**DS MINI PROJECT**

**Name of the project**:

Student Database using Linked list.

Made By:

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**Problem Definition**:

For Implement the Mini Project of Student Database using Linked list It should be able to perform the following functions-

a. Creation of Student Database in memory containing student roll no, First Name, Last Name, Address, Contact No and Date of Birth .

b. Insertion of student record by student roll no.

c. Deletion of student record by student roll no.

d. searching of student record by student roll no.

c. Display the record

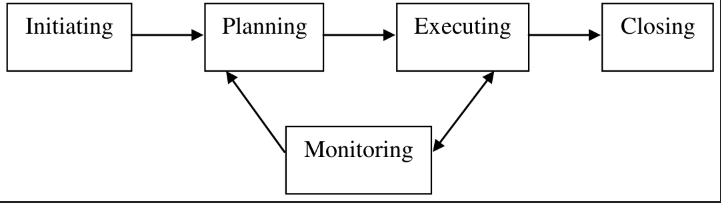
Description-

An organized and systematic office solution is essential for all universities and organizations. There are many departments of administration for the maintenance of college information and student databases in any institution. All these departments provide various records regarding students. Most of these track records need to maintain information about the students. This information could be the general details like student name, address, date of birth, contact no. etc or specific information related to departments like collection of data.

All the modules in college administration are interdependent. They are maintained manually. So they need to be automated and centralized as, Information from one module will be needed by other modules. For example when a student needs his course completion certificate it needs to check many details about the student like his name, reg number, year of study, exams he attended and many other details. So it needs to contact all the modules that are office, department and examination and result of students.

With that in mind, we overhauled the existing Student Database Management System and made necessary improvement to streamline the processes. Administrators using the system will find that the process of recording and retrieving students information and managing their classes, including marking of attendance, is now a breeze. In general, this project aims to enhance efficiency and at the same time maintain information accurateness. Later in this report, features and improvement that allow achievement to this goal will be demonstrated and highlighted.

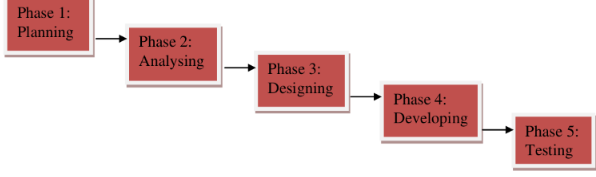
Our work is useful for easy user interface. We are planning to uttilize the powerful database management, data retrieval and data manipulation. We will provides more ease for managing the data than manually maintaining in the documents. Our work is useful for saving valuable time and reduces the huge paper work.



Project management skills are put to good use for this project. Project management focuses on achieving the objectives by applying five processes presented in the above Figure.

**RESOURCES**

Systems Development Life Cycle (SDLC) is the most common process adopted to develop a project and not surprisingly, this project is following this model too. To be precise, waterfall model is being applied. Waterfall model is a sequential model process where the input of a phase actually results from the previous phase.



There are five phases in this model and the first phase is the planning stage. The planning stage determines the objectives of the project and whether the project should be given the green light to proceed. This is where the proposal submission comes into picture. After obtaining the approval, the next phase is analysis. Gathering and analysing the system and user requirements is essential for entry to the design step.

After deciding on the scripting language and database, the program analysis is started

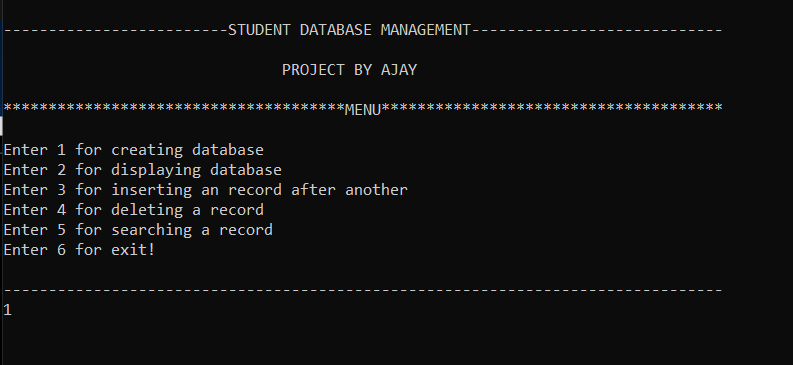
**SYSTEM ANALYSIS AND DESIGN**

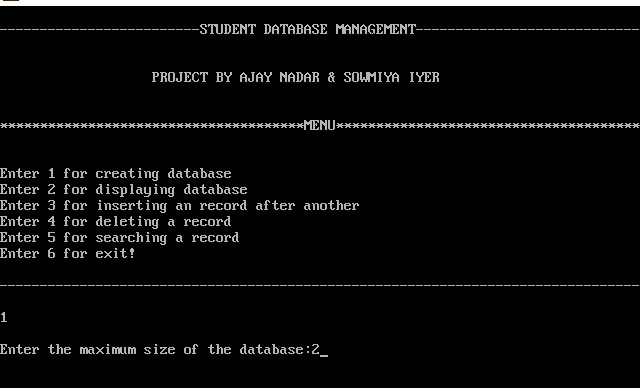
In order to provide a clearer picture of the functionality provided by the student management module, we have done a use case analysis.

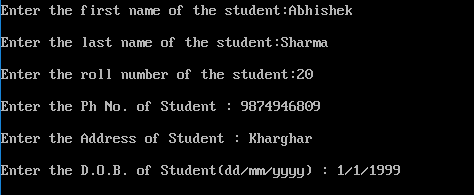
Under the existing student management module, the administrator has to first register the details. This includes the roll number,  name ,etc . After submitting this Data we can perform all the provided operations like search, insert, delete.

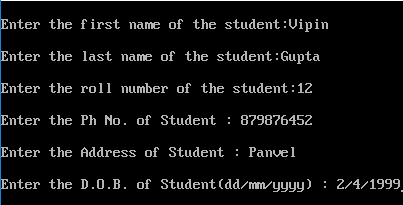
**Result:**

Create:-

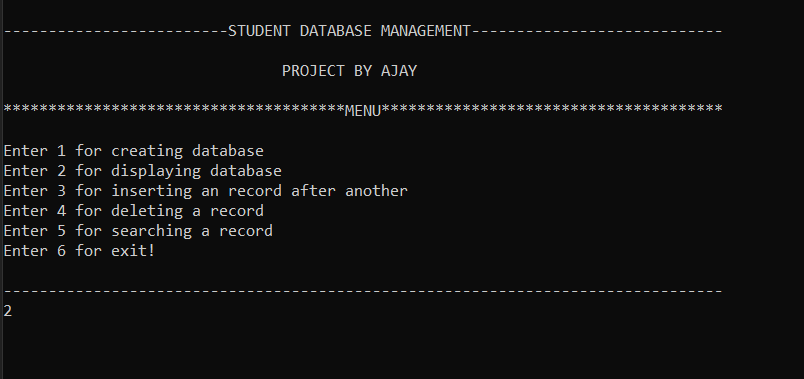


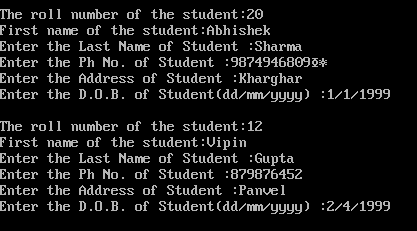




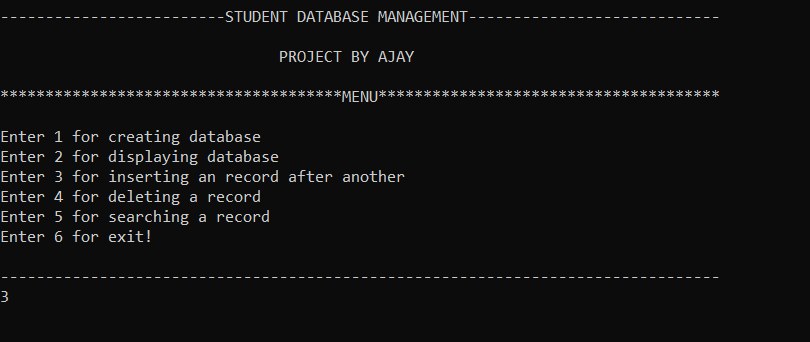


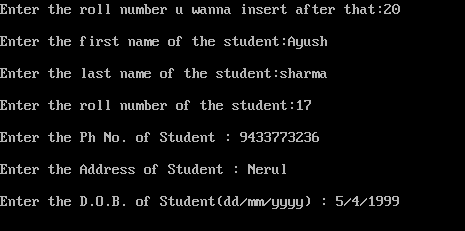
Display:-

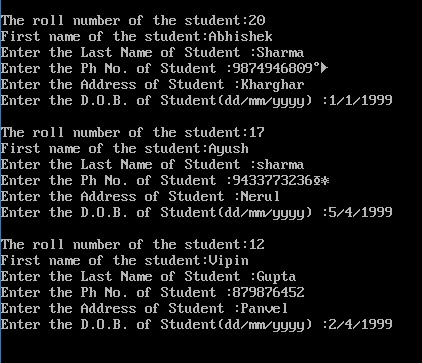


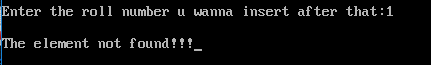


Inserting a record after another : -

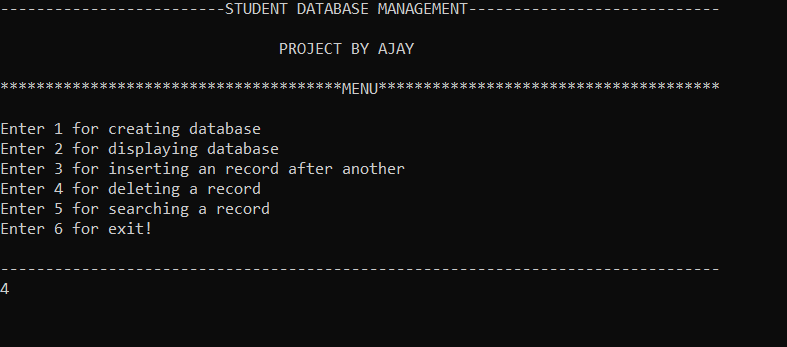




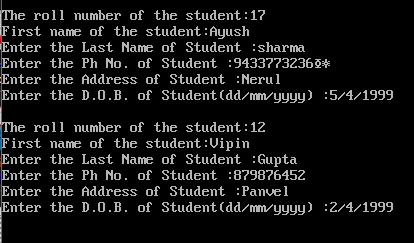




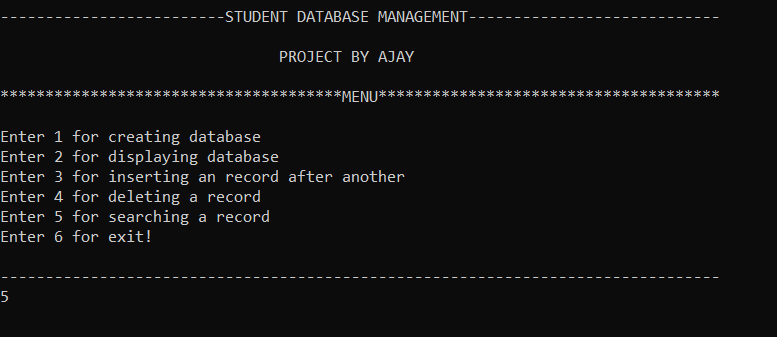
Deleting a record: -

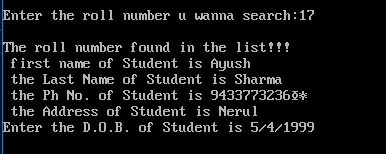


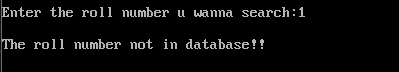




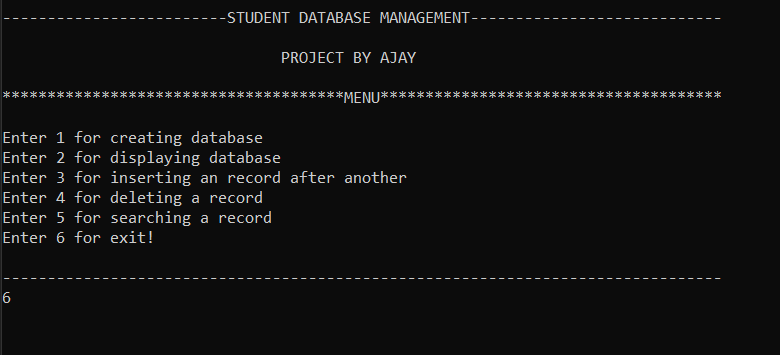
Searching a record:-







Exit:



**Conclusion:**

The execution of the program was done successfully. A program to implement of student database management using Linked list was made.