

1. Introduction

Online Admission System is aimed at developing an online admission application for a university. This system is an online system that can be accessed throughout the organization and outside as well with proper login provided. Our system has two types of accessing modes, administrator and user. Student management system is managed by an administrator. It is the job of the administrator to admit and monitor the whole process. When a user log in to the system, he would only view details of the student. He can't perform any changes .The system has two modules. They are:-

User

Administrator

Students logging is to apply for the course by filling an application form provided by online. Administrator logging in may also access/search information put up by the applicants.

2. SYSTEM ANALYSIS

System analysis aims at establishing requests for the system to be acquired, developed and installed. It involves studying and analyzing the ways of an organization currently processing the data to produce information. Analyzing the problem thoroughly forms the vital part of the system study. In system analysis, prevailing situation of problem is carefully examined by breaking them into sub problems. Problematic areas are identified and information is collected. Data gathering is essential to any analysis of requests. It is necessary that this analysis familiarizes the designer with objectives, activities and the function of the organization in which the system is to be implemented.

2.1 PROJECT IDENTIFICATION OF NEED

As the strength of the students is increasing at a tremendous speed, manual maintenance of student admission is very difficult. Hence, the need for online admission is inevitable. In case of manual system they need a lot of time, manpower etc. Here almost all work is computerized. So the accuracy is maintained. Maintaining backup is very easy. It can do with in a few minutes.

2.2 PRELIMINARY INVESTIGATION

2.2.1 STUDY OF EXISTING SYSTEM

Today in colleges student details are entered manually. The student details in separate records are tedious task. Referring to all these records and updating is needed. There is a chance for more manual errors.

1. When the student comes in college.
2. First of all, he/she takes admission form from reception.
3. Fills it and submits it into office.
4. Filled form is first checked with documents like merit list and details came from university and verified by an official person, if there is any mistake then it is corrected.
5. At the time of submission of it the fees is deposited by the candidate.
6. At the time of submission of admission form admission no. is assigned to the candidate by the institute.
7. Candidate gets the receipt of fees deposition.

Disadvantages of Present System:-

1. Require much man power i.e. much efforts, much cost and hard to operate and maintain.
2. Since, all the work is done in papers so it is very hard to locate a particular

student record when it is required.

2.2.2 PROPOSED SYSTEM

The main goal of the system is to automate the process carried out in the organization with improved performance and realize the vision of paperless admission. Some of the goals of the system are listed below:

Manage large number of student details.

Manage all details of student who registered for the course.

Create student accounts and maintain the data's effectively.

View all the details of the students.

Reduce the work load in interview the students for selection

Activities like updating, modification, deletion of records should be easier.

2.2.3 ADVANTAGES OF PROPOSED SYSTEM

The aim of the proposed system is to address the limitations of the current system. The requirements for the system have been gathered from the defects recorded in the past and also based on the feedback from user of previous metrics tools. Following are the objectives of the proposed system:

Reach to geographically scattered student:- One of the important objectives of the admission system is communicate with all the students scattered geographically.

Reducing time in activities:- Reduce the time taken process the applications of students, admitting a student, conducting the online examination, verify student marks, and send call letters to selected students.

Centralized data handling:- Transfer the data smoothly to all the departments involved and handle the data centralized way.

Paperless admission with reduced manpower:- Reduce the manpower needed to perform all admission and administration task by reducing the paper works needed.

Cost cutting:- Reduce the cost involved in the admission process.

Operational efficiency:- Improve the operational efficiency by improving the quality of the process.

3. FEASIBILITY STUDY

3.1 ECONOMIC FEASIBILITY

Economic analysis is most frequently used for evaluation of the effectiveness of the system. More commonly known as cost/benefit analysis the procedure is to determine the benefit and saving that are expected from a system and compare them with costs, decisions are made to design and implement the system.

This part of feasibility study gives the top management the economic justification for the new system. This is an important input to the management, because very often the top management does not like to get confounded by the various technicalities that bound to be associated with a project of this kind. A simple economic analysis that gives the actual comparison of costs and benefits is much more meaningful in such cases. It is economically feasible, it will only require a single operator to operate the system, who is responsible for entering the data into the database via a user interface provided to him, who can also be able to show all the data in html tabular form so to provide information regarding the students who are either taken admission or to take admission, since it requires only a single person to operate the whole system thus reduces the cost to operate the system.

In the system, the organization is most satisfied by economic feasibility. Because, if the organization implements this system, it need not require any additional hardware resources as well as it will be saving a lot of time.

3.2 TECHNICAL FEASIBILITY

Technical feasibility centers on the existing manual system of the test management process and to what extent it can support the system. According to feasibility analysis procedure the technical feasibility of the system is analyzed and the technical requirements such as software facilities, procedure, inputs are identified. It is also one of the important phases of the system development activities. It is technically feasible, since the whole system is designed into the latest technologies like PHP and SQL Server which are the most recent technologies to develop web based systems and design databases.

The system offers greater levels of user friendliness combined with greater processing speed. Therefore, the cost of maintenance can be reduced. Since, processing speed is very high and the work is reduced in the maintenance point of view management convinces that the project is operationally feasible.

3.3 OPERATIONAL FEASIBILITY

It is Operational feasible, since the system is providing an attractive user interface to the operator/end user, so he feels very easy to work onto it. Response to operator/end user is very fast and very good. Since, as we mentioned above that it requires much less amount of cost, it uses computer work so it is very fast to operate and it is very easy for user to work on it.

4.SOFTWARE AND HARDWARE REQUIREMENT SPECIFICATION

4.1 REQUIREMENT SPECIFICATION

The final output is the requirements specification document (SRS). For smaller problems or problems that can easily be comprehended; the specification activity might come after the entire analysis is complete. However, it is more likely that problem analysis and specification are done concurrently. All the information for specification activity follows the analysis activity. The transition from analysis to specification should also not be expected to be straightforward, even if some formal modeling is used during analysis. Essentially, what passes from requirements analysis activity to the specification activity is the knowledge acquired about the system. The modeling is essentially a tool to help obtain a thorough and complete knowledge about the proposed system.

4.1.1 ANALYSIS OF FACTUAL DATA

Analysis of data is a process of inspecting, cleaning, transforming, and modeling data with the goal of highlighting useful information, suggesting conclusions, and supporting decision making. Data analysis has multiple facets and approaches, encompassing diverse techniques under a variety of names, in different business, science, and social science domains.

Data mining is a particular data analysis technique that focuses on modeling and knowledge discovery for predictive rather than purely descriptive purposes.

4.1.2 IDENTIFICATION OF ESSENTIAL REQUIREMENT

Identification of essential requirement is an important task in developing the project. In this system the essential requirements are identified through surveying. By surveying, the important needs of the user in our website are known. In the surveying, the different possibilities of tour information that have to be included in the website is given by questionnaire.

4.1.3 SELECTION OF REQUIREMENT STRATEGIES

From the survey analysis graph it is clear that which are all the requirements that the user requires the most. It is decided to include the required information and omit the less priority ones.

4.2 DEFINITION OF INPUT REQUIREMENTS

4.2.1 REGISTRATION & LOGIN SYSTEM

Applicants will carry out their own registration, providing the system with a way to associate a user to their application(s). This will enable the system to display personalized information when the user logs in and certain information, such as name and address, to be added to each application automatically. Giving each student a specific ID will also allow a user to apply to a number of courses, while giving the system a way to prevent unnecessary duplication of applications. Requiring a registration process will also add greater security to the system, as once a user has logged in with their username and password, they will be the only person able to update their information and the only person to make applications on their behalf.

4.2.2 APPLICATION SYSTEM

The application process will be as straightforward as possible, using an intuitive form layout, with the necessary information being completed in stages. The system will monitor this and not allow a student to apply to a single course more than once, but will allow them to apply to multiple courses in the same college.

4.2.3 VIEW STATUS

When an application has been completed by a student, they will be able to log in to the system at any time and view its status.

4.2.4 UPDATE DETAILS

Applicants will also be able to update their application details. Forms, much like the ones used to register and initially apply, will be the means of inputting the new details and will contain the previous information as a starting point. The only time an application will be locked for editing will be when it has been submitted for admission process that is after date of last submission, after which point the application will no longer be accessible by the user.

4.3 DEFINITION OF PROCESSING REQUIREMENTS

The user interface for this system will have to be simple and clear. Most

importantly, the pages must be easy to read, easy to understand and accessible. The color scheme should be appropriate to provide familiarity with the university and there should be no contrast issues.

There are many functions the system can perform and these must be logically grouped or displayed in an intuitive order to allow the user to perform tasks quickly and efficiently, without getting lost in excessive amounts of text. The system must also display a large amount of information and to avoid confusion this must be displayed in categories or in different pages. Furthermore, a small amount of information may be displayed initially, for example with a certain limit on date or amount, and the ability to view more in depth information on the subject should be apparent.

The different information displays and functionality objects should be individually distinguishable, allowing the user to navigate through recognition, rather than recall. In addition, each function must provide the ability to cancel, leaving the user with the ability to rectify mistakes, and every page should include the ability to return to a central location of the system, ensuring that the user does not get lost within the system with no convenient way to navigate.

The system will provide different views for different users, allowing multiple access levels. For example, a student will only be able to see their own details and details of their applications, whereas an administrator will be able to view all users, applications and statistics and will have many more privileges. Being an online system, it will naturally be viewable from any computer with an internet connection, allowing admissions from home, for example. This will provide far more accessibility than if it were written in a language with only limited online capability as any computer is a potential work station, rather than relying on the program being installed.

4.4 DEFINITION OF OUTPUT REQUIREMENTS

The most important function is to make the short list of student who got admission under the circumstances made by the college.

In some cases, decisions about an application will be simple, given that the application might be exceptionally good or exceptionally bad. If, however, an application is similar to other, previous applications, the tutor may have a more difficult decision to make and inconsistencies may be introduced. Using the automatic ranking of applications a tutor will be able to see a list of applications with a similar ranking. This list will have a default length of 5, for example, but this will be extendible if more comparisons are needed, and the list will include

applications of the same rank as well as slightly higher and lower ranks.

4.5 OBJECTIVE OF SRS

The objective of this SRS document is to specify software requirements of the Online Admission for the university. It is intended to be a complete specification of what functionality the admission provides. The main purpose of the system is to automate the task carried out by different peoples in the organization to perform the student admission. Specific design and implementation details will be specified in a future document.

4.6 OVERVIEW OF SRS

SRS will include two sections.

Overall Description will describe major components of the system, interconnection and external inter faces.

Specific Requirements will describe the functions of actors, their role in the system and constraints.

4.6.1 OVERALL DESCRIPTION

The SRS document will give further details on the overall product description, including the hardware, software, and communications interfaces, product functions, user characteristics, and any assumptions that will be made.

4.6.2 SPECIFIC REQUIREMENTS

The SRS document will also include the specific requirements needed. These will include the functions, performance, design, and software attributes. This document is organized in a logical manner and is easy to follow. Readers should refer to the table of contents, appendices, or index if looking for something in specific. Otherwise, reading this document from start to finish will start with a vague description and get more specific and detailed as changing sections and reading further.

4.7 HARDWARE CONFIGURATION

- System : Multimedia PC
- Processor : Pentium 4 or above
- Memory :512MB RAM
- Hard Disk : 80GB or above
- Keyboard : 104 standards

- Monitor : SVGA
- Modem : Dial up/Broadband

4.8 SOFTWARE CONFIGURATION

- Front end : PHP,HTML
- Back end : MYSQL
- Host: Apache server
- Operating System: Windows ,LINUX,MAC

5. SYSTEM DESIGN

The system design develops the architectural detail required to build a system or product. As in the case of any systematic approach, this software too has undergone the best possible design phase fine tuning all efficiency, performance and accuracy levels. The first step in system designing is to determine how the output is to be produced and in what format. Samples of the output and input are also presented. In the second step, input data and master files are to be designed to meet requirement of the proposed output. The processing phases are handled through program construction and testing, including a list of the programs needed to meet the system's objectives and complete documentation.

5.1 DESIGN METHODOLOGY

System design is the solution to the creation of a new system. This phase is composed of several systems. This phase focuses on the detailed implementation of the feasible system. It emphasis is on translating design specifications to performance specification. System design has two phases of development logical and physical design.

During logical design phase the analyst describes inputs (sources), outputs (destinations), databases (data sores) and procedures (data flows) all in a format that meats the uses requirements. The analyst also specifies the user needs and at a level that virtually determines the information flow into and out of the system and the data resources. Here the logical design is done through data flow diagrams and database design.

The physical design is followed by physical design or coding. Physical design produces the working system by defining the design specifications, which tell the programmers exactly what the candidate system must do. The programmers write the necessary programs that accept input from the user, perform necessary processing on accepted data through call and produce the required report on a hard copy or display it on the screen.

5.1.1 LOGICAL DESIGN

Logical design of an information system shows the major features and also how they are related to one another. The first step of the system design is to design logical design elements. This is the most creative and challenging phase and important too. Design of proposed system produces the details of the

state how the system will meet the requirements identified during the system analysis that is, in the design phase we have to find how to solve the difficulties faced by the existing system. The logical design of the proposed system should include the details that contain how the solutions can be implemented. It also specifies how the database is to be built for storing and retrieving data, what kind of reports are to be created and what are the inputs to be given to the system. The logical design includes input design, output design, and database design and physical design

5.1. 2PHYSICAL DESIGN

The process of developing the program software is referred to as physical design. We have to design the process by identifying reports and the other outputs the system will produce. Coding the program for each module with its logic is performed in this step. Proper software specification is also done in this step.

5.1.3 MODULAR DESIGN

A software system is always divided into several sub systems that makes it easier for the development. A software system that is structured into several subsystems makes it easy for the development and testing. The different subsystems are known as the modules and the process of dividing an entire system into subsystems is known as modularization or decomposition.

A system cannot be decomposed into several subsystems in any way. There must some logical barrier, which facilitates the separation of each module. The separation must be simple but yet must be effective so that the development is not affected.

The system under consideration has been divided into several modules taking in consideration the above-mentioned criteria. The different modules are

1. User module
2. Administrator module

5.2 INPUT DESIGN

The input design is the link between the information system and the user. It comprises the developing specification and procedures for data preparation and those steps are necessary to put transaction data into a usable form for processing data entry. The activity of putting data into the computer for processing can be achieved by inspecting the computer to read data from a written or printed

document or it can occur by having people keying the data directly into the system. The design of input focuses on controlling the amount of input required, controlling errors, avoiding delay, avoiding extra steps and keeping the process simple.

The system needs the data regarding the asset items, depreciation rates, asset transfer, and physical verification for various validation, checking, calculation and report generation. The error raising method is also included in the software, which helps to raise error message while wrong entry of input is done. So in input design the following things are considered.

What data should be given as input?

How the data should be arranged or coded?

Methods for preparing input validations and steps to follow when error occur

The samples of screen layout are given in the appendix.

5.3 OUTPUT DESIGN

Computer output is the most important and direct information source to the user. Output design is a process that involves designing necessary outputs in the form of reports that should be given to the users according to the requirements. Efficient, intelligible output design should improve the system's relationship with the user and help in decision making. Since the reports are directing referred by the management for taking decisions and to draw conclusions they must be designed with almost care and the details in the reports must be simple, descriptive and clear to the user. So while designing output the following things are to be considered.

Determine what information to present

Arrange the presentation of information in an acceptable format

Decide how to distribute the output to intended receipts

Depending on the nature and future use of output required, they can be displayed on the monitor for immediate need and for obtaining the hardcopy. The options for the output reports are given in the appendix.

5.4 DATABASE DESIGN

The overall objective in the development of database technology has been to treat data as an organizational resource and as an integrated whole. DBMS allow data to be protected and organized separately from other resources. Database is an

integrated collection of data. The most significant form of data as seen by the programmers is data as stored on the direct access storage devices. This is the difference between logical and physical data.

Database files are the key source of information into the system. It is the process of designing database files, which are the key source of information to the system. The files should be properly designed and planned for collection, accumulation, editing and retrieving the required information.

The organization of data in database aims to achieve three major objectives: -

1. Data integration.
2. Data integrity.
3. Data independence.

The proposed system stores the information relevant for processing in the MYSQL SERVER database. This database contains tables, where each table corresponds to one particular type of information. Each piece of information in table is called a field or column. A table also contains records, which is a set of fields. All records in a table have the same set of fields with different information. There are primary key fields that uniquely identify a record in a table. There are also fields that contain primary key from another table called foreign keys.

5.4.2 TABLES

1. TABLE LOGIN

FIELDNAME	DATATYPE
Firstname	Varchar()
Lastname	Varchar()
Email	Varchar()
Username	Varchar()
Lastname	Varchar()
password	MD5()
dtime	Date()
regId	Varchar()

2. Table pdetails

FIELDNAME	DATATYPE
Sal	Varchar()
fullname	Varchar()
Age	Varchar()
Mstatus	Varchar()
gender	Varchar()
opt_cat	Varchar()
mname	Varchar()
fname	Varchar()
religion	Varchar()
address	Varchar()
state	Varchar()
pincode	Int
email	Varchar()
mobile	Varchar()

3. Table edudetails

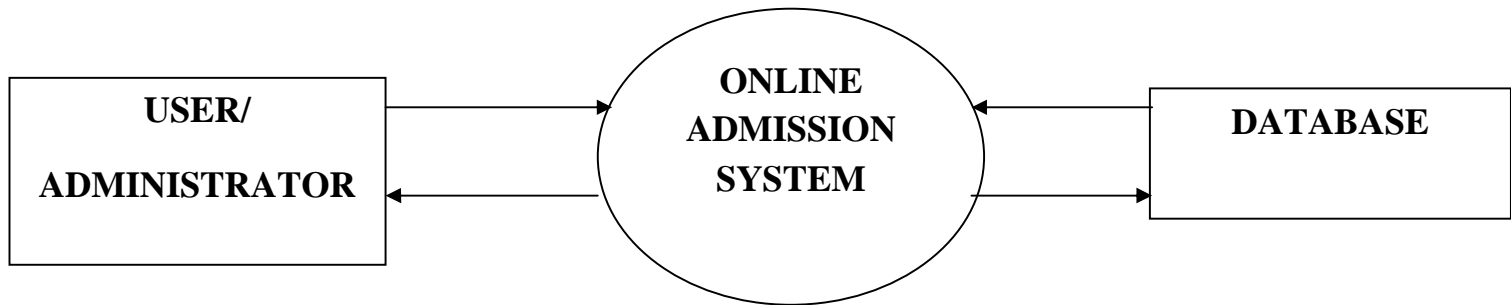
FIELDNAME	DATATYPE
grad_xam	Varchar()
Grad_stream	Varchar()
Grad_univ	Varchar()
Grad_yop	Int
Grad_marks	Int
Pgrad_xam	Varchar()
Pgrad_stream	Varchar()
Pgrad_univ	Varchar()
Pgrad_yop	Int
Pgrad_marks	Int
Othr_xam	Varchar()
Othr_stream	Varchar()
Othr_yop	Int
Othr_marks	Int
Course_applied	Varchar()

4. Table upload

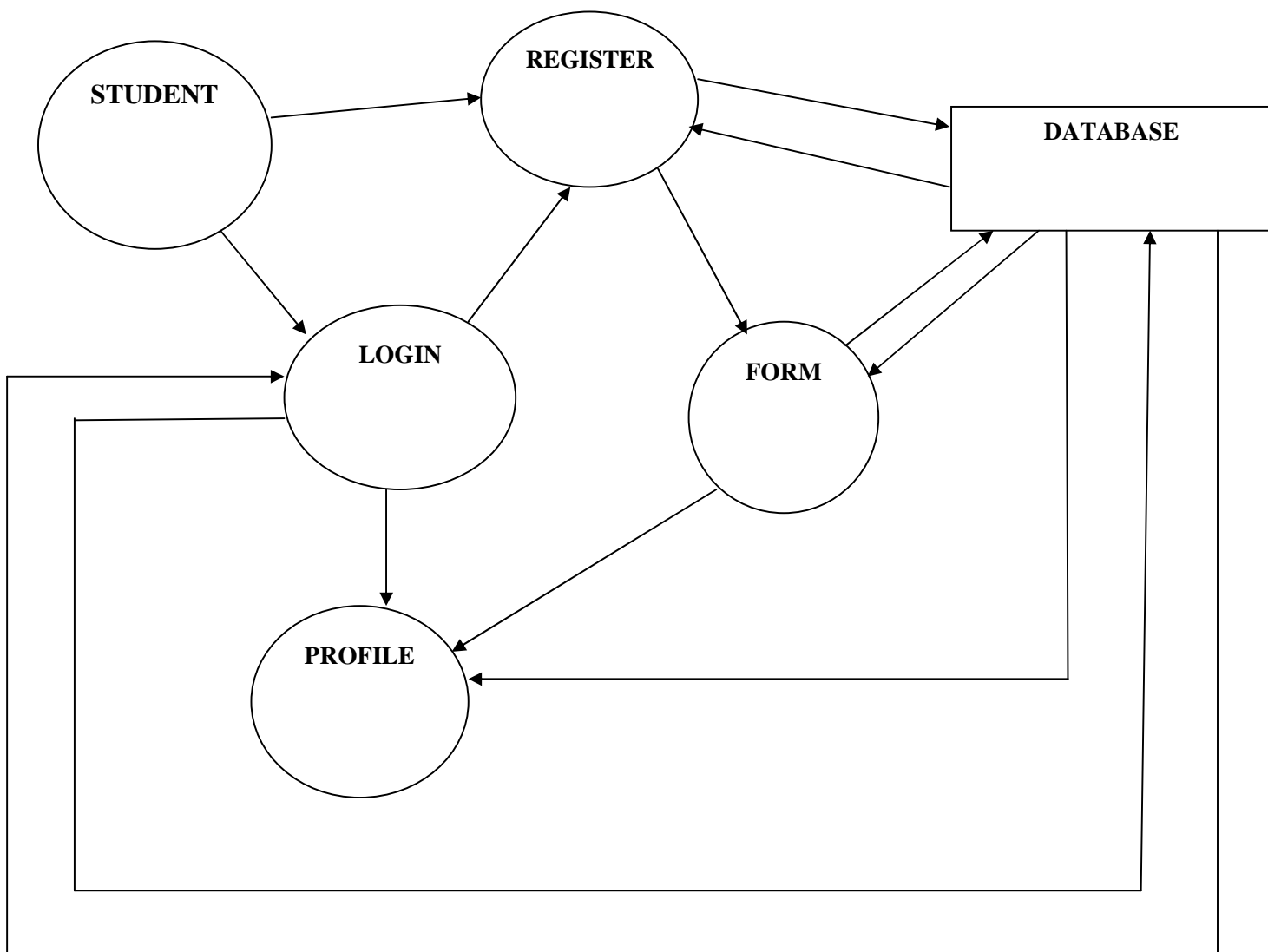
code	Varchar()
photo	Varchar()
sign	Varchar()
draft	Varchar()

5.4.3 DATAFLOW DIAGRAMS

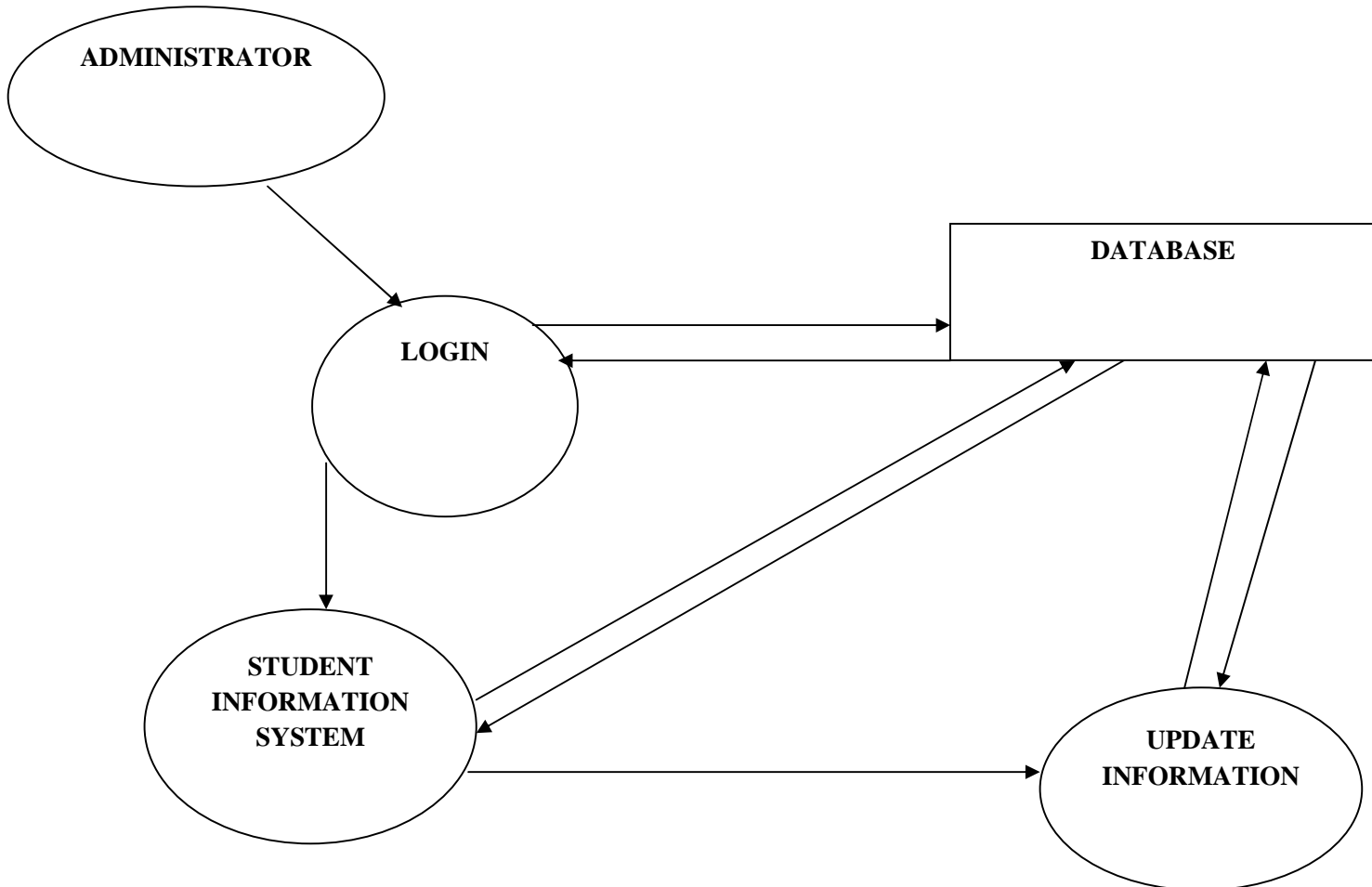
Level 0



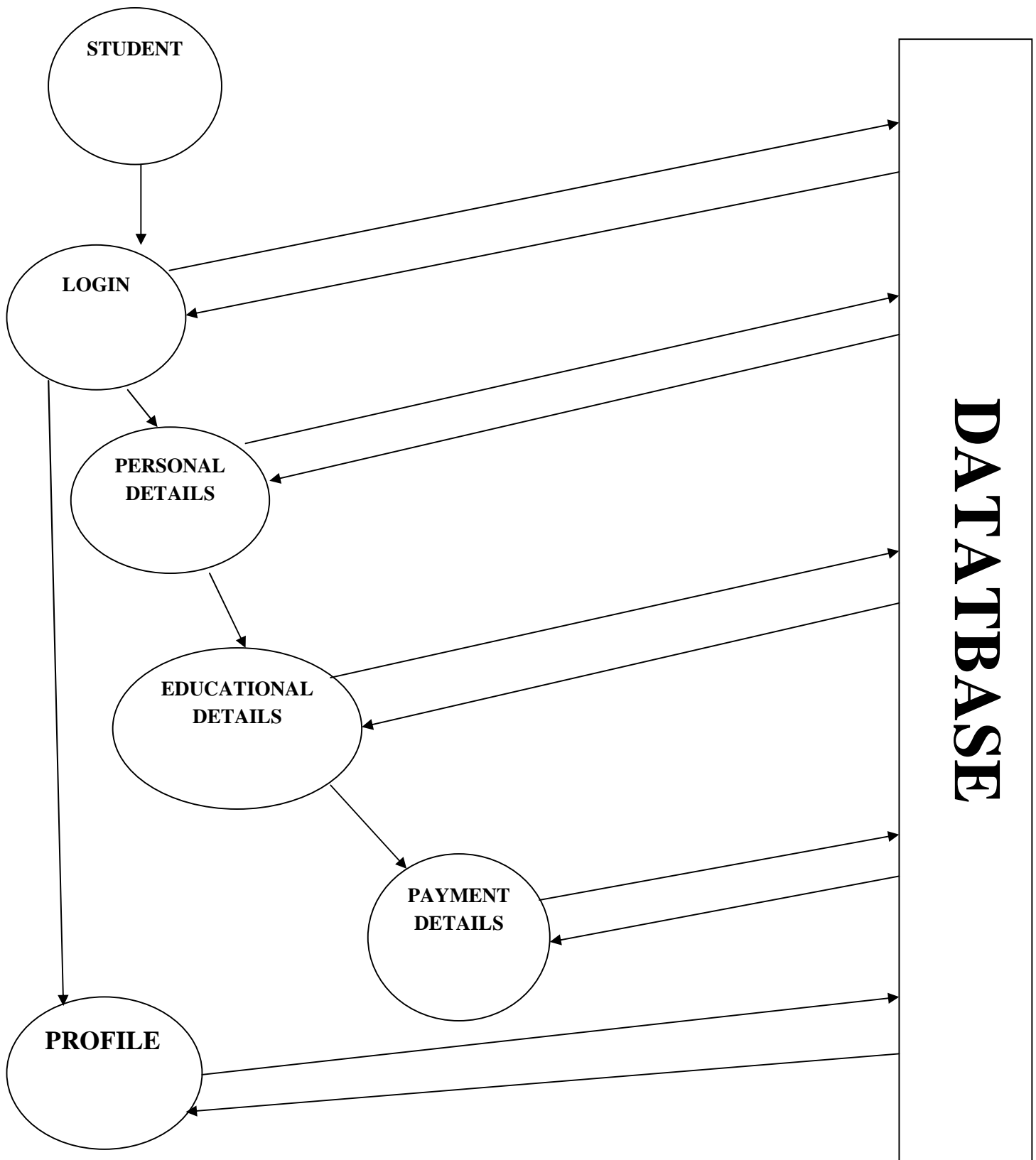
Level 1



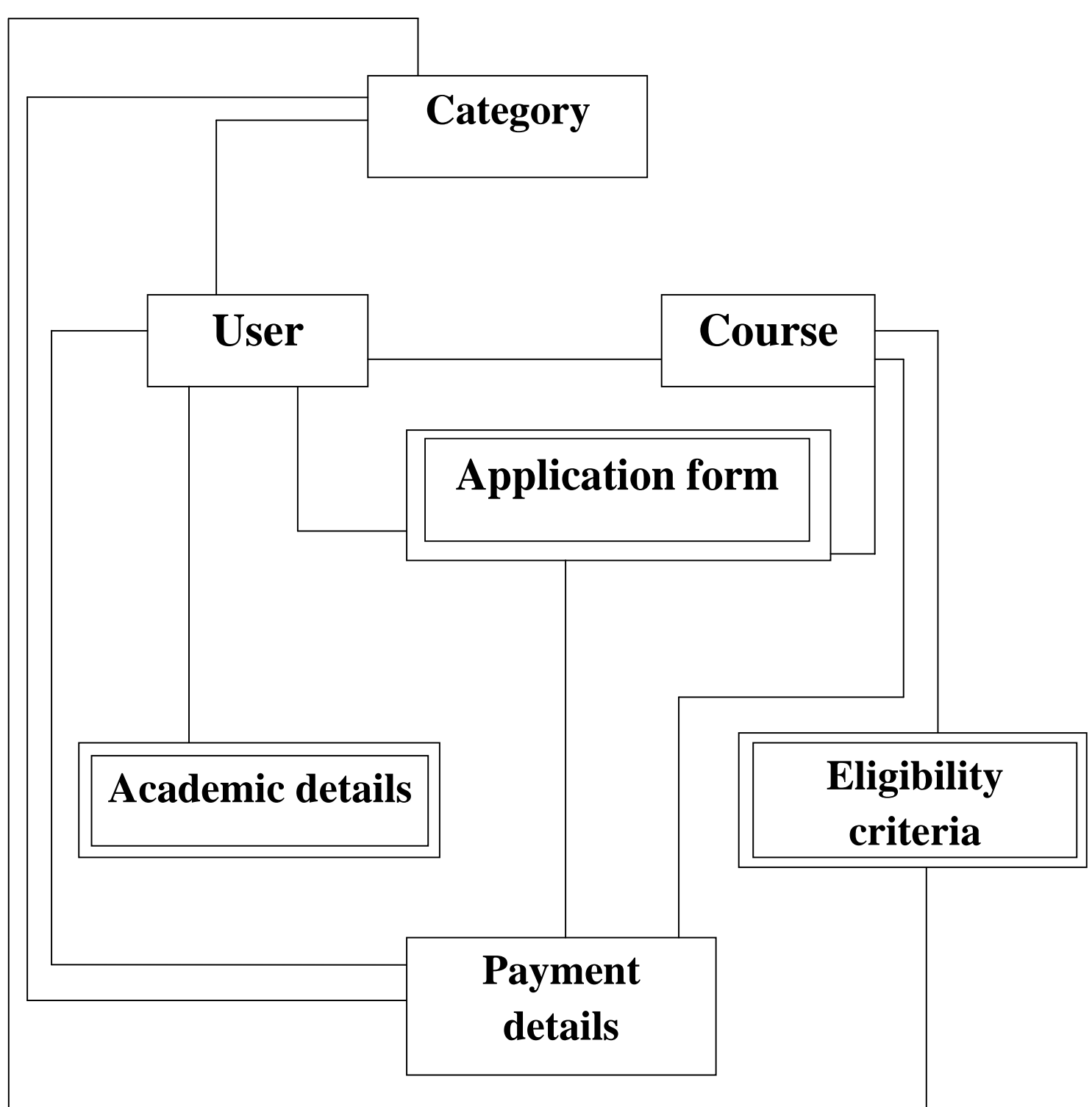
Level 2



Level 3



6. EE DIAGRAM



7. Validating the Database

User:-

Name	<u>Form_no.</u>	Category_id	Course_id	Draft_no.	Contact_no.	Father's_name	Sex	address	email
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Category:-

<u>Category_id</u>	Category_name	Application_form_no.	Draft_no.
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Course:-

<u>Course_id</u>	Course_name	Application_form_no.	Draft_no.
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Eligibility criteria:-

<u>Course_id</u>	Category_id	Application_form_no.
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Academic details:-

<u>Application_form_no.</u>	Name	Percentage	Exam_passed
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Payment details:-

Application_form_no.	<u>Draft_no.</u>	Course_id	Category_id	Payment_filled
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- Each color depicts a unique entity.
- The color of the corresponding attribute depicts the foreign key.
- Underline attributes are primary keys of each entity.
- Other attributes are represented by black color.

7. TECHNOLOGY SPECIFICATIONS

7.1 PHP (Hyper text Preprocessor)

PHP, which stands for “PHP: Hypertext Preprocessor” is a widely-used Open Source general-purpose scripting language that is especially suited for Web development and can be embedded into HTML. Its syntax draws upon C, Java, and Perl, and is easy to learn. The main goal of the language is to allow web developers to write dynamically generated web pages quickly, but you can do much more with PHP.

Security

PHP is a powerful language and the interpreter, whether included in a web server as a module or executed as a separate CGI binary, is able to access files, execute commands and open network connections on the server. These properties make anything run on a web server insecure by default. PHP is designed specifically to be a more secure language for writing CGI programs than Perl or C, and with correct selection of compile time and runtime configuration options, and proper coding practices, it can give you exactly the combination of freedom and security you need. As there are many different ways of utilizing PHP, there are many configuration options controlling its behavior. A large selection of options guarantees you can use PHP for a lot of purposes, but it also means there are combinations of these options and server configurations that result in an insecure setup.

The configuration flexibility of PHP is equally rivaled by the code flexibility. PHP can be used to build complete server applications, with all the power of a shell user, or it can be used for simple server-side includes with little risk in a tightly controlled environment. How you build that environment, and how secure it is, is largely up to the PHP developer.

Features

PHP manages freeing all resources. Users does not required to free file handle resource, database resources, memory, etc, unless programmer need to free resource during script execution. All resources are released after script execution PHP4 also have reference count feature. For example, memory for variables is shared when it assigned to other variable. If contents have been changed, PHP4 allocate new memory for it. Programmer does not have to

use pass by reference for large parameters for better performance with PHP4. It would be a nice section for new PHP users, if there is "Resource Handling" section or like. Explanation about reference count feature in PHP4 would be very helpful to write better PHP4 scripts also.

7.2 My SQL

My SQL query () sends a unique query (multiple queries are not supported) to the currently active database on the server that's associated with the specified *link_identifier*. The query string should not end with a semicolon. If the link identifier is not specified, the last link opened by My SQL connection is assumed. If no such link is found, it will try to create one as if `mysql_connect()` was called with no arguments. If by chance no connection is found or established, an E_WARNING level warning is generated.

7.3 OPTIMIZATION OF CODE

Code optimization aims at improving execution efficiency of a program. This is achieved in two ways:

- Redundancies in a program are eliminated.
- Computations in a program are rearranged or rewritten to make it execute efficiently.
- The optimization must not change the meaning of a program.

The Online Admission system μ optimizes the code by using the optimization techniques such as dead code elimination and frequency reduction. Thus improves the execution efficiency.

7.4 VALIDATION CHECKS

Validation means observing the behavior of the system. The verification and validation means that will ensure that the output of a phase is consistent with its input and that the output of the phase is consistent with the overall requirements of the system. The College Alumni's system performed validation by verifying the output of each phase. This is done to ensure that it is consistent with the required output. If not we apply certain mechanisms for repairing and thereby achieved the requirement.

8. SYSTEM SECURITY MEASURES

Any system developed should be secured and protected against possible hazards. Security measures are provided to prevent unauthorized access of the database at various levels. An uninterrupted power supply should be so that the power failure or voltage fluctuations will not erase the data in the files.

8.1 TECHNICAL SECURITY MEASURES

This is associated with technical problems such as exception conditions detected during execution. This exception should be programmed in the system itself. System errors are some operation during the execution may cause it to fail. This is because of logical programming error. So it is essential to handle these problems effectively.

8.2 INFRASTRUCTURAL SECURITY MEASURES

This is associated with computer failure, system crash, and disk failure. Physical problems and catastrophes refers to an endless list of problems that includes power air conditioning failure, fire, theft, damage, overwriting disk or tape by mistake.

8.3 ORGANIZATIONAL SECURITY MEASURES

Some problems occur in organization due to the concurrent execution of system. Prevention of labor turnover is another security measure related to the organization.

8.4 PERSONAL RELATED SECURITY MEASURE

This security is concerned with offering security to the persons who are developing and using the system. This is offered by providing username and password for each and every person using the system.

9. FUTURE SCOPE

The future scope of this project is very broad

Few of them are:

- This can be implemented in less time for proper admission process
- This can be accessed anytime anywhere, since it is a web application provided only an internet connection
- The user had not need to travel a long distance for the admission and his/her time is also saved as a result of this automated system

10. CONCLUSION

This system, being the first we have created in PHP, has proven more difficult than originally imagined. While it may sound simple to fill out a few forms and process the information, much more is involved in the selection of applicants than this. Every time progress was made and features were added, ideas for additional features or methods to improve the usability of the system made them apparent. Furthermore, adding one feature meant that another required feature was now possible and balancing completing these required features with the ideas for improvement as well as remembering everything that had to be done was a project in itself.

Debugging can sometimes be a relatively straight forward process, or rather finding out what you must debug can be. Since so many parts of the admissions system are integrated into one another, if an error occurs on one page, it may be a display error, for example; it may be the information is not correctly read from the database; or even that the information is not correctly stored in the database initially, and all three must be checked on each occasion. This slows down the process and can be frustrating if the apparent cause of a problem is not obvious at first. Language used must be simple and easy to understand and compatibility is paramount. If this system were not designed as an entirely web based application, it would not have been possible to recreate its current state of portability.

Overall, the system performs well, and while it does not include all of the features that may have been desired, it lives up to initial expectations. The majority of features that are included work flawlessly and the errors that do exist are minor or graphical.

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