. An another important thing this approach has started by us will be continued by the followers and our project will be open for our juniors. But for us we have decided more two management systems that are:

1. Student Centre Information System 2. Student's Information System 3. Medical Centre System(If possible) And more on we have an incomplete management system that is the cafeteria management system. We have a plan to implement barcode reader to the cafeteria management system to protect the doubleeating tendencies of the bad students. Our future plan also has proposed addition of some new features to the present system.

## Chapter 9

### Summery

Some management systems in IUT is totally manual. The data managing system is also not efficient. Though its traditional processes are established and have been used for a long time and even now, yet it requires a wind of change. This is essential as because in a world of rapid technological advancement we should not be the last to join the ranks. Now we want to implement those management systems for IUT which is based on database and fully automated.

## Chapter 10

# Reference

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