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PROJECT SYNOPSIS

TITLE: SCHOOL BILLING SYSTEM

by

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CERTIFICATE

Certified that the min project work titled **'School billing system'** is carried out by **Aadarsh Raj (1RF19IS001), Divyang Awasthi (1RF19IS016), Rishabh Anand (1RF19IS043), Shikhar Jaiswal (1RF19IS051) who** are bona fide students of RV Institute of Technology and Management, Bangalore, in partial fulfillment for the completion of **Data Structures Mini Project,** for the third semester during the year **2020-21**. It is certified that all corrections/suggestions indicated for the project have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed by the institution for the said degree.

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SYNOPSIS

The purpose of this study is to develop a School management system to assist in the management of Fees and Salary which ease the process of doing this job than earlier pen and paper-based management. So, the development of a software application "Student Management System introduces the automation in the organizations serving this purpose.

This project is carried out as partial fulfillment of the degree of B.E. Nowadays this kind of application is very essential for any small or medium- sized organization. An Accountant, regardless of the number of Staff and Student, must maintain all records pertaining to the payment/fees system digitally.

This application will help to calculate the student's fee, teacher's salary and other relevant calculations automatically.

ACKNOWLEDGEMENT

School Management System has been developed successfully with the immense contribution of our mentor. We would like to take the opportunity to thank and express our deep sense of gratitude to our mentor Dr Prathima Guruprasad for giving us the opportunity to work on data structures and file handling in C. We would like to appreciate her guidance, encouragement and cooperation throughout the project.

We would also like to thank our Professor Dr Ajina A who has imparted the knowledge of Data Structures & Applications and made us thorough with the course, her valuable contribution and guidance have been certainly indispensable for our project work.

We hope that we can build upon the experience and knowledge that we have gained and make a valuable contribution in coming future.

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INTRODUCTION

1.1 OVERVIEW:

The school billing system project in C keeps record of all the students, teachers and staffs working in the institution. The program is run by the administrator who can add, record, modify, delete and find records according to the need. The basic feature of this project is that it shows fees that the students need to pay or dues and advance of the students.

The data within the program can be recorded by the input of current month and date. The project keeps record of students' name, class and roll number while it also keeps the record of teachers in the similar way.

The School billing system project in C utilizes data structure to store the records and provides access to the user whenever required. Individual structures are created for the date of input, for storing students' information.

Together with the data structure, the project utilizes functions to perform various operations. The function in the program are used for checking data, adding records, modifying records, searching and deleting records, calculating dues, total and advance information about fees of students.

1.2 BACKGROUND TO THE STUDY:

School management is a very common task for any School which has a number of employees and student. Though the method differs from organization to organization. The school management system of the earlier times had a manual system using ledger books to keep track of every single student fees history, and calculate. This pen and paper-based system is much time consuming and there is a great chance to make mistake as there are very good number of students in the organization and keeping patience is a tough job to manipulate so many things. Unauthorized persons however, easily accessed the paper system and hence making it impossible to keep secrecy and confidentiality. So, such a system is time consuming, prone to errors of entry and analysis resulting from the fatigue of the users.

Now if we view the system from the other students (who are the end user of the system) point of view, then the system is also monotonous. Because if one student wants to check his/her statistics of the salary/fees record then it is very difficult to get it without any help of automated system. So, it is obvious to migrate the whole process in an automated way so that which help the authority and user to maintain all the things with ease.

1.3 OBJECTIVES:

This study aimed to help a school to have an efficient and effective way of monitoring their students' fees to give a higher quality of service.

Specifically, attain to:

Develop a system that will improve the school process in the Timekeeping and maintaining accounts;

- Develop a system that will monitor student data that is efficient to use;
- Secure the records of student and to have more manageable files, managed by the administrator of the department.
- Calculate fees transaction easily; and
- Summarize all the accounts detail of student.

1.4 FEASIBILITY STUDY:

Before developing this project, we need a feasibility study to understand whether the project would be successful or not. Feasibility study is detailed analysis of any system. The two criteria to judge feasibility are cost required and value to be attained.

1.4.1 Factors of Feasibility Study:

i). Economic feasibility: Economic analysis is the most frequently used method for evaluating the effectiveness of a new system. More commonly known as cost/benefit analysis, the procedure is to determine the benefits and savings that are expected from a candidate system and compare them with costs. If benefits outweigh costs, then the decision is made to design and implement the system. The analysis must accurately weigh the cost versus benefits before taking an action. It is

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important to identify cost and benefit factors, which can be categorized as follows: 1. Development costs; and 2. Operating costs. This is an analysis of the costs to be incurred in the system and the benefits derivable out of the system. The development cost of the proposed system is affordable for any organization. And it needs no operating cost as to implement the system, they do not need purchase any extra equipment. Current hardware and network system is more than requirement for the future system. Again, there is no training cost associated to cope up with the system.

ii). 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. After analyzing the problems of the current system and the benefits of the proposed system, it will be clear that the proposed system will not be considered as loss at all

1.5 BENEFITS OF OUR SYSTEM:

School Management System developed for organizational application gives them the power to:

- Interact with the software with menu-driven programs with user friendly interface.

- Maintain student data efficiently.

- Manage the data.

- Prepare the detailed fees record of all the students in an organization.

1.6 SCOPE AND LIMITATION:

Scope:

- The proposed School Management System will cover many aspects of time keeping and fee process.

- This includes the capture of information based on the student fee schedule, time since last fee paid.

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- The system will have a file management where it covers the records of student.

- The system also covers the tracking of fees of student.

Limitation:

The proposed system cannot be accessed online and it focuses only on the school management System software of the organization. This proposed system is only applicable and can only be used by the management of any school. The proposed system may face data redundancy.

WORK DETAILS

2.1 SYSTEM OVERVIEW:

In this project, you can add, record, modify, search and delete the records of students. In addition to that, this mini project in C allows you to display fees, dues, total and advance of students.

For the entry of records, current date and month is asked. Then, you can select the account type, and perform billing operations like we mentioned above. In the add record, the name, class and roll no. of the student is asked.

Data structures have been used effectively to handle co-related functions and store the record. This school billing system C project comprises the following data structures:

struct dat – to store the date (month and day) of entry of records

struct student – to store and organize the record of individual students

We have used the different functions for performing different billing operations in School Billing System. Listed below are some functions which will give you an outline of the project and help you understand it better.

start() – shows the account selection screen

chkdat() – for checking date

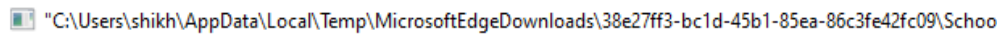addrec() – for adding records

modrec() – for modifying records

searchrec() – for searching records

delrec() – for deleting records

fee() – for recording the fee paid and displaying fine, due, total and advance

2.2 SCREENSHOTS:

1. Main Menu

```
                    PLEASE ENTER THE CHOICE
                    1:: Add record
                    2:: Search record
                    3:: Modify record
                    4:: Delete record
                    5:: Calculate fee
                    6:: Exit

        Enter choice:-
```

Here the record of a student can be accessed and maintained.

```
================================================
                 SEARCH RECORD
================================================

        PLEASE CHOOSE SEARCH TYPE::

        1::Search by name::

        2::Search by class::

        3::Exit

        ::Enter your choice::
```

```
================================================
                 SEARCH RECORD
================================================

        PLEASE CHOOSE SEARCH TYPE::

        1::Search by name::

        2::Search by class::

        3::Exit

        ::Enter your choice:: 2

    Enter class of student to search: 10

name = Rohan
class = 10
roll no = 50
monthy fee =2000.00
last fee paid in month = 2
 due=8000.00
 fine=80.00
 total=8080.00
name = Jay
class = 10
roll no = 35
monthy fee =2000.00
last fee paid in month = 5
 due=2000.00
 fine=0.00
 total=2000.00
name = Koby
class = 10
roll no = 23
monthy fee =2000.00
last fee paid in month = 6
 due=0.00
 fine=0.00
 total=0.00

Press any key to continue . . .
```

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```
        ================================================
                        DELETE RECORD
        ================================================

        Enter name of student to delete: Jay


RECORD SUCCESSFULLY  DELETED

Press any key to continue . . . _
```

```
        ================================================
                        MODIFY RECORD
        ================================================

            PLEASE CHOOSE MODIFY TYPE::

            1::Modify by name::

            2::Modify by name &class::

            3::Modify by name,class & rollno::

            4::Exit

            ::Enter your choice:: _
```

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```
         ===============================================
                         SEARCH RECORD
         ===============================================

                 PLEASE CHOOSE SEARCH TYPE::

                 1::Search by name::

                 2::Search by class::

                 3::Exit

                 ::Enter your choice:: 2


         Enter class of student to search: 10

name = Rohan
class = 10
roll no = 50
monthy fee =2000.00
last fee paid in month = 2
 due=8000.00
 fine=80.00
 total=8080.00
name = Rashid
class = 10
roll no = 34
monthy fee =2000.00
last fee paid in month = 6
 due=0.00
 fine=0.00
 total=0.00

Press any key to continue . . . ▁
```

```
         ===============================================
                         MODIFY RECORD
         ===============================================

                 PLEASE CHOOSE MODIFY TYPE::

                 1::Modify by name::

                 2::Modify by name &class::

                 3::Modify by name,class & rollno::

                 4::Exit

                 ::Enter your choice:: 1


Enter name of student to modify: Koby

         Enter new name of student: Rashid

         Enter new class of student: 10

         Enter new roll of student: 34


RECORDS SUCCESSFULLY  MODIFIED

Press any key to continue . . .


Do you want to continue with the process(press y or Y)▁
```

CONCLUSION

- This program provides complete automation of all operations.

- It can be operated very easily. There is no need to recruit extra dedicated person or equipment to handle this application.

- It provides user friendly function. Though we have already added many features to this application, this application can be made more flexible and professional.

3.1 LIMITATIONS

The limitations of the application are as follows:
- Till now there is no login system in our application.
- We worked with only testing arbitrary data, so the application is   not tested with large scale real data which help to find bugs easily.
- Reports are not generated in other application such as Excel, PDF etc.
- No such encryption algorithms.
- Different database connection procedure is complex. Here we used only Files.
- In this application the coding structure is simple.

3.2 FUTURE SCOPE

In future we will overcome current limitations implement the following issues:

- We can develop the application in PHP or MYSQL.
- Applying the SSL (Secure Socket Level) for production   server.
- Implementing user management system according permission level.
- Appling time and skill reducing techniques.
- Generating report in other application like Excel, PDF etc.
- Merging modules.

BIBLIOGRAPHY

Modules:
RVITM Modules for Data Structures & Applications (18CS32)

Websites:
- www.geeksforgeeks.org

- www.overiq.com

- www.tutorialdost.com

Books:
- Let Us C - Yashavant Kanetkar