



## Attendance Management System

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**Abstract:** The system is designed to help the admin of the department to monitor the students of their regularity in the class with their attendance report of the class. The system tracks the student with respect to the data given by the staff pertaining presence for their class conducted, depending on which the system evaluates the performance of a student in conducting the theory classes. It provides facilities to maintain the student reports obtained for every class. This project is going to help us to reduce the traditional paper-based data maintenance and verification/validation. This system will benefit for both the admin and the staff. The system will help the staff to know the percentages of attendance and also track the records of previous years.

**Keywords:** Attendance, Data, Student, Class, System

### I. INTRODUCTION

Student Class Attendance Management System is a web based application developed for managing student's attendance details using relational database. It facilitates to access the attendance information of a particular student in a particular class. The information is sorted by the operators, which will be provided by the teacher for a particular class. Main objective of this software is to provide software solution to colleges for managing student's attendance details in database. The purpose of developing this project is to update student attendance weekly/monthly. Comparing with existing system this method will help management team to easily analyze student's attendance details for weekly and monthly basis. In this the teachers engaging different classes are required to submit the attendance of the students present in their class regularly. The information is sorted by the operators, which will be provided by the staff member for a particular class. This system will also help in evaluating attendance eligibility criteria of a student. The purpose of developing Mechanical Department Student Class Attendance System is to computerize the tradition way of taking attendance. Another purpose for developing this software is to generate the reports automatically at the end of the session or intermediate of the session. The scope of the project is the system on which the software is installed on LAN based connection, i.e. the project is developed as a web application and it will work for only for given department in our college. But later on the project can be modified to operate it online

System design is the process of defining the architecture, components, modules, interfaces, and data for a system to satisfy satisfied requirements.

The design phase can be broadly classified in two levels: Preliminary or high level design, Detailed design. The preliminary design can be further divided into two sub categories -Function Oriented Software Design-Object Oriented Software Design

### II. REVIEW OF LITERATURE

The method [1], witness's huge notice and a wealth of assure in content-based image recovery as a rising

technology. It also a horizontal way for a huge number of new techniques and systems, get various new citizens include. In this piece, we survey almost 300 new hypothetical and experimental charity in the existing decade related to image recovery and regular image clarification. We also discuss significant challenges involved in the difference of existing image recovery techniques to build systems that can be useful in the genuine world. In retrospect of what has been achieved so far, we also work out what the prospect may hold for image recovery study.

Predictable methods [2] of image revival require that metadata is connected with the image, usually known as keywords. Though some content based image retrieval systems utilize together semantic and prehistoric attributes to relation search principle, history has proven that it is tricky to remove linguistic in sequence from a 2D picture. In this observe, activity theory is used as a foundation to express how semantic in sequence can be retrieved from objects recognized in a picture. Via a picture segmentation method.

By The Berkeley Digital Library Project, and merge it with, a high-level accepting of he picture can be established Content-Based Image Retrieval [3] has become one of the popular most research areas. Many diagram attribute representations contain been explored and many systems build. While, these research information found the foundation of satisfied based image recovery, the kindness of the future approaches is incomplete. Specially, these efforts have comparatively overlooked two different characteristics of systems the space between towering level concepts and low level skin texture bias of human compassion of visual content. Which electively takes into account the above two uniqueness in CBIR. During the recovery process, the user's high level query and insight partisanship are captured by dynamically updated weights based on the user's advice. The provisional results over more than 70,000 images show that the future approach greatly reduces the user's effort of composing a doubt and capture the user's in sequence.

Application feedback [4] scheme based on support vector equipment have been generally used in content-based image retrieval. However, the arrangement of based application criticism is frequently abridged when the figure

of labeled positive advice sample is little. This is mostly due to three reasons a classifier is disturbed on a little sized teaching locate, and over suitable happens since the number of characteristic dimensions is much senior than the size of the preparation set. In this document, we expand a device to overcome these troubles. To speak to the first two troubles, we propose an asymmetric container based. For the third problem, we combine the random subspace method and SVM for application feedback, which is named random subspace SVM (RS-SVM). Finally, by AB-SVM and RSSVM, an asymmetric bag and accidental subspace SVM (ABRS-SVM) is build to solve these three problems and further improve the application feedback performance. Some researchers used Image processing techniques for security [5][6] and for agriculture and horticulture produce[7][8].

### III. PROPOSED SYSTEM

In the present system all work is done on paper. The whole session attendance is stored in register and at the end of the session the reports are carried out. We are not interested in generating report in the middle of the session or as per the requirement because it takes more time in calculation. At the end of session the students who don't have 85% attendance gets a notice.

- User Friendly - The proposed system is user friendly because the retrieval and storing of data is fast and data is maintained efficiently. Moreover the graphical user interface is provided in the proposed system, which provides user to deal with the system very easily.
- Reports are easily generated: reports can be easily generated in the proposed system so user can generate the report as per the requirement (monthly) or in the middle of the session. User can give the notice to the students so he/she become regular.
- Very less paper work: The proposed system requires very less paper work. All the data is feted into the computer immediately and reports can be generated through computers. Moreover work becomes very easy because there is no need to keep data on papers.
- Computer operator control: Computer operator control will be there so no chance of errors. Moreover storing and retrieving of information is easy. So work can be done speedily and in time.

### PROCESS

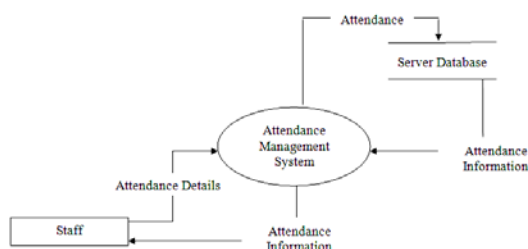


Fig 1: Level 1 Diagram

Implementation is the realization of an application, or execution of a plan. Our application is implemented according to three tier architecture as shown in below figure 5.1 Three tier architecture is commonly known as Client-

Server architecture, where Client is the consumer of the services, also the requester of services whereas the server side is the provider of services. The third layer that is the middle layer that converts the users requests into server understandable form.

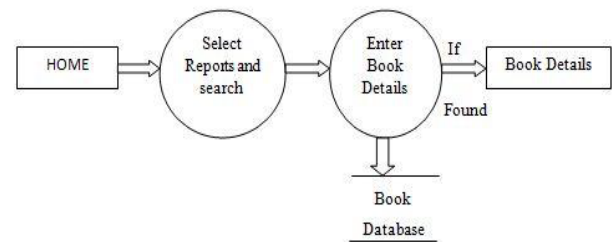


Fig 2: Level-2 DFD

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- Preliminary or high level design
- Detailed design
- The preliminary design can be further divided into two sub categories
- Function Oriented Software Design
- Object Oriented Software Design

The context-level DFD is then exploded to produce a Level 1 DFD which models the details of the system. The Level 1 DFD shows how the system is divided into sub-systems (processes), and how each processes deals with one or more of the data flows to or from an external entity, and how the processes together provide all of the functionality of the system. The level 1 DFD also identifies the internal data stores which must be there for the system to do its job, and shows the data flow between the various parts of the system. The UML Collaboration Diagram is used to form how objects involved in the scenario, to interact with each object instantiating with a particular class in the scheme. The Objects are usually connected by the links, where each link is representing an instance of an association between the respective classes involved. The link shows the messages sent between the objects, and type of the message is passed (synchronous, synchronous, simple, balking and timeout).

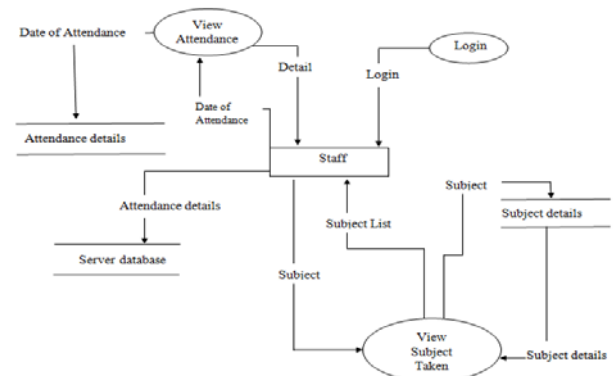


Fig2

Collaboration diagram offers a better view of scenario than the Sequence diagram when the modular is trying to understand all the effects on a given object and are therefore good for procedural design. The Collaboration Diagram is

very understandable compare to the sequence diagram as shown below.

System testing is an important stage in the system development life cycle. It is essential for thorough checking and fault finding for different sets of conditions. The developed product is tested for various inputs and it should be error free and should work normal under normal condition as long as user gives proper inputs. There are many ways of testing the reliability, completeness, correctness, robustness and maintainability of the software package.

The testing commences with the test plans and terminates with the acceptance testing. Testing is applied at different levels in the software development Life cycle. The focus of all testing is to find errors, but different types of errors, are errors are looked for different levels.

## USERS

Library Management System basically has two main modules for proper functioning.

□ First module is admin module in which he verifies student's registration details and approves students so that student can borrow books from library. Admin can add new books, update existing book details and generate reports and issue books to the students. Admin can view existing and issued book details.

□ Second module is student module in which students can register them for borrowing books from the library. Students can search the books in the library and request books to the librarian.

## IV. CONCLUSION

This Software is developed using C#.NET fully meets the objectives of the system which it has been developed. The system has reached a steady state where all bugs have been eliminated. The system is operated at a high level of efficiency and all the staff members and user associated with the system understands its advantage. The system solves the problem. It was intended to solve as requirement specification.

## V. FUTURE ENHANCEMENT

The system can be further enhanced for several other functionalities that can be added at the college level for monitoring and recording the data for future usage. The database can be maintained for larger set of data that is dynamic. Further it can be added with internal module so that every record can maintain easily. We can back up our database for period of time and retrieve whenever it will be necessary.

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