# Testing

Testing is the process of exercising or evaluating a system or system component by manual or automated means to verify that it satisfies the specified requirements. Normally, most of the testing and debugging is done after the system has been implemented. A large percentage of errors are discovered during testing originates in the requirement and design phase. The techniques that have been proposed for unit testing include the following:

1. **Path testing**: Each possible path from input to output is traversed once.
2. **Branch testing**: Each path must be traversed at least once.
3. **Functional testing**: Each, functional decomposition is tested at least once.
4. **Special value testing**: Testing for all values assumed to cause problems.

All the modules that have been developed before and tested individually are put together (integrated) in this phase and tested as a whole system. After doing this in the project will be almost ready to be delivered.

# Cost and Benefit

**System cost can be sub-divided into the following categories:**

1. Development Cost  
 2. Operating Cost  
 3. Intangible Cost

## **Development Cost**

* The Salaries of the system analyst and the computer programmer who designed the entire computerized system.
* Cost of commenting and preparing data files and preparing system manuals and other supportive documents.
* Cost of preparing new or expanded computer facilities.
* Cost of testing and documenting the system, Training employees and other standard cost.
* Cost of stationary, system maintenances etc.

## **Operating Cost**

* Cost of Hardware/Software, Rental or Depreciation cost.
* The salaries of the technical person such as computer operator,
* Other data processing personnel who will operate the new system.
* The salaries of system analyst and computer programmers who will perform the system maintenance function.
* The cost of input data preparation and control.
* Cost of data processing suppliers.
* Cost of maintaining the proper physical facilities, including power, air- conditioning, appropriate furniture, power backup facilities etc.
* Overhead Charges of the business firms.
* Cost of storing the data in machine code form.
* Launching cost like staff training, file communication and system training.

## **Intangible cost**

* The development of the system may disrupt the activities of an organization and cause a loss of employee productivity.
* Comparativeness with the other firm with respect to the productivity due to computerization.
* Customer sales and goodwill may be lost by error made during the installation of new system.

**Benefits**

The benefits which results from developing new or improved information systems that utilizes the resources can be subdivided as follows:

**1. Tangible Benefits.**

**2. Intangible Benefits**

# **Tangible Benefits**

Tangible Benefits are those benefits that can be accurately measured and are directly related to the introduction of a new system such as decrease in the data processing cost.

# **Intangible Benefits**

Intangible Benefits are more difficult to estimate and justify usually requiring the skill of the particular management concern, the cost of input data preparation and control.

Benefits that can results from the development of the computerized system are summarized below.

* Increase in sales and profits.
* Decrease in data processing costs.
* Decrease in operating costs.
* Decrease in required investments.
* Increase operational ability and efficiency.
* New and improved information availability.
* Improved abilities in computation and analysis.
* Reduction in employees such as clerical aspects.
* Elimination of some specific costs, e.g., postage, stationary, office machinery, etc.
* Reduction in cost and effort due to improved procedures such as data capture and avoiding the data validation.

# Future Scope of the Project

Normally a Banking Organization covers different area of business. However this project College Data MANAGMENT SYSTEM only covers the implementation of the student, college’s records and their various activities. The data accumulated in this project is used periodically to provide different types of managerial information.

The future applications of this College Data MANAGEMENT SYSTEM are:

1. This overall project is basically written in function and can be used in conjunction with other program, for future development for this system.
2. We have provided many data function through which any one can know about any STUDENT/TEACHER giving COLLEGE/TEACHER First name.
3. The project is using the modern trend OOPs that gives a better design to the software, which help in maintaining code in terms of reusability, modifiability, etc. These attributes a quit wanting in today’s complex software scenario. OOPs giving a better designs objective taken this problem and provide better design objective.
4. This software is design with OOPs so we choose C++ language, which provide all features which will be needed in future. This software is having sounding economic aspect with the motion of controlling the local market.
5. Cost of our project is comparatively low.

After using College Data MANAGMENT SYSTEM the user will findthat in the package provided to them has some of the facilities are slightly different than any other packages. This project omits something or adds some additional minor details as and when required by the user**.**