

**A Project Report**

**On**

**“EDVISOR**”

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**Introduction**

Computers have become part an integral part of our lives for accessing almost any kind of information.Life in the 21ts century is full of technological advancement and in this technological age it is very difficult for any organisation to survive without utilizing technology.The computer technology contributes greatly to the creation of an ecer increasing information database.It could also be used as a mechanism to maintain information within an enterprise.

This is project develops a computerised system to help educational institutes to coordinate their activities and improve their functionality,and also for the management to track business growth and analyze future plans.

I have proposed a software project that can efficiently handle and manage various activities of an Educational Institute and all these activities will be carried out by the admin or the area manager of the Institute.The number of students who wish to study abroad are increasing tremendously as various courses are being introduced and in demand.Also,a huge number of students wish to study abroad.Hence we need to manage all the operations which take place at an educational institute,from students enquiring about a course to knowing which college and course suits best of their ability.Today’s generation encourages high-tech and less time consuming services.Therefore,the project is developed proficiently to help educational institutes automate their business operations.This project serves the best way of mainting records/information and caters the basic needs of an institute fruitfully.

This projetc includes a number of features intended to simplify and improve the institute management in a well organised manner.

**Existing System**

Some institutes can not afford to have a software to carry out all the operations and tasks.They have employees working manually for writing task.A written record is produced.If one has to search for a particular record or make changes,or modify the records, it is a very tiring job to go through each record manually.

The existing system is a manual system.All kinds of work is carried out manually by the employees of the organisation.Enquiry forms are already printed and issues to the students which demand for it.Here,if there are any technical problems like if the course or college is being deferred,it can not be immediately displayed on the form which is already printed,Hence, causing inconvenience.

To obtain an annual or monthly report, all the records need to be manually accessed one by one and also,they are not related properly as there is no existence of database.Hence,it is erroneous

**Introduction to the system**

The system covers all educational institutes in a country, but depending upon needs, it can integrate institutions of other countries as well. Any country has one or more colleges, and each college contains a number of courses. A form can be built and integrated in the system through a screen designer interface, managed through a stand alone interface.

The manager/administrator should use the system to add vital information such as name of a student,college name, duration of the course, etc.This information is added to the system depending on the ability of the an institute to put up the course according to the popularity of the course.

Then at the institute,when a student wishes to book a course ina college,the allots a course to the student.The student fills the form and then the manager allots course and college according to the academics.

Institute managers schedule courses sessions through an interface. Courses can be entered into and deleted from the system. Courses can also be edited. All this is done through the admin interface. If, for some reason a course or college must be cancelled or rescheduled, this is straight forward while there are no enquiries for the course.

The system provides functionality for an admin and manager to schedule future courses and colleges at his/her own institute, i.e., entering courses and colleges into the database.Thus the system has 2 users: Admin and the Manager (persons who use the system for enquiries)

**Scope of the system**

‘**Course Advisor System**' is a system designed for **the** use **of** educationalinstitutes to generate enquiries for students who wish to study. The application is designed for quick, simple and hassle-free generation of enquiries. The primary motive of the system is to keep the process minimalist, faster and efficient. The software is also capable of generating reports related to the enquiry and monthly and yearly reports generation to check the number of students who visited the Institute for enquiry.

**Proposed System**

A simple solution to overcome the drawbacks of the existing system is to build a system that can convert the entire manual task into computerised work.The proposed system will be able to the same task in short time and very efficiently.

The features of the proposed system are as follows:

* The system is used to add details of students who visit the institute.
* It stores the names of all the students which have already registered .
* The system also stores names of courses and colleges.
* It also provides data security by providing authentication for the user of the system.
* All the records can be accessed by the administrator.The administator has the right to modify any records if required.
* Better control of corporate data through centralised data,systems and network management.

**Need for the proposed system**

The data of all the students,courses and colleges is stored in a hand written register.Therefore if the admin is looking for certain record like,for instance ‘how many students visited the institute at the end of 3 months?’,the admin will have to go through many pages of the register manually and search for all the records related only to those months which is a very tedious and time consuming job.The admin has to search data in various documents which is related to the report required as a database is not available and no relationship is maintained between the data.It is very difficult to combine all the information from various resources.With the help of ‘Course Advisor System’ ,the admin can maintain all the records easily and also can search,update or modify any record from the entire database efficiently.The admin can also generate monthly or annual reports(as desired by an institute) as all the information is stored in a database and also there is a relationship maintained between the data. An erroneous and inaccurate data collection can be avoided by automation of the tasks at the institute.

**System Analysis**

Systems analysis is a problem solving technique that decomposes a system into its component pieces for the purpose of the studying how well those component parts work and interact to accomplish their purpose". According to the Merriam-Webster dictionary, systems analysis is "the process of studying a procedure or business in order to identify its goals and purposes and create systems and procedures that will achieve them in an efficient way". Analysis and synthesis, as scientific methods, always go hand in hand; they complement one another. Every synthesis is built upon the results of a preceding analysis, and every analysis requires a subsequent synthesis in order to verify and correct its results.

This field is closely related to [requirements analysis](https://en.wikipedia.org/wiki/Requirement_analysis) or [operations research](https://en.wikipedia.org/wiki/Operations_research). It is also "an explicit formal inquiry carried out to help someone (referred to as the decision maker) identify a better course of action and make a better decision than she might otherwise have made."

### Fact Finding Techniques

# To study any system the analyst needs to collect facts and all relevant information. The facts when expressed in quantitative form are termed as data. The success of any project is dependent upon the accuracy of available data. Accurate information can be collected with help of certain methods/ techniques. These specific methods for finding information of the system are termed as fact finding techniques. Interview, Questionnaire, Record View and Observations are the different fact finding techniques used by the analyst. The analyst may use more than one technique for investigation.

# Following are the most commonly used fact finding techniques:

# Interview This method is used to collect the information from groups or individuals. Analyst selects the people who are related with the system for the interview such as the adminnistator of the cineam an institute, owner, other staff,etc. In this method the analyst sits face to face with the people and records their responses. The interviewer must plan in advance the type of questions he/ she is going to ask and should be ready to answer any type of question. He should also choose a suitable place and time which will be comfortable for the respondent. The information collected is quite accurate and reliable as the interviewer can clear and cross check the doubts there itself. This method also helps gap the areas of misunderstandings and help to discuss about the future problems. Structured and unstructured are the two sub categories of Interview. Structured interview is more formal interview where fixed questions are asked and specific information is collected whereas unstructured interview is more or less like a casual conversation where in-depth areas topics are covered and other information apart from the topic may also be obtained.

# Questionnaire It is the technique used to extract information from number of people. This method can be adopted and used only by any skillful analyst. The Questionnaire consists of series of questions framed together in logical manner. The questions are simple, clear and to the point. This method is very useful for attaining information from people who are concerned with the woking of the cinema an institute and also who are related to the cinema an institute i.e the owner, directors,managers,etc. The questionnaire can be mailed or sent to people by post. This is the cheapest source of fact finding.

# Record View The information related to the cinema an institute is published in the sources like newspapers, magazines, journals, documents etc. This record review helps the analyst to get valuable information about the cinema an institute and it’s organization.

# Observation Unlike the other fact finding techniques, in this method the analyst himself visits the cinema an institute and observes and understand the flow of documents, working of the existing system, the users of the system etc. For this method to be adopted it takes an analyst to perform this job as he knows which points should be noticed and highlighted. The analyst may observe the unwanted things as well and develop the software accordingly.

**Feasibilty Study**

A feasibility study aims to objectively and rationally uncover the strengths and weaknesses of an existing business or proposed venture, opportunities and threats present in the [environment](https://en.wikipedia.org/wiki/Natural_environment), the [resources](https://en.wikipedia.org/wiki/Resources) required to carry through, and ultimately the prospects for success. In its simplest terms, the two criteria to judge feasibility are [cost](https://en.wikipedia.org/wiki/Cost) required and [value](https://en.wikipedia.org/wiki/Value_%28economics%29) to be attained.

A well-designed feasibility study should provide a historical background of the business or project, a description of the [product](https://en.wikipedia.org/wiki/Product_%28business%29) or [service](https://en.wikipedia.org/wiki/Service_%28economics%29), accounting statements, details of the [operations](https://en.wikipedia.org/wiki/Business_operations) and [management](https://en.wikipedia.org/wiki/Management), [marketing research](https://en.wikipedia.org/wiki/Marketing_research) and policies, financial data, legal requirements and tax obligations. Generally, feasibility studies precede technical development and [project](https://en.wikipedia.org/wiki/Project) implementation.

A feasibility study evaluates the project's potential for success; therefore, perceived objectivity is an important factor in the credibility of the study for potential investors and lending institutions.It must therefore be conducted with an objective, unbiased approach to provide information upon which decisions can be based.

The acronym [**TELOS**](https://en.wikipedia.org/wiki/TELOS_%28project_management%29) refers to the five areas of feasibility - Technical, Economic, Legal, Operational, and Scheduling.

### Technical feasibility

This assessment is based on an outline design of system requirements, to determine whether the institute has the technical expertise to handle completion of the project. When writing a feasibility report, the following should be taken to consideration:

* A brief description of the business to assess more possible factors which could affect the study
* The part of the business being examined
* The human and economic factor
* The possible solutions to the problem

At this level, the concern is whether the proposal is both *technically* and [*legally*](https://en.wikipedia.org/wiki/Legally) feasible (assuming moderate cost).

The [technical feasibility](https://en.wikipedia.org/wiki/Technical_feasibility) assessment is focused on gaining an understanding of the present technical resources of the organization and their applicability to the expected needs of the proposed system. It is an evaluation of the hardware and software and how it meets the need of the proposed system

### Economic feasibility

The purpose of the economic feasibility assessment is to determine the positive economic benefits to the organization that the proposed system will provide. It includes quantification and identification of all the benefits expected. This assessment typically involves a cost/ benefits analysis.

### Legal feasibility

Determines whether the proposed system conflicts with legal requirements, e.g. a data processing system must comply with the local data protection regulations.

### Operational feasibility

Operational feasibility is a measure of how well a proposed system solves the problems, and takes advantage of the opportunities identified during scope definition and how it satisfies the requirements identified in the requirements analysis phase of system development.

The operational feasibility assessment focuses on the degree to which the proposed development projects fits in with the existing business environment and objectives with regard to development schedule, delivery date, [corporate culture](https://en.wikipedia.org/wiki/Corporate_culture), and existing business processes.

To ensure success, desired operational outcomes must be imparted during design and development. These include such design-dependent parameters such as reliability, maintainability, supportability, usability, producibility, disposability, sustainability, affordability and others. These parameters are required to be considered at the early stages of design if desired operational behaviors are to be realized. A system design and development requires appropriate and timely application of engineering and management efforts to meet the previously mentioned parameters. A system may serve its intended purpose most effectively when its technical and operating characteristics are engineered into the design. Therefore, operational feasibility is a critical aspect of systems engineering that needs to be an integral part of the early design phases.[6

### Schedule feasibility

A project will fail if it takes too long to be completed before it is useful. Typically this means estimating how long the system will take to develop, and if it can be completed in a given time period using some methods like payback period. Schedule feasibility is a measure of how reasonable the project timetable is. Given our technical expertise, are the project deadlines reasonable? Some projects are initiated with specific deadlines. It is necessary to determine whether the deadlines are mandatory or desirable.

## Other feasibility factors are:

### Resource feasibility

This involves questions such as how much time is available to build the new system, when it can be built, whether it interferes with normal business operations, type and amount of resources required, dependencies, and developmental procedures with company revenue prospectus.

**Hardware & Software Requirements**

* **Hardware Specification**

Processor : Intel Dual based System

Processor Speed : 1GHz to 2GHz

RAM : 512MB to 1GB

Hard Disk : 4GB to 30GB

* **Software Specification**

Language : Java (NetBeans)

Database : Microsoft Access 2003/7/10

Operating System : Windows NT / XP / Vista / 7 / 8 / 8.1 / 10

* **Network Specification.**

This software work stand alone system as well as network based system.

**Project Monitoring System**

We have implemented the following **validations** at various points in the system so as to avoid erroneous input:

* Only authorised personnels such as the admin,the manager or the owner of the an institute have the access to the system.Hence,the information is confidential and can not be tampered or altered.The admin has the authority to add new courses and colleges to the database,no of courses available,countries and various other information desired by the system.
* The various fields provided in the system can not be left empty and have to be filled with the desired information. Proper values must be inserted in every field. There cannot be numbers in a field called ‘name of the student, etc
* When the student is entering email id, he/she has to follow the standard format.

**Design objectives**

The primary objective of the design is to deliver the requirements as specified in the feasibility report. These are the some of the objectives, which we have considered:

* **Practicality**: The system is quite stable and can be operated by the people with average intelligence.
* **Efficiency**: I tried to involve accuracy, timeliness and comprehensiveness of the system output.
* **Cost**: It is desirable to aim for the system with a minimum cost subject to the condition that it must satisfy the entire requirement.
* **Flexibility**: I have tried that the system should be modifiable depending on the changing needs of the user. Such modifications should entail extensive reconstructing or recreation of software. It should also be portable to different computer systems.
* **Security**: This is very important aspect which I followed in this designing phase and tried to covers the areas of hardware reliability, fallback procedures, and physical security of data.

**Data Dictionary**

The overall objective in the development of the database technology has been to treat data as an organizational resource and as an integrated whole. Database management system allows data to be protected and organize separately from other resources. Database is an integrated collection of data. The most significant of data as seen by the programs and data as stored on the direct storage access storage devices. This is the difference between logical and physical data. The organization of data in the database aims to achieve free major objectives:

## Data Integration

## Data Integrity

## Data Independence

## The databases are implemented using a DBMS package. Each particular DBMS has unique characteristics and general techniques for Database Design.

The proposed Management Information System stores the information relevant for processing in the Microsoft SQL Server Database. This MS SQL Server contains tables, where each table is called a field or column. A table also contains records which is a set of fields. All records, in a table the same set of fields with different information. Each table contains key fields that establish relationships in a MS SQL server database and how the records are stored. There are primary key fields that uniquely identify a record in a table. There are also fields that contain the primary key from another table called foreign keys.

It is a known fact that the program cannot be written until the data are defined, so the database must be defined. The starting point for this process is data dictionary. The records data structures and elements to be stored in each database are identified and extracted.

*The tables included are:*

**Table name : user**

int id

string name

string email

string username

string password

int phone\_number

string address

**Table name : college**

int cid

string college\_name

string college\_country

string college\_state

string college\_city

int detail

**Table name : course**

int id

string course\_rname

string course\_level

string course\_stream

string course\_description

**Table name : university**

Int id

string university\_name

string university\_code

string university\_country

|  |
| --- |
| **Table name: enquiries** |
| Int id |
| Date date |

**Cardinality:**

1 users- M courses

M courses-M colleges

1 admin - M enquiries

**Advantages and Disadvantages**

**Advantages**

Following are the advantages:

1. The system has a user-friendly user interface.
2. Reports are generated for future reference.Hence, business analysis can be done.
3. Cost and time saving, legal compliance and on top of all you stay updated on the latest technology tools of ticket booking system.

**Disadvantages**

Following are the disadvantages:

1. Risk of the employee feeding wrong information
2. As it is purely machine dependent, if any technical problem occur in machine, all the records can be lost, if the manager doesn’t kept a backup with him.

**Future Enhancements**

* **User Requirements**

1. Administrator should be able to navigate the system without any difficulty.
2. System supports native language of the country and other commonly spoken languages.
3. Administrator should be able to make enquiries online.

* **User Interface Requirements**

1. The system must be a graphical user interface for easy use and understanding.
2. The system must be able to prompt the user for the next step to be performed during the process of using the system.
3. The system must display the bill and final order for confirmation

**B**ibliography

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**Entity Relationship Diagram**

Does

Admin

Enquiry

University

Course

College

User