

***Departmental Library Management System,
Computer Science and Engineering Department,
VNIT Nagpur – 440010***

This project was successful due to the grace of Almighty God and the unwavering support of several key individuals and groups. I extend my heartfelt gratitude to the Head of the Department (CSE Department), Mrs. Madhuri Pimple, and Mrs. Bharati Polke, whose guidance, support, and encouragement were instrumental in bringing this project to fruition. I am also immensely grateful to the entire CSE Department staff and the faculties of VNIT Nagpur for their invaluable assistance and the knowledge they imparted.

The Department Library of the CSE Department has been a significant resource for students like me, allowing us to keep books for the entire semester without the worry of renewals. It houses specific books that are sometimes unavailable in the Institute Library. I am pleased that a student-made system will digitize the department library operations, enhancing its efficiency and accessibility. I humbly request further expansion and development of the library to benefit even more students in the future.

Kaustubh Shivshankar Shejole

BT20CSE112

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1. INTRODUCTION – Starting the system



This is the icon of Departmental Library Management System (DLMS in short). Clicking on this icon opens a terminal where the

commands to run a process happens and **a tab in Google Chrome** Google Chrome is opened automatically and, on this browser, the complete system runs.

2. HOME PAGE

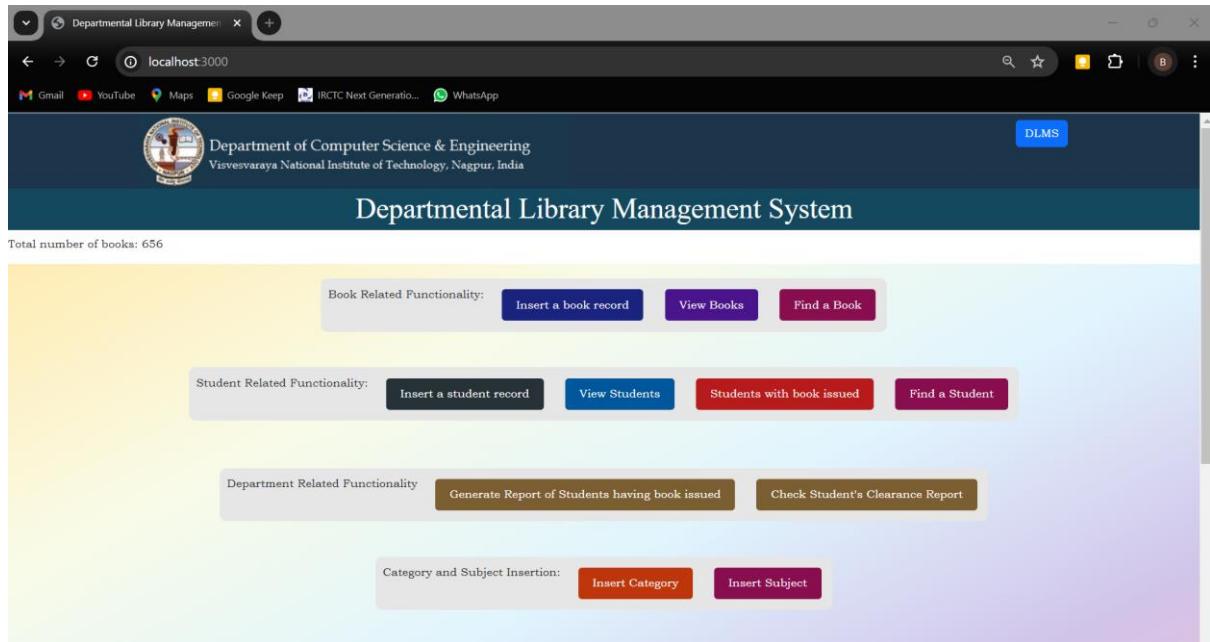


Figure 1: Showing the home page of the DLMS system.

The first window that we get to see when the chrome browser opens is the home page as shown in Figure 1.

button is disabled and hence we can only go forward or go to the home page by clicking at button which is located at top-right side of the webpage.

Total number of books: 656

The home page shows the total number of books available in the library.

Then we have some functionalities given as follows:

1. Book Related Functionality
2. Student Related Functionality
3. Department Related Functionality
4. Category and Subjects Insertion
5. View Subjects and Categories
6. Backup Functions
7. Faculty Related Functionality

3. BOOK RELATED FUNCTIONALITIES



This functionality deals with book-related matters like inserting a new book record, viewing the book and searching a book.

1. Inserting a book record:

- Go to home page by Clicking on button.

- Click on button in Books Related Functionality.
- The page open which look like the following

The screenshot shows a form for inserting a book record. It includes the following fields:

- Book's serial number:
- Title:
- Number of Authors:
- Publication:
- Select Subject:
- ISBN_NUMBER:

At the bottom right of the form is a blue button labeled "Insert this Book Record".

- Book's serial number is automatically given by the system.
- Enter the book's title.
- Entering the details in Number of Authors would automatically open the text for author names shown as follows:

Title:

C Programming

Number of Authors:

3

Author 1's Name:

Author 2's Name:

Author 3's Name:

Publication:

Select Subject: ACA ▾

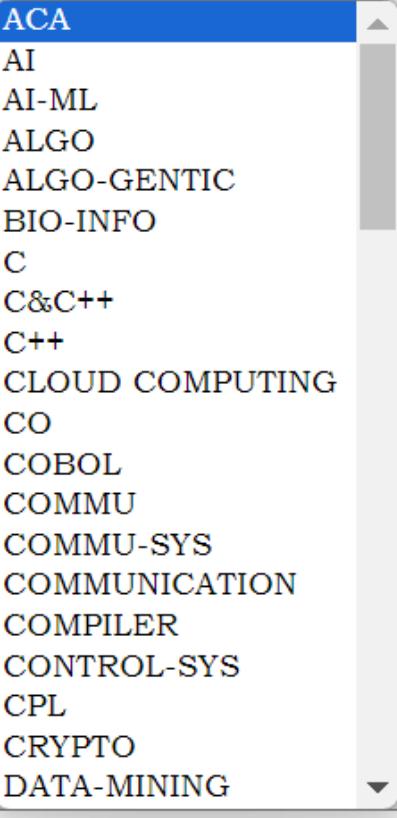
- g. After that enter the Publication details.
- h. Clicking on the drop-down list will open a list of subjects shown as follows:

Author 1's Name:

Author 2's Name:

Author 3's Name:

Publication:

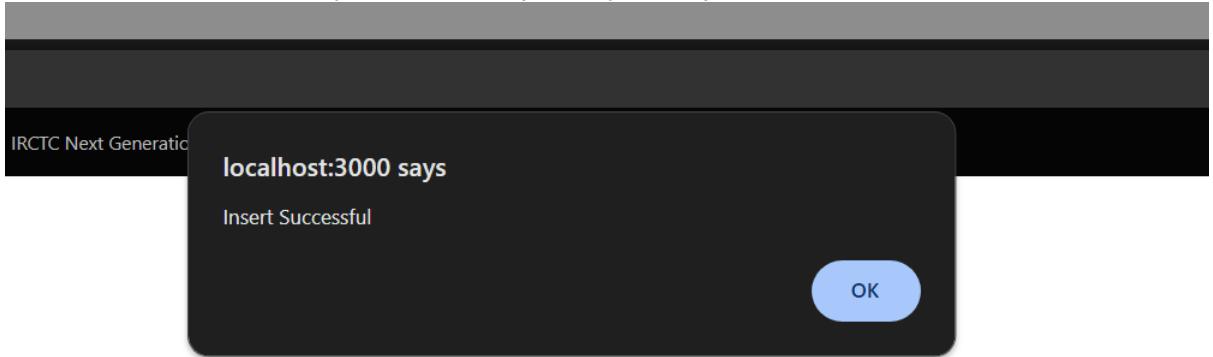
Select Subject: 
The dropdown menu lists the following subjects:
ACA
AI
AI-ML
ALGO
ALGO-GENTIC
BIO-INFO
C
C&C++
C++
CLOUD COMPUTING
CO
COBOL
COMMU
COMMU-SYS
COMMUNICATION
COMPILER
CONTROL-SYS
CPL
CRYPTO
DATA-MINING

ISBN_NUMBER:

Insert this Book Record

Select appropriate subject from the list of subjects.

- i. Then enter the ISBN Number which is usually at the back-cover of a book or on the first pages at the downside of the book.
- j. Then Click on **Insert this Book Record** Button.
- k. On successful insert you will get the result as follows:



- I. After which clicking on OK will take you on the home page.
- m. In case you missed out filling some field and clicking on **Insert this Book Record** you will be reminded of that as follows

Number of Authors:

Author 1's Name:

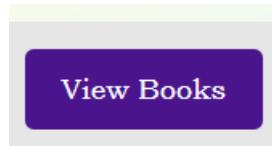
Publication:

! Please fill out this field.

IN THIS WAY, WE CAN INSERT A BOOK RECORD.

2. Viewing Books:

- a. Go to home page by Clicking on **DLMS** button.



- b. Click on **View Books** button in Books Related Functionality.

- c. A page will open which look like the following

1 : Elements of Discrete Mathematics Authors: C.L. Liu Serial: 1	2 : Software Testing in Real World Authors: Edward Kit Serial: 2	3 : Core Java Fundamentals, Vol I Authors: Horstmann, Cornell Serial: 3	4 : UNIX Internals - The New Frontiers Authors: Uresh Vahalia Serial: 4	5 : An Embedded Software Primer Authors: David E. Simon Serial: 5
6 : Advanced Compiler Design Implementation Authors: Steven S. Muchnick Serial: 6	7 : The Object Oriented Thought Process Authors: Matt Weisfeld Serial: 7	8 : Data Structure Algorithms & Applications Authors: Sartaj Sahni Serial: 8	9 : Software Fundamentals: Collected Papers Authors: Daniel M. Hoffman, David M. Weiss Serial: 9	10 : Writing UNIX Device Drivers Authors: George Pajari Serial: 10
11 : Programming pearls Authors: John Bentley Serial: 11	12 : Database System Implementation Authors: Ullman, Serial: 12	13 : Computer Organization & Design Authors: David Patterson, Hennessy Serial: 13	14 : UNIX Network Programming Vol. I Authors: Stevens W.R. Serial: 14	15 : Learning pearl Authors: Randal Schwartz Serial: 15
16 : Genetic Algorithms Authors: David Goldberg	17 : Beginning Linux Programming Authors: N. Mathew,	18 : Managing Presentation Authors: Savita B.	19 : Discret Maths Authors: Edgar Goodaire Serial: 19	20 : Design Patterns Authors: Gamma et al. Serial: 20

Clicking on any book show its detail in the blank space present in the right side as follows:

1 : Elements of Discrete Mathematics Authors: C.L. Liu Serial: 1	2 : Software Testing in Real World Authors: Edward Kit Serial: 2	3 : Core Java Fundamentals, Vol I Authors: Horstmann, Cornell Serial: 3	4 : UNIX Internals - The New Frontiers Authors: Uresh Vahalia Serial: 4	5 : An Embedded Software Primer Authors: David E. Simon Serial: 5
6 : Advanced Compiler Design Implementation Authors: Steven S. Muchnick Serial: 6	7 : The Object Oriented Thought Process Authors: Matt Weisfeld Serial: 7	8 : Data Structure Algorithms & Applications Authors: Sartaj Sahni Serial: 8	9 : Software Fundamentals: Collected Papers Authors: Daniel M. Hoffman, David M. Weiss Serial: 9	10 : Writing UNIX Device Drivers Authors: George Pajari Serial: 10
11 : Programming pearls Authors: John Bentley Serial: 11	12 : Database System Implementation Authors: Ullman, Serial: 12	13 : Computer Organization & Design Authors: David Patterson, Hennessy Serial: 13	14 : UNIX Network Programming Vol. I Authors: Stevens W.R. Serial: 14	15 : Learning pearl Authors: Randal Schwartz Serial: 15
16 : Genetic Algorithms Authors: David Goldberg	17 : Beginning Linux Programming Authors: N. Mathew,	18 : Managing Presentation Authors: Savita B.	19 : Discret Maths Authors: Edgar Goodaire Serial: 19	20 : Design Patterns Authors: Gamma et al. Serial: 20

Core Java Fundamentals, Vol I

Book Number: 3
Authors:
• Horstmann
• Cornell
Subject: JAVA
Publication: nan
ISBN: nan
Status: available

Issue **Update** **Details** **Issue By Faculty**

Here we clicked on Book 3 : Core Java Fundamentals, Vol I.

Details

Now Clicking on **Details** will show the details of the book as follows:

Book Information

Title: Core Java Fundamentals, Vol I

- **Book Number:** 3
- **Authors:** Horstmann, Cornell
- **Subject:** JAVA
- **Publication:** nan
- **ISBN:** nan
- **Id:** 6620dfd4cad73f02fd3ea2d2
- **Status:** 0
- **Last Issuing Date:** Sun Jun 23 2024 13:46:01 GMT+0530 (India Standard Time)

Student ID	Name	Enrollment ID	Issuing Date	Returning Date
25702	Kaustubh Shivshankar Shejole	BT20CSE112	23/6/2024	23/6/2024
25702	Kaustubh Shivshankar Shejole	BT20CSE112	23/6/2024	23/6/2024

Library Book History Card

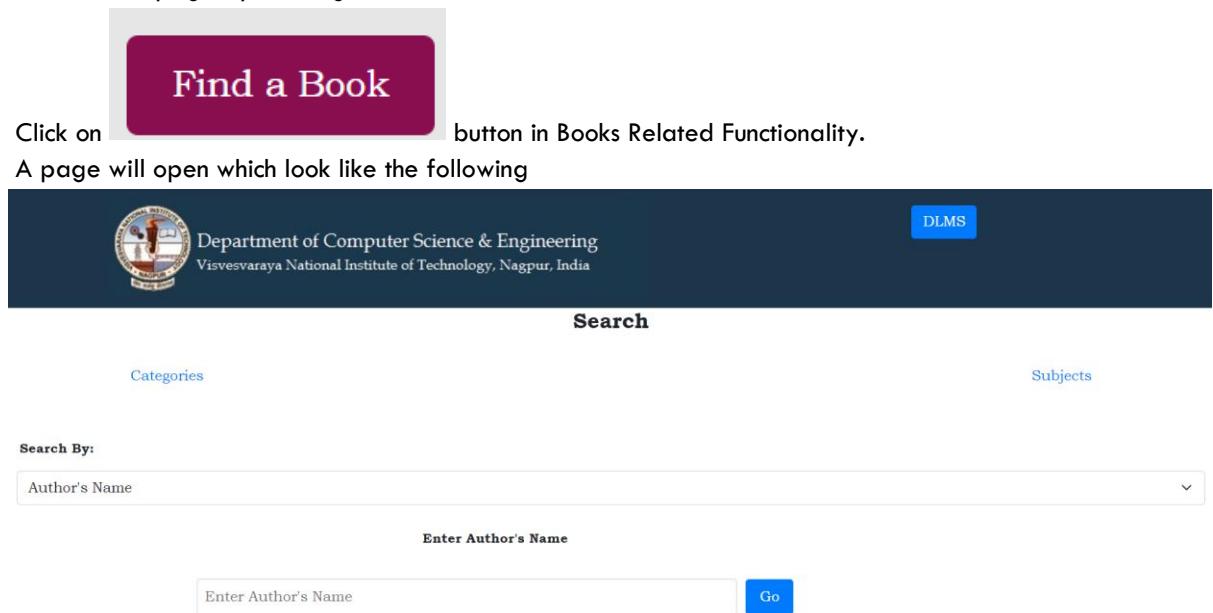
Including the details of the book with the Library Book History Cards showing the previous issuing of this book.

- d. Click on  button and go to the home page.

IN THIS WAY, WE CAN VIEW BOOK's DETAILS.

3. *Finding Book Details:*

- a. Go to home page by Clicking on  button.



The screenshot shows the homepage of the Departmental Library Management System. At the top right is a blue 'DLMS' button. Below it is a large purple button with the text 'Find a Book'. The main content area has a dark blue header with the text 'Department of Computer Science & Engineering' and 'Visvesvaraya National Institute of Technology, Nagpur, India'. On the left, there's a 'Categories' link. On the right, there's a 'Subjects' link and another 'DLMS' button. Below the header is a 'Search' button. Underneath the search bar is a dropdown menu labeled 'Author's Name' with the placeholder 'Enter Author's Name'. To the right of the dropdown is a blue 'Go' button.

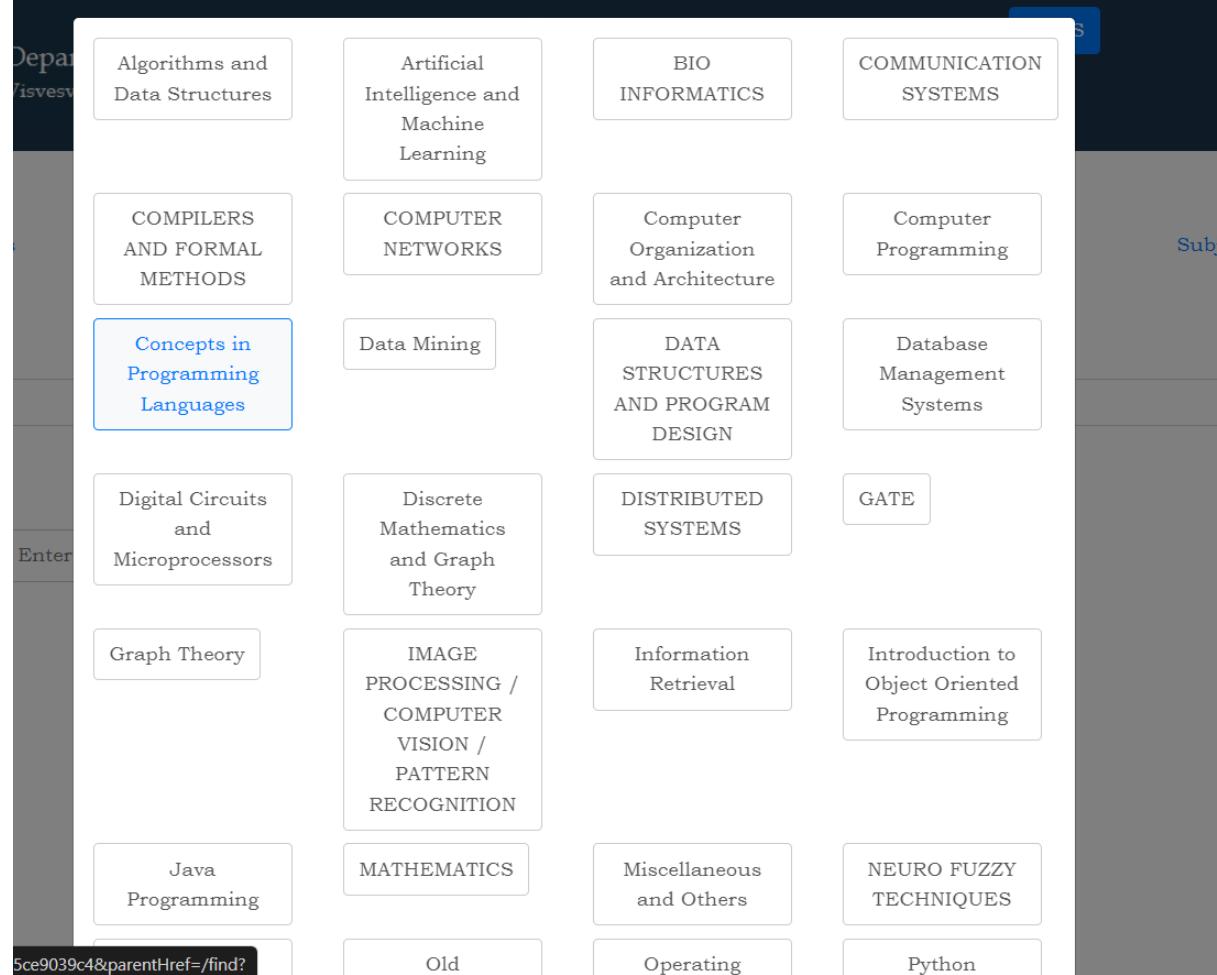
- d. We can search by the following ways:

- i. Categories
- ii. Subjects
- iii. Author's Name
- iv. Book's Name
- v. Publication
- vi. Book's Serial Number
- vii. ISBN Number.

Categories

- i. Hover on  you will get the following grid of categories as follows:

Departmental Library Management System



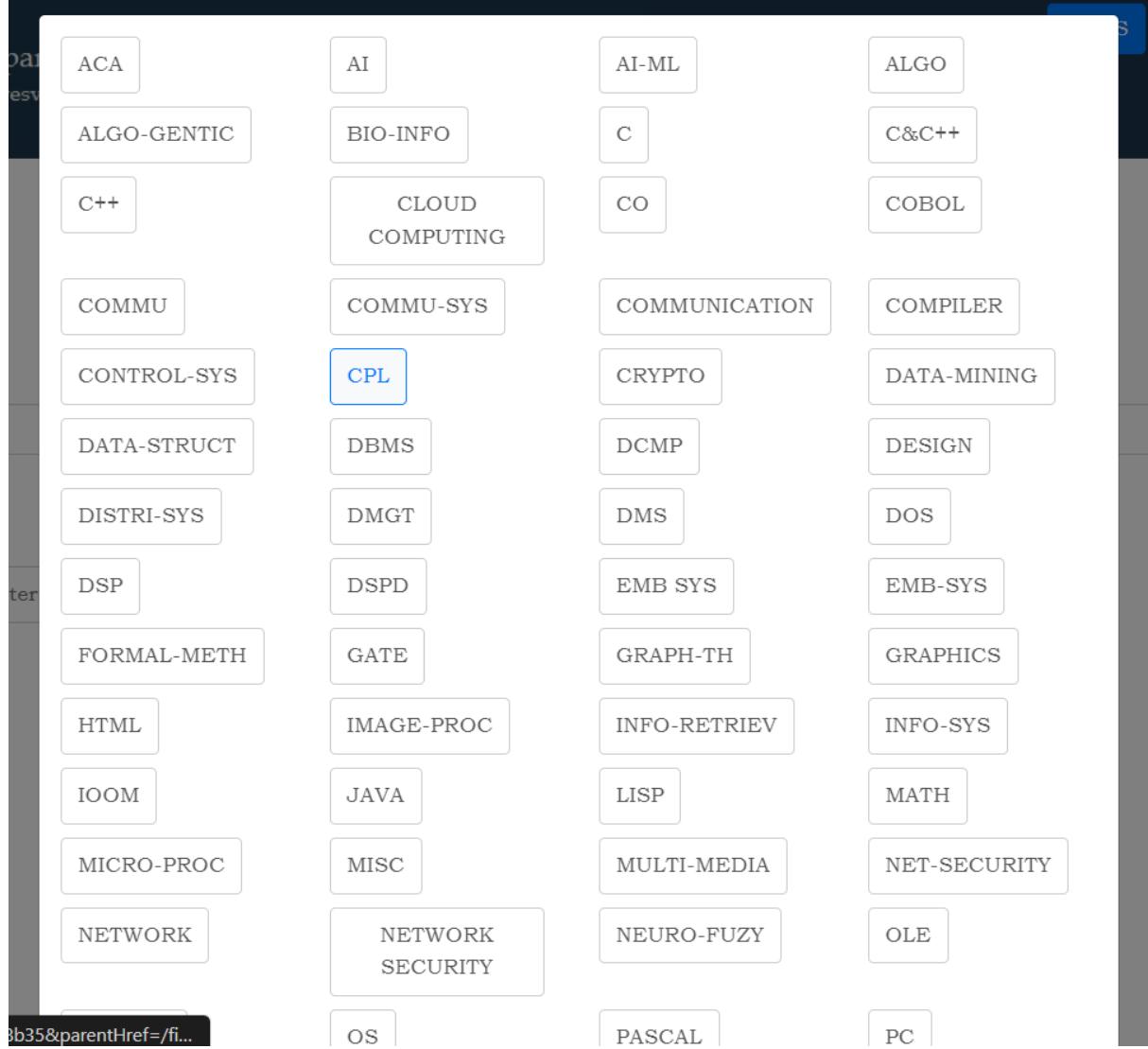
Now suppose we click on **Concepts in Programming Languages** we get the following:

 Department of Computer Science & Engineering Visvesvaraya National Institute of Technology, Nagpur, India					DLMS
Go Back					
38 : Programming Languages: Concept & Constructs Authors: Ravi Sethi Serial: 38	45 : Principles of Programming Languages Authors: R.D.Tennel Serial: 45	47 : Programming Languages: Design & Implementation Authors: Pratt & Zelkowits Serial: 47	145 : Programming Languages: Design & Implementation Authors: T.W.Pratt Serial: 145	244 : Programming Languages Authors: Terrence Pratt Serial: 244	
336 : Programming Languages Authors: Pratt Serial: 336	364 : Programming Languages (4E) Authors: Pratt Serial: 364	375 : Programming Languages (2E) Authors: Pratt Serial: 375	376 : Programming Languages: Design & Implementation Authors: T.W.Pratt Serial: 376	383 : Programming Languages- Design & Implementation Authors: T.W.Pratt Serial: 383	
388 : Programming Languages Authors: T.W.Pratt Serial: 388	407 : Programming Languages Authors: Pratt Serial: 407	439 : Structure & Interpretation of Computer Programs Authors: H. Abelson, G. Sussman Serial: 439	560 : Programming Language Concepts: 3rd Edition Authors: Carlo Ghezzi, Mehdi Jazayeri Serial: 560	561 : The Logic for Programming Authors: Eric C. R. Hehner Serial: 561	
562 : Logics for Computer Science	563 : The Science of Programming	573 : Programming Languages: Design &	639 : Programming Languages		

This is the list of books in the category **Concepts in Programming Languages**. Now suppose clicking on 38: Programming Languages: Concept & Constructs.

- ii. Hover on **Subjects** you will get the following grid of categories as follows:

Departmental Library Management System



Now suppose we click on CPL subject we will get the book as like the following picture:

Subject Name: CPL

Go Back

38 : Programming Languages: Concept & Constructs Authors: Ravi Sethi Serial: 38	45 : Principles of Programming Languages Authors: R.D.Tennel Serial: 45	47 : Programming Languages: Design & Implementation Authors: Pratt & Zelkowitz Serial: 47	145 : Programming Languages: Design & Implementation Authors: T.W.Pratt Serial: 145	244 : Programming Languages Authors: Terrence Pratt Serial: 244
336 : Programming Languages Authors: Pratt Serial: 336	364 : Programming Languages (4E) Authors: Pratt Serial: 364	375 : Programming Languages (2E) Authors: Pratt Serial: 375	376 : Programming Languages: Design & Implementation Authors: T.W.Pratt Serial: 376	383 : Programming Languages- Design & Implementation Authors: T.W.Pratt Serial: 383
388 : Programming Languages Authors: T.W.Pratt Serial: 388	407 : Programming Languages Authors: Pratt Serial: 407	439 : Structure & Interpretation of Computer Programs Authors: H. Abelson, G. Sussman Serial: 439	560 : Programming Language Concepts: 3rd Edition Authors: Carlo Ghezzi, Mehdi Jazayeri Serial: 560	561 : The Logic for Programming Authors: Eric C. R. Hehner Serial: 561

Clicking on 38 : Programming Languages: Concept & Constructs we get the page like as follows:

Departmental Library Management System



Department of Computer Science & Engineering
Visvesvaraya National Institute of Technology, Nagpur, India

DLMS

Subject Name: CPL

[Go Back](#)

38 : Programming Languages: Concept & Constructs Authors: Ravi Sethi Serial: 38	45 : Principles of Programming Languages Authors: R.D.Tennel Serial: 45	47 : Programming Languages: Design & Implementation Authors: Pratt & Zelkowitz Serial: 47	145 : Programming Languages: Design & Implementation Authors: T.W.Pratt Serial: 145	244 : Programming Languages Authors: Terrence Pratt Serial: 244
336 : Programming Languages Authors: Pratt Serial: 336	364 : Programming Languages (4E) Authors: Pratt Serial: 364	375 : Programming Languages (2E) Authors: Pratt Serial: 375	376 : Programming Languages: Design & Implementation Authors: T.W.Pratt Serial: 376	383 : Programming Languages- Design & Implementation Authors: T.W.Pratt Serial: 383
388 : Programming Languages Authors: T.W.Pratt Serial: 388	407 : Programming Languages Authors: Pratt Serial: 407	439 : Structure & Interpretation of Computer Programs Authors: H. Abelson, G. Sussman Serial: 439	560 : Programming Language Concepts: 3rd Edition Authors: Carlo Ghezzi, Mehdi Jazayeri Serial: 560	561 : The Logic for Programming Authors: Eric C. R. Hehner Serial: 561

Programming Languages: Concept & Constructs

Book Number: 38

Authors:

- Ravi Sethi

Subject: CPL

Publication: Pearson Education

ISBN: nan

Status: available

[Issue](#)

[Update](#)

[Details](#)

[Issue By Faculty](#)

- iii. Author's Name
- iv. Book's Name
- v. Publication
- vi. Book's Serial Number
- vii. ISBN Number.

For all of the above

Department of Computer Science & Engineering
Visvesvaraya National Institute of Technology, Nagpur, India

DLMS

Search

Categories

Subjects

Search By:

Author's Name

Enter Author's Name

Go

Click on the list below Search By:

The page like as that of the following appears:

Department of Computer Science & Engineering
Visvesvaraya National Institute of Technology, Nagpur, India

DLMS

Search

Categories

Subjects

Search By:

Author's Name

Author's Name

Book's Name

Publication

Book's Serial Number

ISBN Number

Enter Author's Name

Go

Departmental Library Management System
Select appropriate option, for example selecting Book's Name will give the page as follows:

Search By:

Book's Name

Enter Book's Name:

Enter Book's Name Go

Enter the Book's Name and Click on Go, example if we write algorithm in it like the following

 Department of Computer Science & Engineering
Visvesvaraya National Institute of Technology, Nagpur, India

DLMS

Search

Categories Subjects

Search By:

Book's Name

Enter Book's Name:

algorithm Go

And click on go we get the page like the following

 Department of Computer Science & Engineering Visvesvaraya National Institute of Technology, Nagpur, India					DLMS
8 : Data Structure Algorithms & Applications Authors: Sartaj Sahni Serial: 8	16 : Genetic Algorithms Authors: David Goldberg Serial: 16	39 : Algorithms: The Spirit of Computing (2nd Ed) Authors: David Harel Serial: 39	68 : Computer Algorithms Authors: Horowitz, Sahani Serial: 68	122 : Distributed Algorithms Authors: Nancy Lynch Serial: 122	
133 : Introduction to Algorithms Authors: Cormen, Leiserson, Rivest Serial: 133	165 : Data Structure & Algorithms Authors: Aho & Ullman Serial: 165	193 : Computer Arithmetic Algorithms Authors: Israel Koren Serial: 193	222 : Fundamentals of Algorithms Authors: Brassard, Bratley Serial: 222	236 : Design & Analysis of Algorithms Authors: Dave & Dave Serial: 236	
251 : Data Structure & Algorithms in C++ Authors: Sartaj Sahni Serial: 251	295 : Algorithm Design Authors: Kleinberg, Tardos Serial: 295	305 : Introduction to Algorithms Authors: Cormen Serial: 305	306 : Introduction to Algorithms Authors: Cormen Serial: 306	323 : Randomized Algorithms Authors: Rajeev Motwani Serial: 323	
390 : Fundamentals of Algorithms Authors: S.R. Sathe Serial: 390	391 : Fundamentals of Algorithms Authors: S.R. Sathe Serial: 391	395 : Fundamental Algorithms (Vol. 1) The Art of Comp. Programming Authors: Donald Knuth	396 : Seminumerical Algorithms (Vol. 2) (Art of Comp. Programming) Authors: Donald Knuth	412 : Introduction to Algorithms Authors: Cormen Serial: 412	

And suppose we click on 8 : Data Structure Algorithms & Applications we get a page like the following



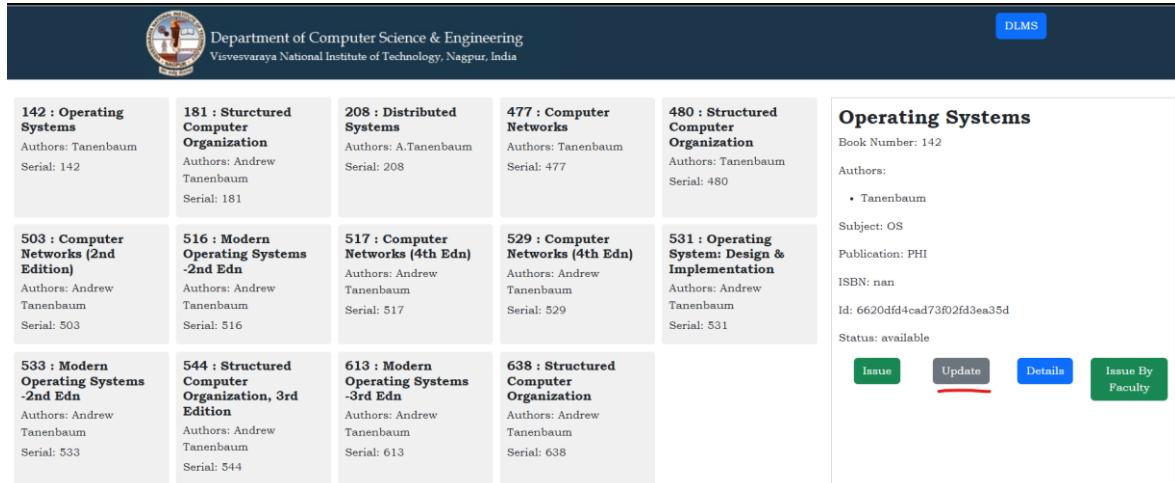
8 : Data Structure Algorithms & Applications Authors: Sartaj Sahni Serial: 8	16 : Genetic Algorithms Authors: David Goldberg Serial: 16	39 : Algorithms: The Spirit of Computing (2nd Ed) Authors: David Harel Serial: 39	68 : Computer Algorithms Authors: Horowitz, Sahani Serial: 68	122 : Distributed Algorithms Authors: Nancy Lynch Serial: 122
133 : Introduction to Algorithms Authors: Cormen, Leiserson, Rivest Serial: 133	165 : Data Structure & Algorithms Authors: Aho & Ullman Serial: 165	193 : Computer Arithmetic Algorithms Authors: Israel Koren Serial: 193	222 : Fundamentals of Algorithms Authors: Brassard, Bratley Serial: 222	236 : Design & Analysis of Algorithms Authors: Dave & Dave Serial: 236
251 : Data Structure & Algorithms in C++ Authors: Sartaj Sahni Serial: 251	295 : Algorithm Design Authors: Kleinberg, Tardos Serial: 295	305 : Introduction to Algorithms Authors: Cormen Serial: 305	306 : Introduction to Algorithms Authors: Cormen Serial: 306	323 : Randomized Algorithms Authors: Rajeeve Motwani Serial: 323
390 : Fundamentals of Algorithms Authors: S.R. Sathe Serial: 390	391 : Fundamentals of Algorithms Authors: S.R. Sathe Serial: 391	395 : Fundamental Algorithms (Vol. 1) The Art of Comp. Programming Authors: Donald Knuth	396 : Seminumerical Algorithms (Vol. 2) (Art of Comp. Programming) Authors: Donald Knuth	412 : Introduction to Algorithms Authors: Cormen Serial: 412
Data Structure Algorithms & Applications Book Number: 8 Authors: • Sartaj Sahni Subject: DATA-STRUCT Publication: McGraw-Hill ISBN: nan Id: 6620df4cad73f02fd3ea2d7 Status: available Issue Update Details Issue By Faculty				

IN THIS WAY, WE CAN FIND ANY BOOK IN THE DEPARTMENTAL LIBRARY MANAGEMENT SYSTEM.

Departmental Library Management System

4. Updating Book Details:

- Go to home page by Clicking on  button.
- Find a book you want to update following the instruction given in Section 3 of Finding Book Details.
- The webpage looks like the following:



The screenshot shows a library management system interface. At the top, there is a header with the logo of Visvesvaraya National Institute of Technology, Nagpur, India, and the text "Department of Computer Science & Engineering". A "DLMS" button is located in the top right corner. Below the header, a grid of book entries is displayed. Each entry contains the book title, author(s), and serial number. To the right of the grid, a detailed view of book number 142 is shown in a sidebar. The sidebar includes fields for Book Number (142), Authors (Tanenbaum), Subject (OS), Publication (PHI), ISBN (nan), and ID (6620df34cad73f02fd3ea35d). It also shows the status as available. At the bottom of the sidebar, there are four buttons: "Issue" (green), "Update" (red, with a red underline), "Details" (blue), and "Issue By Faculty" (green).

142 : Operating Systems Authors: Tanenbaum Serial: 142	181 : Structured Computer Organization Authors: Andrew Tanenbaum Serial: 181	208 : Distributed Systems Authors: A.Tanenbaum Serial: 208	477 : Computer Networks Authors: Tanenbaum Serial: 477	480 : Structured Computer Organization Authors: Tanenbaum Serial: 480
503 : Computer Networks (2nd Edition) Authors: Andrew Tanenbaum Serial: 503	516 : Modern Operating Systems -2nd Edn Authors: Andrew Tanenbaum Serial: 516	517 : Computer Networks (4th Edn) Authors: Andrew Tanenbaum Serial: 517	529 : Computer Networks (4th Edn) Authors: Andrew Tanenbaum Serial: 529	531 : Operating System: Design & Implementation Authors: Andrew Tanenbaum Serial: 531
533 : Modern Operating Systems -2nd Edn Authors: Andrew Tanenbaum Serial: 533	544 : Structured Computer Organization, 3rd Edition Authors: Andrew Tanenbaum Serial: 544	613 : Modern Operating Systems -3rd Edn Authors: Andrew Tanenbaum Serial: 613	638 : Structured Computer Organization Authors: Andrew Tanenbaum Serial: 638	

- So clicking on  gives in the right side these options.
- Select Update from it and click on Update.
- A form opens like the following:

Update Book Information

Book ID:
142

Title:
Operating Systems

To remove author just make the field empty
To add an author click on add author button

Author 1:
Tanenbaum

Add author

Publication:
PHI

ISBN:
nan

Subject:
OS ▾

[Update Book](#)

IN THIS WAY, A BOOK CAN BE UPDATED.

4. STUDENT RELATED FUNCTIONALITIES

i. Inserting a Student Record:

- a. Go to home page by Clicking on  button.
- b. Click on  button in Students Related Functionality.
- c. A page will open which look like the following

Student ID Number: 

Student details

- d. Enter the student id and check if the student is already registered.
- e. For example, I am already registered with ID 25702: hence it will show:

Student ID Number: 

Student is registered.
Issue a Book

Student Id: 25702

- f. Now try for a new ID example 32456 it shows:

Student ID Number: 

Student is not registered.
Issue a Book

Register a Student

Student ID: Student Name:

Enrollment Id: Contact Number:



Student Id: 32456

- g. A form opens for registration, fill the form by taking student ID card and filling the details and student is registered.
- IN THIS WAY, STUDENT REGISTRATION IS DONE.

ii. Viewing students and their details:

- a. Go to home page by Clicking on  button.

- b. Click on  button in Students Related Functionality.
 c. A page will open which look like the following

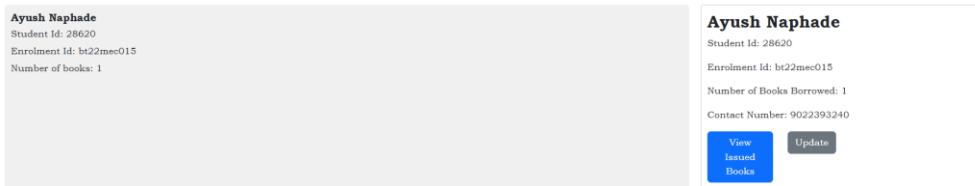


Ayush Naphade	Kaustubh Shivshankar Shejole	Kaustubh Shivshankar Shejole
Student Id: 28620 Enrolment Id: bt22mec015 Number of books: 1	Student Id: 25702 Enrolment Id: BT20CSE112 Number of books: 0	Student Id: 25702 Enrolment Id: BT20CSE112 Number of Books Borrowed: 0 Contact Number: 9637095711
		 

- d. The page shows the students, clicking on which shows the complete details in the right panel.

iii. Viewing Student who have issued books:

- a. Go to home page by Clicking on  button.
 b. Click on **Students with book issued** button in Students Related Functionality.
 c. A page will open which look like the following

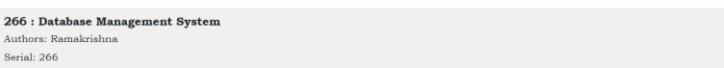


Ayush Naphade	Ayush Naphade
Student Id: 28620 Enrolment Id: bt22mec015 Number of books: 1	Student Id: 28620 Enrolment Id: bt22mec015 Number of Books Borrowed: 1 Contact Number: 9022393240
	 

- e. The page shows the students who have at least one book issued, clicking on which shows the complete details in the right panel.



- f. Clicking on  button shows the details of book like the following:



266 : Database Management System
Authors: Ramakrishna
Serial: 266

IN THIS WAY WE CAN SEE STUDENTS WITH AT LEAST ONE BOOK ISSUED.

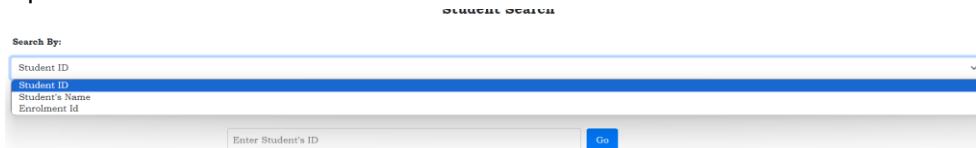
Departmental Library Management System

iv. Finding a student record:

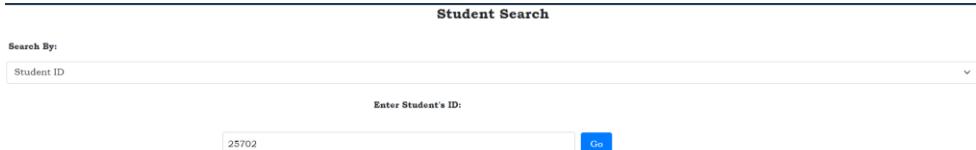
- a. Go to home page by Clicking on **DLMS** button.
- b. Click on **Find a Student** button in Students Related Functionality.
- c. A page will open which look like the following



d. Options to search are:



- Student ID, Enrolment Number and Student's Name.
- e. Suppose we search by Student ID as 25702, it looks like this:



Click on Go gives matching student record:

Kaustubh Shivshankar Shejole Student Id: 25702 Enrolment Id: BT20CSE112 Number of books: 0	Kaustubh Shivshankar Shejole Student Id: 25702 Enrolment Id: BT20CSE112 Number of Books Borrowed: 0 Contact Number: 9637095711 View Issued Books Update
--	---

v. Updating a student record:

- a. Go to home page by Clicking on **DLMS** button.
- b. Find a student record you want to update following Section iv. Finding a student record.
- c. A page look like this:

The screenshot shows two side-by-side panels for a student record. The left panel displays student details: Name - Kaustubh Shivshankar Shejole, Student Id: 25702, Enrolment Id: BT20CSE112, and Number of books: 0. It has two buttons: 'View Issued Books' (blue) and 'Update' (grey). The right panel shows the same information with the 'Update' button highlighted by a red rectangle. Below these panels is a large, faint watermark-like text: 'Digitized by srujanika@gmail.com'.

- d. Click on Update opens a look like the following:

The screenshot shows a form titled 'Update Student Information'. It contains five input fields with placeholder text: 'Student ID:' (25702), 'Student Name:' (Kaustubh Shivshankar S), 'Enrolment Id:' (BT20CSE112), 'Contact number:' (9637095711), and 'Number of books borrowed:' (0). At the bottom, there is a blue button labeled 'Update Student Record'.

Update the required fields.

In this way, updatations can be done.

Departmental Library Management System

5. ISSUING A BOOK BY A STUDENT

- a. First ensure that the student is registered on the system.
- b. Then find a book record the student want to issue. It will show page like the following:

Click on the book you want to issue:

The screenshot shows a grid of book records. Book number 371, titled 'Fundamentals of the Theory of Computation', is highlighted in yellow. Other books listed include 131, 181, 371, 488, 503, 516, 517, 529, 531, 533, 544, 613, and 638. Each record includes details like title, authors, and serial number. On the right side, there is a summary for book 371 with fields for authors, subject, publication, ISBN, and ID, along with status indicators and buttons for Issue, Update, Details, and Issue By Faculty.

Example above we clicked on book 371.

Issue

- c. Then click on **Issue**, a book will open like the following:

Issue a Book

Student ID Number: Check Registration

Student details

- d. Put student details i.e., ID Number and click check registration.
- e. Example putting 25702 it shows:

Student ID Number: Check Registration

Student is registered.

Student ID: 25702

Name: Kaustubh Shivshankar Shejole

Enrollment Number: BT20CSE112

Contact Number: 9637095711

Number of Books Borrowed: 0

Book's Serial Number : 371

Title: Fundamentals of the Theory of Computation

Authors: Raymond Greenlaw, H.J. Hoover

Publication: Morgan Kaufmann

Subject: TCOM

[Issue this book](#)

Student Id: 25702

Issue this book

- f. Check the details and click on **Issue this book** and the book will be issued.
- g. A confirmation like the following will appear:

The confirmation message is displayed on a dark blue background. It includes the university logo, the text 'Department of Computer Science & Engineering Visvesvaraya National Institute of Technology, Nagpur, India', and a 'DLMS' button. Below the main text, it says 'Book Issued.'

IN THIS WAY, A BOOK IS ISSUED.

6. RETURNING A BOOK BY A STUDENT

- a. Find student details by following the procedure given previously.
- b. Example, finding the student by ID Number say 25702 will give page like the following:

Click on the required student:

Kaustubh Shivshankar Shejole Student Id: 25702 Enrolment Id: BT20CSE112 Number of books: 1	Kaustubh Shivshankar Shejole Student Id: 25702 Enrolment Id: BT20CSE112 Number of Books Borrowed: 1 Contact Number: 9637095711 View Issued Books Update
--	---

View Issued Books

- c. Now click on **View Issued Books** and a page will appear like the following:
- d. The page will show details of books issued by the student, click on the book the student is returning:

371 : Fundamentals of the Theory of Computation Authors: Raymond Greenlaw, H.J. Hoover Serial: 371	Fundamentals of the Theory of Computation Book Number: 371 Authors: <ul style="list-style-type: none">• Raymond Greenlaw• H.J. Hoover Subject: TCOM Publication: Morgan Kaufmann ISBN: nan Issue Return Book Details
---	---

Return Book

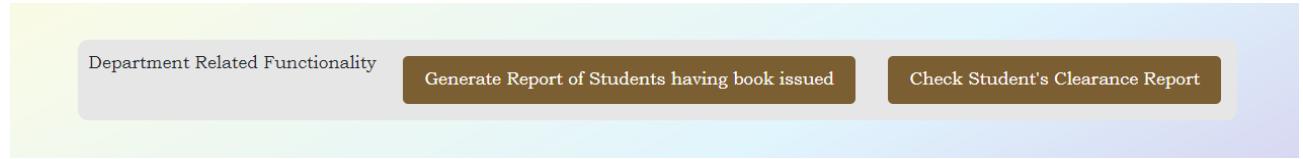
- e. In the right panel, click on **Return Book** option and the book would be returned after clicking again OK to return a book.

Book Returned

IN THIS WAY, A BOOK IS RETURNED.

Departmental Library Management System
7. DEPARTMENT RELATED FUNCTIONALITIES

On home we can observe:



- a. Generating a report of students who have books issued:

Click on

Generate Report of Students having book issued

It will show a page like the following:

The screenshot shows a report titled "Department of Computer Science and Engineering" with a subtitle "Report generated at Sun Jul 14 2024 12:50:47 GMT+0530 (India Standard Time)
List of Students having issued books, Date: 14/7/2024 (dd-mm-yyyy)".

Sr. No.	Student Id	Student Name	Enrolment Number	Number of Books	Contact Number	Book Serial Number	Book Name	Book Issuing Date (dd-mm-yyyy)	Book Issuing Time
1	28620	Ayush Naphade	bt22mec015	1	9022393240	266	Database Management System	09/05/2024	06:46:55 p.m.

These students are requested to return the books after the end of this semester

Office Staff HoD CSE Department

Print Div

Click on

to either print it or save it as pdf.

- b. Check Student's clearance report:

This is very important functionality.

Click on **Check Student's Clearance Report**, a page like the following will open:

Student ID Number:

Student details

Put ID Number and click on check clearance, if all book are returned it show like the following:

Student ID Number:

Student is registered.

Student ID: 25702

Name: Kaustubh Shivshankar Shejole

Enrollment Number: BT20CSE112

Contact Number: 9637095711

Number of Books Borrowed: 0

Cleared

Student Id: 25702

Otherwise it show like the following:

Student ID Number:

28620

Check Clearance

Student is registered.

Student ID: 28620

Name: Ayush Naphade

Enrollment Number: bt22mec015

Contact Number: 9022393240

Number of Books Borrowed: 1

Not Cleared, will not get clearance

Student Id: 28620

Showing the number of books borrowed.

IN THIS WAY, WE FINISH DEPARTMENT RELATED FUNCTIONALITIES.

8. INSERTING NEW CATEGORIES AND SUBJECTS

a. Inserting a category:

- i. Go to home page.
- ii. Observe this section:

Category and Subject Insertion:

Insert Category
Insert Subject

- iii. Click on **Insert Category**
- iv. Page appears like the following:

Department of Computer Science & Engineering
Vivekananda National Institute of Technology, Nagpur, India
DLMS

Insert a new Category

Category Name:

Please Select appropriate subjects:

ACA	AI	AI-ML	ALGO	ALGO-GENETIC	BIO-INFO	C	C&C++	C++	CLOUD COMPUTING	CO	COBOL
COMMU	COMMU-SYS	COMMUNICATION	COMPILER	CONTROL-SYS	CPL	CRYPTO	DATA-MINING	DATA-STRUCT	DBMS	DCMP	DESIGN
DISTRI-SYS	DMGT	DMS	DOS	DSP	DSPD	EMB SYS	EMB-SYS	FORMAL-METH	GATE	GRAPH-TH	GRAPHICS
HTML	IMAGE-PROC	INFO-RETRIEV	INFO-SYS	IOOM	JAVA	LISP	MATH	MICRO-PROC	MISC	MULTI-MEDIA	NET-SECURITY
NETWORK	NETWORK SECURITY	NEURO-FUZY	OLE	ORACLE	OS	PASCAL	PC	PEARL	PHP	PHY	PR
PROGRAM	PYTHON	RTS	SIO-SYS	SNS	SOFT-COMP	SOFT-ENGG	SOFTWARE	SOLARIS	SYS-PRO	TCOM	TOC
UNIX	VB	VC	WEB-TECH	WINDOWS	XML						

Insert

- v. Put a category name and select appropriate subjects that are under that category.
- vi. Click on **Insert**.

IN THIS WAY, CATEGORY IS INSERTED.

b. Inserting a subject:

- i. Go to Home page.
- ii. Click on **Insert Subject**.
- iii. Page appears like the following:

Department of Computer Science & Engineering
Vivekananda National Institute of Technology, Nagpur, India
DLMS

Insert a new Subject

Subject Name:

Please Select appropriate categories:

Algorithms and Data Structures	Artificial Intelligence and Machine Learning	BIO INFORMATICS	COMMUNICATION SYSTEMS	COMPILERS AND FORMAL METHODS	COMPUTER NETWORKS	Computer Organization and Architecture	Computer Programming	Concepts in Programming Languages	DATA STRUCTURES AND PROGRAM DESIGN	DISTRIBUTED SYSTEMS	Data Mining
Database Management Systems	Digital Circuits and Microprocessors	Discrete Mathematics and Graph Theory	GATE	Graph Theory	IMAGE PROCESSING / COMPUTER VISION / PATTERN RECOGNITION	Information Retrieval	Introduction to Object Oriented Programming	Java Programming	MATHEMATICS	Miscellaneous and Others	NEURO FUZZY TECHNIQUES
OLD OPERATING SYSTEMS	Old Programming Languages	Operating Systems	Python Programming	SYSTEM, CRYPTOGRAPHY AND NETWORK SECURITY	Software Engineering and Development	Theory of Computation	WEB PROGRAMMING				

Insert

- iv. Write subject name and select appropriate categories.
- v. Click on **Insert**.

IN THIS WAY, SUBJECT IS INSERTED.

View Subjects and Categories:

[View Categories](#)

[View Subjects](#)

c. View Categories:

- i. Go to Home page.
- ii. Click on **View Categories**.
- iii. A page will open looking like:

Department of Computer Science & Engineering
Visvesvaraya National Institute of Technology, Nagpur, India

Algorithms and Data Structures Subjects: <ul style="list-style-type: none">• ALGO	Artificial Intelligence and Machine Learning Subjects: <ul style="list-style-type: none">• AI• NEURO-FUZY• AI-ML• ALGO-GENETIC	BIO INFORMATICS Subjects: <ul style="list-style-type: none">• BIO-INFO	COMMUNICATION SYSTEMS Subjects: <ul style="list-style-type: none">• COMMU• COMMU-SYS• COMMUNICATION
COMPILERS AND FORMAL METHODS Subjects: <ul style="list-style-type: none">• COMPILER• FORMAL-METH	COMPUTER NETWORKS Subjects: <ul style="list-style-type: none">• NETWORK	Computer Organization and Architecture Subjects: <ul style="list-style-type: none">• CO	Computer Programming Subjects: <ul style="list-style-type: none">• C• CPL• PROGRAM• C&C++
Concepts in	DATA STRUCTURES	DISTRIBUTED	Data Mining

- iv. Click on a Category to view details like the following:

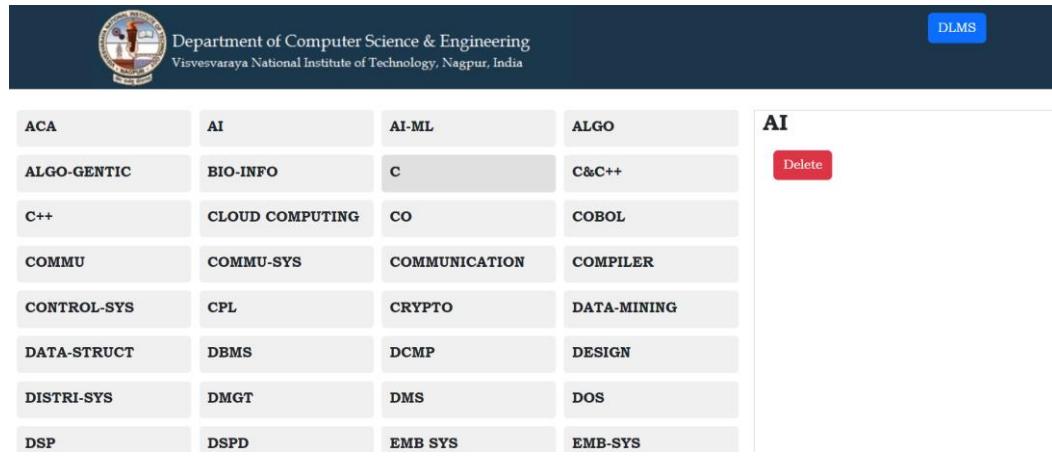
Department of Computer Science & Engineering
Visvesvaraya National Institute of Technology, Nagpur, India

Algorithms and Data Structures Subjects: <ul style="list-style-type: none">• ALGO	Artificial Intelligence and Machine Learning Subjects: <ul style="list-style-type: none">• AI• NEURO-FUZY• AI-ML• ALGO-GENETIC	BIO INFORMATICS Subjects: <ul style="list-style-type: none">• BIO-INFO	COMMUNICATION SYSTEMS Subjects: <ul style="list-style-type: none">• COMMU• COMMU-SYS• COMMUNICATION	COMMUNICATION SYSTEMS Subjects: COMMU COMMU-SYS COMMUNICATION
COMPILERS AND FORMAL METHODS Subjects: <ul style="list-style-type: none">• COMPILER• FORMAL-METH	COMPUTER NETWORKS Subjects: <ul style="list-style-type: none">• NETWORK	Computer Organization and Architecture Subjects: <ul style="list-style-type: none">• CO	Computer Programming Subjects: <ul style="list-style-type: none">• C• CPL• PROGRAM• C&C++	Update Delete

It shows **update** and **delete** options.

d. View subjects:

- i. Go to Home page.
- ii. Click on **View Subjects**.
- iii. A page will open looking like:



The screenshot shows a table with a header row and eight data rows. The header row contains four columns: ACA, AI, AI-ML, and ALGO. The data rows contain subject names grouped by category. A red 'Delete' button is located in the top right corner of the table area.

ACA	AI	AI-ML	ALGO
ALGO-GENTIC	BIO-INFO	C	C&C++
C++	CLOUD COMPUTING	CO	COBOL
COMMU	COMMU-SYS	COMMUNICATION	COMPILER
CONTROL-SYS	CPL	CRYPTO	DATA-MINING
DATA-STRUCT	DBMS	DCMP	DESIGN
DISTRI-SYS	DMGT	DMS	DOS
DSP	DSPD	EMB SYS	EMB-SYS

- iv. It shows list of subjects clicking on which we have only **delete** option.

9. UPDATING CATEGORIES:

- i. Go to Home page.
- ii. Click on **View Categories**.
- iii. A page will open looking like:

Algorithms and Data Structures Subjects: <ul style="list-style-type: none">• ALGO	Artificial Intelligence and Machine Learning Subjects: <ul style="list-style-type: none">• AI• NEURO-FUZY• AI-ML• ALGO-GENTIC	BIO INFORMATICS Subjects: <ul style="list-style-type: none">• BIO-INFO	COMMUNICATION SYSTEMS Subjects: <ul style="list-style-type: none">• COMMU• COMMU-SYS• COMMUNICATION
COMPILERS AND FORMAL METHODS Subjects: <ul style="list-style-type: none">• COMPILER• FORMAL-METH	COMPUTER NETWORKS Subjects: <ul style="list-style-type: none">• NETWORK	Computer Organization and Architecture Subjects: <ul style="list-style-type: none">• CO	Computer Programming Subjects: <ul style="list-style-type: none">• C• CPL• PROGRAM• C&C++
Concepts in	DATA STRUCTURES	DISTRIBUTED	Data Mining

- iv. Find a category to update and click on it to view details like the following:

Algorithms and Data Structures Subjects: <ul style="list-style-type: none">• ALGO	Artificial Intelligence and Machine Learning Subjects: <ul style="list-style-type: none">• AI• NEURO-FUZY• AI-ML• ALGO-GENTIC	BIO INFORMATICS Subjects: <ul style="list-style-type: none">• BIO-INFO	COMMUNICATION SYSTEMS Subjects: <ul style="list-style-type: none">• COMMU• COMMU-SYS• COMMUNICATION	COMMUNICATION SYSTEMS Subjects: <ul style="list-style-type: none">COMMUCOMMU-SYSCOMMUNICATION
COMPILERS AND FORMAL METHODS Subjects: <ul style="list-style-type: none">• COMPILER• FORMAL-METH	COMPUTER NETWORKS Subjects: <ul style="list-style-type: none">• NETWORK	Computer Organization and Architecture Subjects: <ul style="list-style-type: none">• CO	Computer Programming Subjects: <ul style="list-style-type: none">• C• CPL• PROGRAM• C&C++	Update Delete
Concepts in	DATA STRUCTURES	DISTRIBUTED	Data Mining	

It shows **update** and **delete** options.

- v. Click on update button, page opens like the following:

Insert a new Category

Category Name:

Please Select appropriate subjects:

COMMU	COMMU-SYS	COMMUNICATION	ACA	AI	AI-ML	ALGO	ALGO-GENTIC	BIO-INFO	C	C/C++	C++	CLOUD COMPUTING	CO	COBOL	COMPILER
CONTROL-SYS	CPL	CRYPTO	DATA-MINING	DATA-STRUCT	DBMS	DCMP	DESIGN	DISTR-SYS	DMOT	DMS	DOS	DSP	DSPD	EMB-SYS	EMB-SYS
FORMAL-METH	GATE	GRAPH-THE	GRAPHICS	HTML	IMAGE-PROC	INFO-RETRIEV	INFO-SYS	ICOM	JAVA	LISP	MATH	MICRO-PROC	MISC	MULTI-MEDIA	NET-SECURITY
NETWORK	NETWORK SECURITY	NEURO-FUZY	OLE	ORACLE	OS	PASCAL	PC	PEARL	PHP	PHY	PR	PROGRAM	PYTHON	RTS	SIG-SYS
SNS	SOFT-COMP	SOFT-ENGG	SOFTWARE	SOLARIS	SYS-PRO	TCOM	TOC	UNIX	VB	VC	WEB-TECH	WINDOWS	XML		

[Update the Category](#)

[Clear all](#)

[Select all](#)

Check or uncheck subjects and update appropriately by clicking on Update the Category.

IN THIS WAY, CATEGORY CAN BE UPDATED.

Departmental Library Management System
10. BACKUP FUNCTIONS

Backup Functions:

[Backup Books to csv](#)

[Backup Books to json](#)

[Backup Subjects and Categories](#)

[Backup Students](#)

These are various backup functions, it is advisable to backup once a week.

Departmental Library Management System
11. FACULTY RELATED FUNCTIONALITIES

Faculty Related Functionality:

Report of Faculty Issuing books

Insert a faculty record

View Faculties

Faculties with book issued

Find Faculty Details

For maintaining difference between faculty and student it is kept, the functionalities are similar to that of student. Faculty has to be registered and given unique id, then issuing can be done.

IN THIS WAY, WE END THIS MANUAL.

IN CASE OF ANY PROBLEM, PLEASE CONTACT ME:

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THANK YOU