LIBRARY BOOK REQUEST RAISER

Project Exhibition -1

Submitted in partial fulfillment for the award of the degree of

Masters in Computer Applications
In
SCSE(School of Computing Science and Engineering)

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CANDIDATE'S DECLARATION

I hereby declare that the Dissertation entitled Library Book Request Raiser is my own work conducted under the supervision of Dr Kanchan Lata K, M.C.A at VIT University, Bhopal.

I further declare that to the best of my knowledge this report does not contain any part of work that has been submitted for the award of any degree either in this university or in other university / Deemed University without proper citation.

Roushil Singla

18MCA10028

This is to certify that the above statement made by the candidate is correct to the best of my knowledge.

Guide Name : Dr Kanchan Lata

Designation : Associate Professor

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CERTIFICATE

This is to certify that the work embodied in this Project Exhibition -1 report entitled **Library book Request Raiser** has been satisfactorily completed by **Mr. Roushil Singla** Registration No **18MCA10028** in the School of Computer Science & Engineering of MCA at VIT University, Bhopal. This work is a bonafide piece of work, carried out under my guidance in the School of Computer Science and Engineering for the partial fulfillment of the degree of Masters in Computer Applications.

Dr Kanchan Lata k
Associate Professor

Dr Baseera Rahman
Program Chair

Dr S Raju
Dean

ACKNOWLEDGMENT

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EXECUTIVE SUMMARY

The project is on the topic Library Book Request Raiser. It will work according to the user's demand and issue the books online by raising a request so that the user do not have to go to library and search for books from the shelves. The admin will be having check on the number of books issued by the user. The users have to insert the Username and Reg_No as the password to login into the library.

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LANGUAGE ADAPTATION

- **JAVA -** Java is a programming language and a platform. Java is a high level, robust, object-oriented and secure programming language. Java is a general-purpose computer-programming language that is concurrent, class-based, object-oriented and specifically designed to have as few implementation dependencies as possible.
- **SWING -** Swing is a GUI widget toolkit for Java. It is part of Oracle's Java Foundation Classes (JFC) an API for providing a graphical user interface (GUI) for Java programs. Swing was developed to provide a more sophisticated set of GUI components than the earlier Abstract Window Toolkit (AWT) . Unlike AWT, Java Swing provides platform-independent and lightweight components.The javax.swing package provides classes for java swing API such as JButton, JTextField, JTextArea, JRadioButton, JCheckbox, JMenu, JColorChooser etc.

SYSTEM SPECIFICATIONS

Software Requirements-

- Visual Studio Code
- MySQL Server for Database Connectivity
- NetBeans 8.1
- XAMPP for MySQL Web Server

Hardware Requirements-

- Processor : Intel core i5 with the speed of 1.6GHz
- Hard Disk: 40GB
- RAM: 265 MB or more

SYSTEM DESIGN METHODOLOGIES

Systems design is the process of defining the architecture, modules , interfaces, and data for a system to satisfy specified requirements. Systems design could be seen as the application of systems theory to product development. There is some overlap with the disciplines of system analysis, system architecture and systems engineering.

- **Architectural design**

The architectural design of a system emphasizes the design of the system architecture that describes the structure, behavior and more views of that system and analysis.

- **Logical design**

The logical design of a system pertains to an abstract representation of the data flows, inputs and output of the system. This is often conducted via modeling, using an over-abstract (and sometimes graphical) model of the actual system. In the context of systems, designs are included. Logical design includes entity-relationship diagrams (ER diagrams).

- **Physical design**

The physical design relates to the actual input and output processes of the system. This is explained in terms of how data is input into a system, how it is verified/authenticated, how it is processed, and how it is displayed. In physical design, the following requirements about the system are decided.

1. Input requirement
2. Output requirements
3. Storage requirements
4. Processing requirements
5. System control and backup or recovery

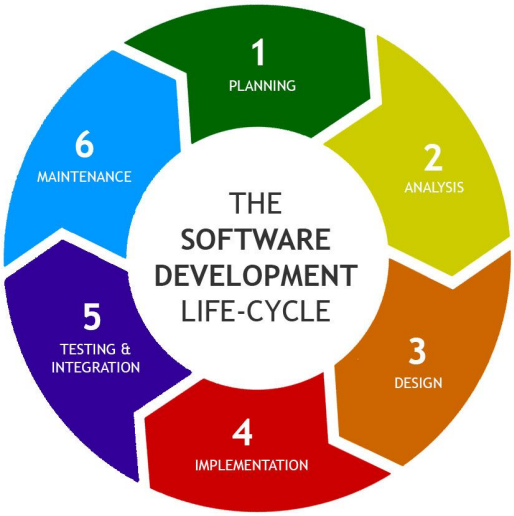
Put another way, the physical portion of system design can generally be broken down into three sub-tasks:

1. User Interface Design
2. Data Design
3. Process Design

Physical design, in this context, does not refer to the tangible physical design of an information system. To use an analogy, a personal computer's physical design involves input via a keyboard, processing within the CPU, and output via a monitor, printer, etc. It would not concern the actual layout of the tangible hardware, which for a PC would be a monitor, CPU, motherboard, hard drive, modems, video/graphics cards, USB slots.

SDLC(SYSTEM DEVELOPMENT LIFE CYCLE)

System development life cycle. SDLC is a system development life cycle of software development life cycle. It include guideline policies and procedures for developing system. through their life cycle it include requirement design implementation, testing, deployment operation and maintenance.



REQUIREMENT ANALYSIS

Data gathering is the step in which collect data about the system to be developed. We use different tools and methods depending on situations.
Written document may be reports, forms, business plans, memos, policy statement, organizational chart and many others. It provides valuable information about the existing system.

REQUIREMENTS:-

1) Responsive Templates..
2) User can access data If User logged in.
3) All data stored in Database.
4) User Friendly Environment.
5) Show my Own portfolio & Bio.
6) When User give feedback then mail come to me.
7) Problem identification and project initiation
8) Background analysis
9) Inference or Findings

FEASIBILITY STUDY

Feasibility study is used to assess the strengths and weakness of a proposed project and present directions of activities which will improve a project and achieved desired result.It involves an examination of operation,HR and marketing aspects of a business on ex ante basis.
Feasibility study is designed to provide an overview of the primary issue related to the business idea.

Feasibility study involves:
Appraisal of existing system and manual process- Troubleshooting, process reengineering, risk analysis and assessment, risk management, cost benefit analysis, impact analysis, integration of existing of new system, resource requirement planning and timing.

There are many different types of feasibility studies; here is a list of some of the most common:

Technical Feasibility – Does the company have the technological resources to undertake the project? Are the processes and procedures conducive to project success?

Economic Feasibility – Given the financial resources of the company, is the project something that can be completed? The economic feasibility study is more commonly called the cost/benefit analysis.

Operational Feasibility – This measures how well your company will be able to solve problems and take advantage of opportunities that are presented during the course of the project

Organizational feasibility – Whether the proposed system is consistent with the organization's strategic objectives?

DESIGN AND ANALYSIS

- **Identification of Objects:-** The object are as follows :- Welcome Page, Subjects, Books, User_acc, Admin_Acc
- **Identification of Entities:-** The entities are as follows:- Student, Teacher, Subject,Book

Attributes for the following Entities:

A. Student: sid, Reg_No, snames

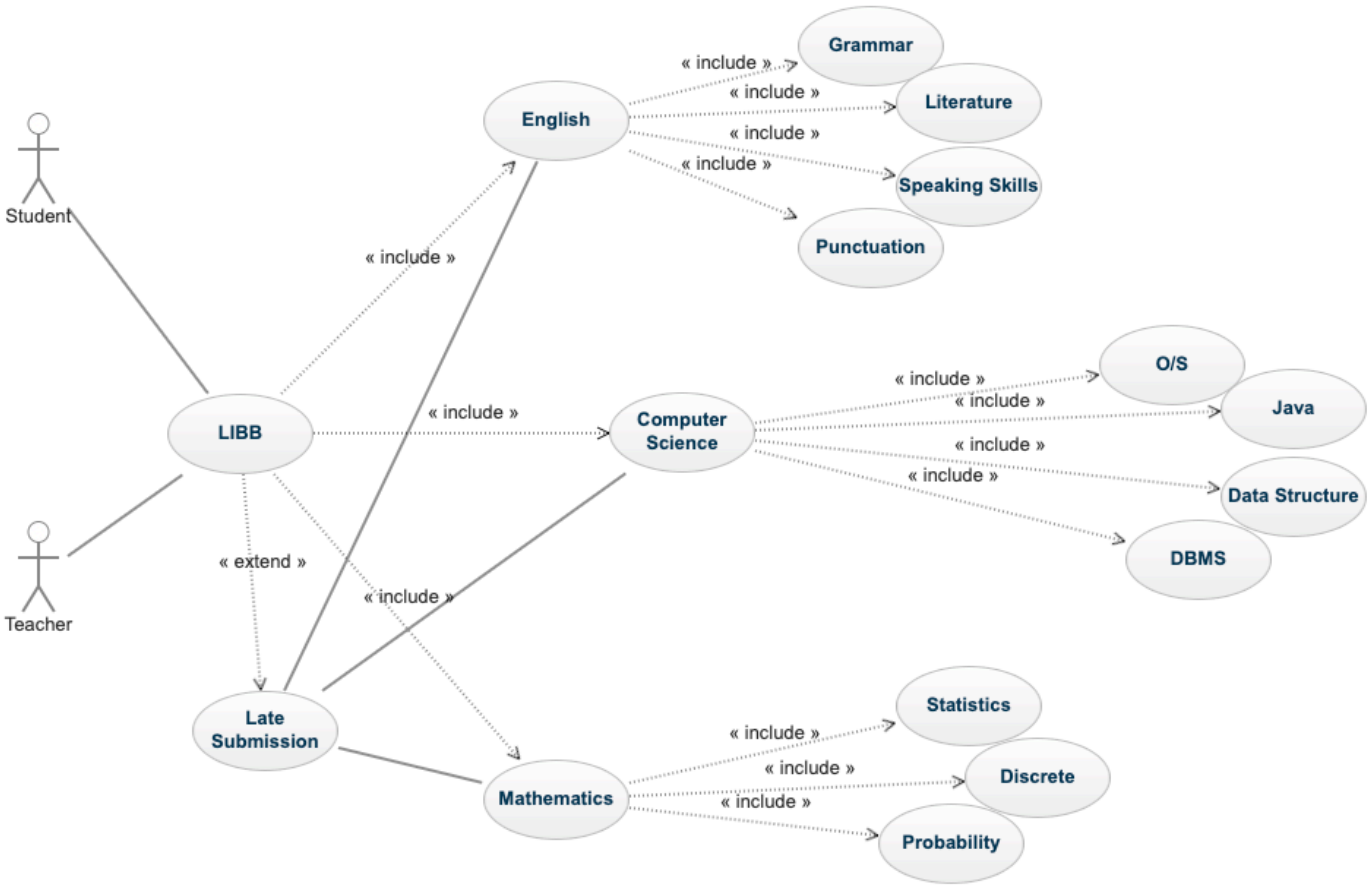
B. Teacher: tid, TReg_No, tnames

C. Subject: subid, subname

D. Book: bid, Bname, subid, Available

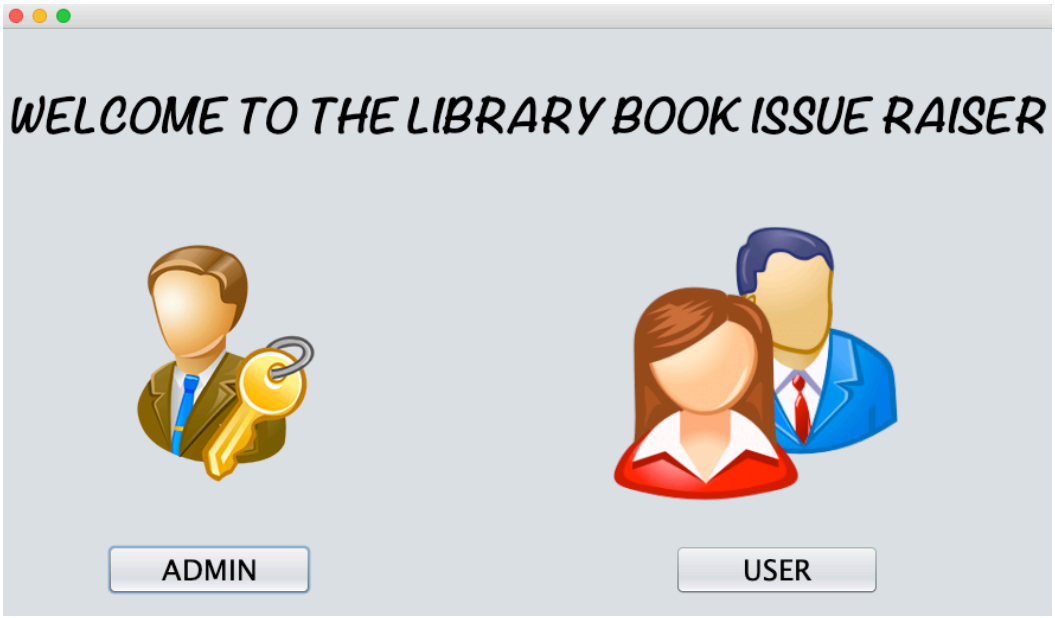
UML ARCHITECTURE

UML is a standard language for specifying, visualizing, constructing, and documenting the artifacts of software systems.A picture is worth a thousand words, this idiom absolutely fits describing UML. Object-oriented concepts were introduced much earlier than UML. At that point of time, there were no standard methodologies to organize and consolidate the object-oriented development. It was then that UML came into picture.
UML diagrams are not only made for developers but also for business users, common people, and anybody interested to understand the system. The system can be a software or non-software system. Thus it must be clear that UML is not a development method rather it accompanies with processes to make it a successful system.
UML is a modeling language used to model software and non-software systems. Although UML is used for non-software systems, the emphasis is on modeling OO software applications. Most of the UML diagrams discussed so far are used to model different aspects such as static, dynamic, etc. Now whatever be the aspect, the artifacts are nothing but objects.



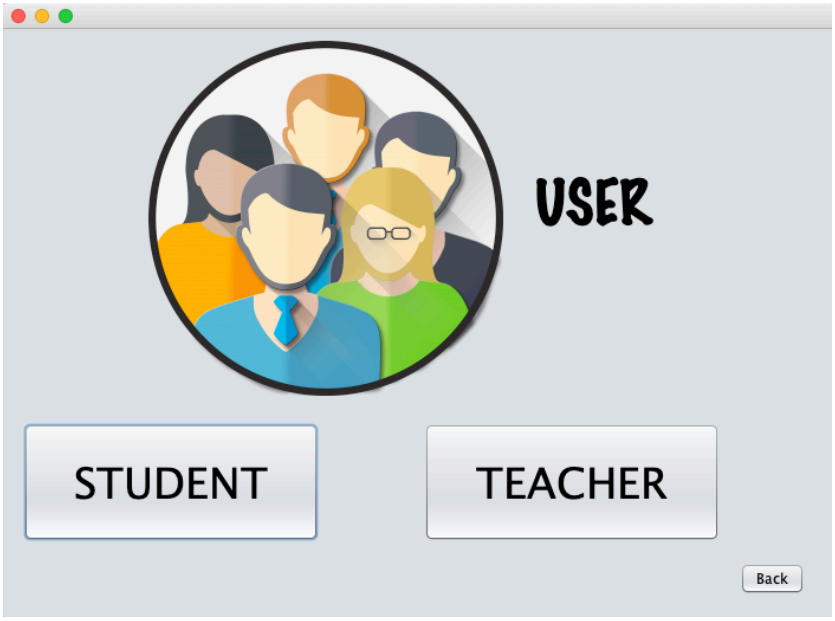
Architecture for Library Book

WELCOME PAGE

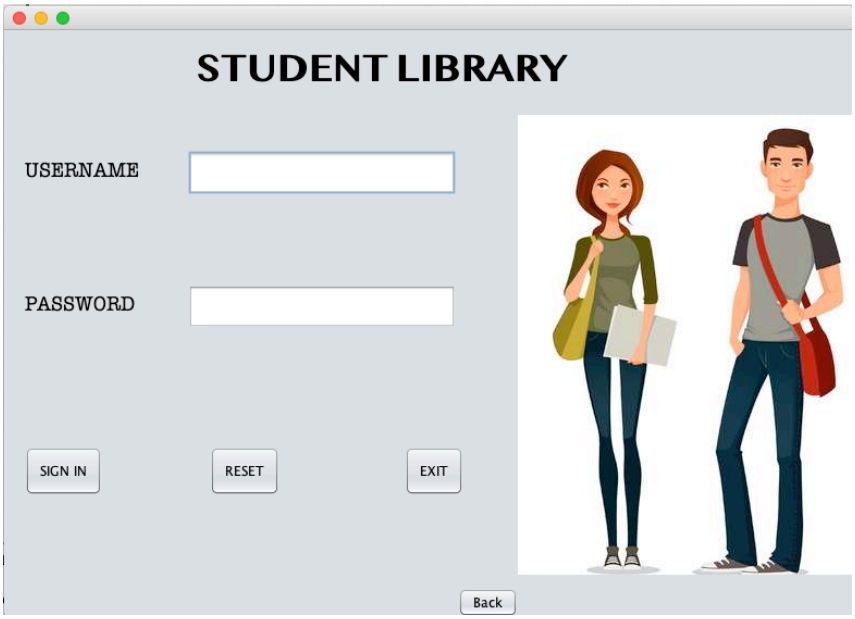


ADMINISTRATOR PAGE

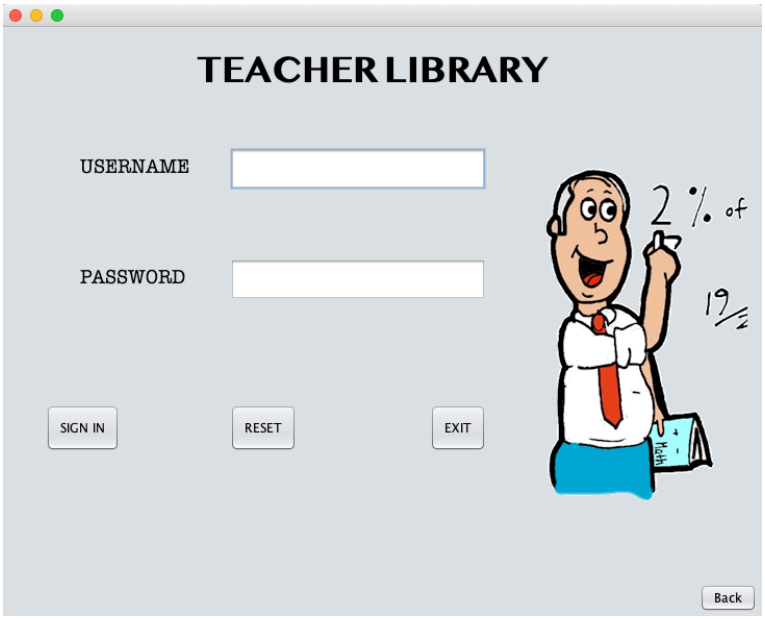
USER PAGE



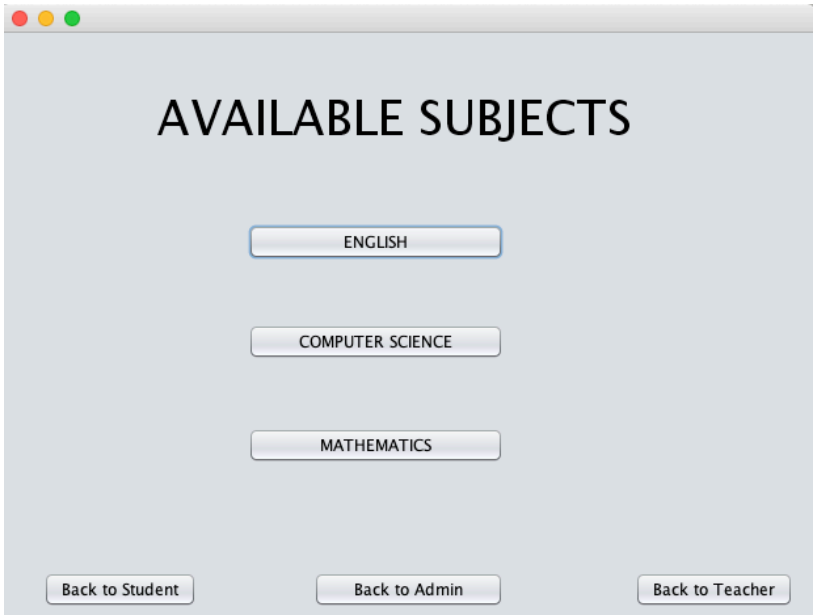
STUDENT PAGE



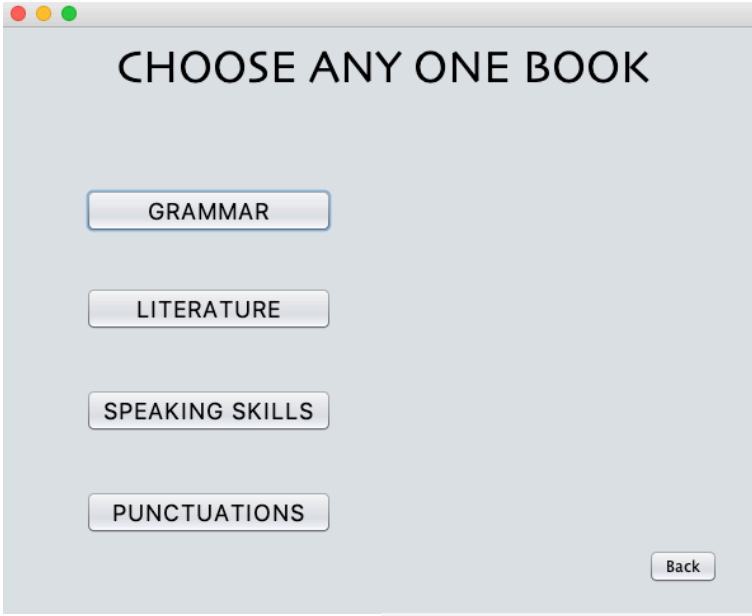
TEACHER PAGE

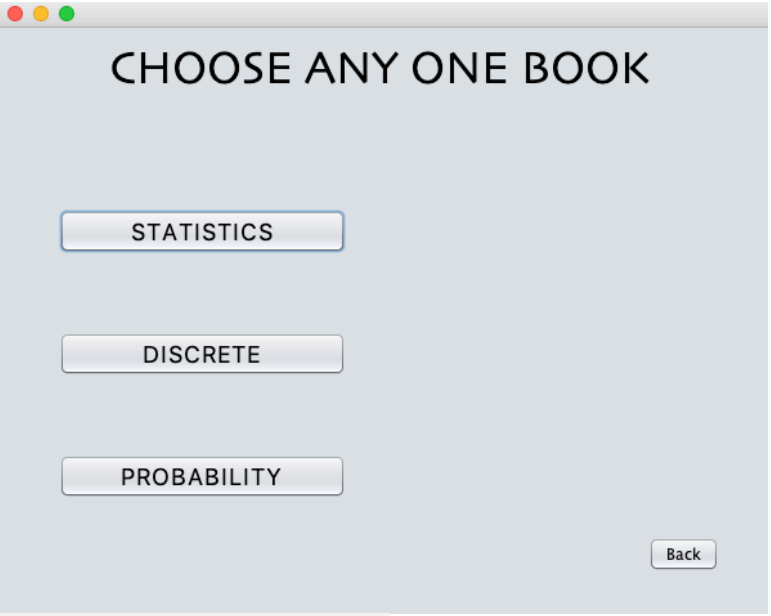


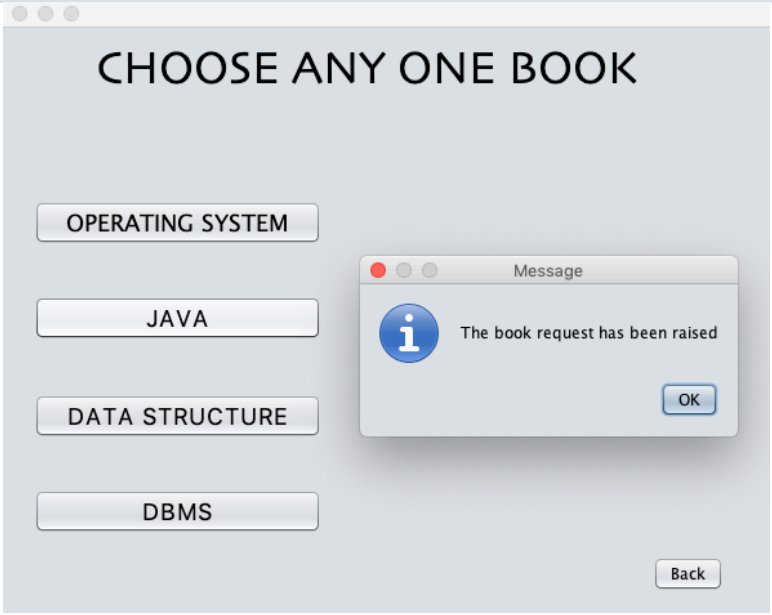
AVAILABLE SUBJECTS



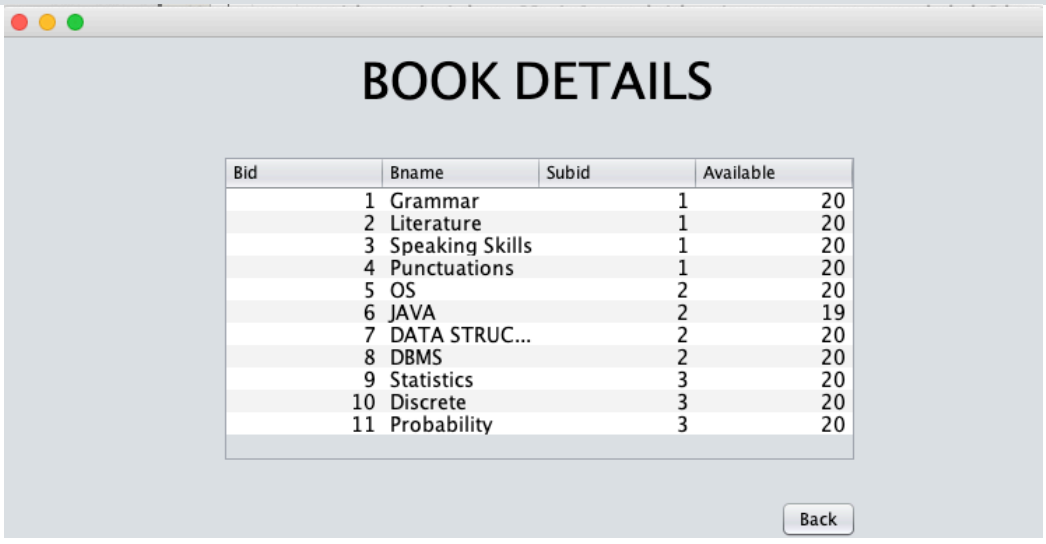
ISSUING BOOKS







DATABASE ACCESS IN JTABLE



CONCLUSION

- Used for computerizing the work in a library
- Software takes care of all the requirements of library by providing easy and effective storage of information related to the books and users
- The objective is to provide facility to the user to raise the request for the books required

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