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# **LIBRARY MANAGEMENT SYSTEM**

## ▪ **INTRODUCTION**

*The library management system is basically a database based project done with help of python language. this project is very usefull for the librarians to keep a count on what project they have and how much they sold or issued books. This project is multifield project ,so that it can be modified for various purposes.*

## ▪ **OBJECTIVES OF THE PROJECT**

*The objective of this project is to let the students apply the programming knowledge into a real- world situation/problem and exposed the students how programming skills helps in developing a good software.*

- *Write programs utilizing modern software tools.*
- *Apply object oriented programming principles effectively when developing small to medium sized projects.*
- *Write effective procedural code to solve small to medium sized problems.*
- *Students will demonstrate a breadth of knowledge in informatics practises , as exemplified in the areas of systems, theory and software development.*
- *Students will demonstrate ability to conduct a research or applied Informatics Practises project, requiring writing and presentation skills which exemplify scholarly style in informatics practises.*

- **PROPOSED SYSTEM:**

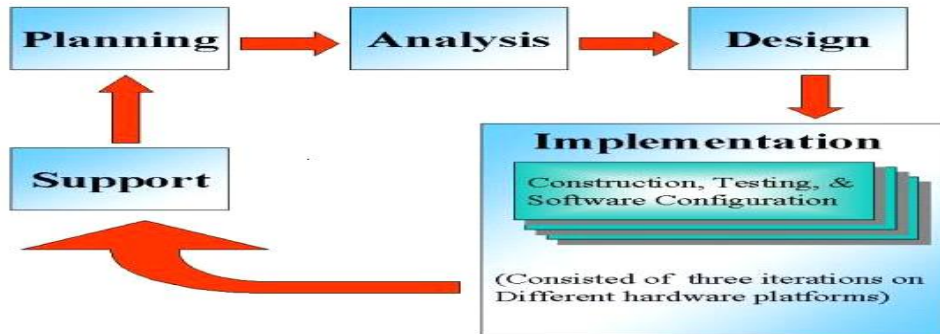
*Today one cannot afford to rely on the fallible human beings of be really wants to stand against today's merciless competition where not to wise saying "to err is human" no longer valid, it's outdated to rationalize your mistake. So, to keep pace with time, to bring about the best result without malfunctioning and greater efficiency so to replace the unending heaps of files with a much sophisticated hard disk of the computer.*

*One has to use the data management software. Software has been an ascent in atomization various organisations. Many software products working are now in markets, which have helped in making the organizations work easier and efficiently. Data management initially had to maintain a lot of ledgers and a lot of paper work has to be done but now software product on this organization has made their work faster and easier. Now only this software has to be loaded on the computer and work can be done.*

*This prevents a lot of time and money. The work becomes fully automated and any information regarding the organization can be obtained by clicking the button. Moreover, now it's an age of computers of and automating such an organization gives the better look.*

## ❖ SYSTEM DEVELOPMENT LIFE CYCLE (SDLC):

**The System Development Life Cycle  
as Used in the Construction of the Server Appliance**



*The systems development life cycle is a project management technique that divides complex projects into smaller, more easily managed segments or phases. Segmenting projects allows managers to verify the successful completion of project phases before allocating resources to subsequent phases.*

*Software development projects typically include initiation, planning, design, development, testing, implementation, and maintenance phases. However, the phases may be divided differently depending on the organization involved.*

*For example, initial project activities might be designated as request, requirements-definition, and planning phases, or initiation, concept-development, and planning phases. End users of the system under development should be involved in reviewing the output of each phase to ensure the system is being built to deliver the needed functionality*

### **PHASES OF SYSTEM DEVELOPMENT LIFE CYCLE**

#### ▪ **INITIATION PHASE**

*The Initiation Phase begins when a business sponsor identifies a need or an opportunity.*

*The purpose of the Initiation Phase is to:*

- *Identify and validate an opportunity to improve business accomplishments of the organization or a deficiency related to a business need.*
- *Identify significant assumptions and constraints on solutions to that need.*
- *Recommend the exploration of alternative concepts and methods to satisfy the need including questioning the need for technology, i.e., will a change in the business process offer a solution?*
- *Assure executive business and executive technical sponsorship. The Sponsor designates a Project Manager and the business need is documented in a Concept Proposal. The Concept Proposal includes information about the business process and the relationship to the Agency/Organization.*
- *Infrastructure and the Strategic Plan. A successful Concept Proposal results in a Project Management Charter which outlines the authority of the project manager to begin the project.*
- **SYSTEM CONCEPT DEVELOPMENT PHASE:**

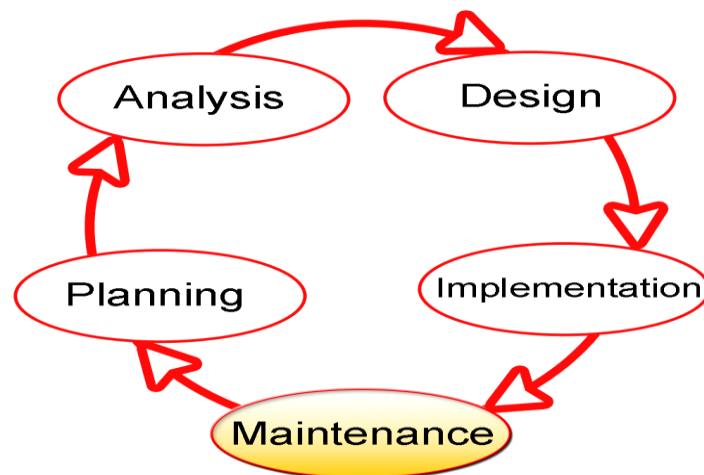
*The System Concept Development Phase begins after a business need or opportunity is validated by the Agency/Organization Program Leadership and the Agency/Organization CIO.*

*The purpose of the System Concept Development Phase is to:*

- *Determine the feasibility and appropriateness of the alternatives.*
- *Identify system interfaces.*
- *Identify basic functional and data requirements to satisfy the business need.*
- *Establish system boundaries; identify goals, objectives, critical success factors, and performance measures.*
- *Evaluate costs and benefits of alternative approaches to satisfy the basic functional requirements*
- *Assess project risks*

- *Identify and initiate risk mitigation actions, and Develop high-level technical architecture, process models, data models, and a concept of operations. This phase explores potential technical solutions within the context of the business need.*
- *It may include several trade-off decisions such as the decision to use COTS software products as opposed to developing custom software or reusing software components, or the decision to use an incremental delivery versus a complete, onetime deployment.*
- *Construction of executable prototypes is encouraged to evaluate technology to support the business process. The System Boundary Document serves as an important reference document to support the Information Technology Project Request (ITPR) process.*
- *The ITPR must be approved by the State CIO before the project can move forward*

❖ **PICTORIAL REPRESENTATION OF SDLC:**



▪ **PLANNING PHASE:**

*The planning phase is the most critical step in completing development, acquisition, and maintenance projects. Careful planning, particularly in the early stages of*

*a project, is necessary to coordinate activities and manage project risks effectively. The depth and formality of project plans should be commensurate with the characteristics and risks of a given project. Project plans refine the information gathered during the initiation phase by further identifying the specific activities and resources required to complete a project.*

*A critical part of a project manager's job is to coordinate discussions between user, audit, security, design, development, and network personnel to identify and document as many functional, security, and network requirements as possible. During this phase, a plan is developed that documents the approach to be used and includes a discussion of methods, tools, tasks, resources, project schedules, and user input. Personnel assignments, costs, project schedule, and target dates are established.*

*A Project Management Plan is created with components related to acquisition planning, configuration management planning, quality assurance planning, concept of operations, system security, verification and validation, and systems engineering management planning.*

▪ **REQUIREMENTS ANALYSIS PHASE:**

*This phase formally defines the detailed functional user requirements using high-level requirements identified in the Initiation, System Concept, and Planning phases. It also delineates the requirements in terms of data, system performance, security, and maintainability requirements for the system. The requirements are defined in this phase to a level of detail sufficient for systems design to proceed. They need to be measurable, testable, and relate to the business need or opportunity identified in the Initiation Phase. The requirements that will be used to determine acceptance of the system are captured in the Test and Evaluation Master Plan.*

✓ ***The purposes of this phase are to:***

- *Further define and refine the functional and data requirements and document them in the Requirements Document,*

- *Complete business process reengineering of the functions to be supported (i.e., verify what information drives the business process, what information is generated, who generates it, where does the information go, and who processes it),*
  - *Develop detailed data and process models (system inputs, outputs, and the process.*
  - *Develop the test and evaluation requirements that will be used to determine acceptable system performance.*
- **DESIGN PHASE:**

*The design phase involves converting the informational, functional, and network requirements identified during the initiation and planning phases into unified design specifications that developers use to script programs during the development phase. Program designs are constructed in various ways. Using a top-down approach, designers first identify and link major program components and interfaces, then expand design layouts as they identify and link smaller subsystems and connections. Using a bottom-up approach, designers first identify and link minor program components and interfaces, then expand design layouts as they identify and link larger systems and connections. Contemporary design techniques often use prototyping tools that build mock-up designs of items such as application screens, database layouts, and system architectures. End users, designers, developers, database managers, and network administrators should review and refine the prototyped designs in an iterative process until they agree on an acceptable design. Audit, security, and quality assurance personnel should be involved in the review and approval process. During this phase, the system is designed to satisfy the functional requirements identified in the previous phase. Since problems in the design phase could be very expensive to solve in the later stage of the software development, a variety of elements are considered in the design to mitigate risk.*

✓ ***These include:***

- *Identifying potential risks and defining mitigating design features.*
- *Performing a security risk assessment.*



- *Developing a conversion plan to migrate current data to the new system.*
- *Determining the operating environment.*
- *Defining major subsystems and their inputs and outputs.*
- *Allocating processes to resources.*
- *Preparing detailed logic specifications for each software module. The result is a draft System Design Document which captures the preliminary design for the system.*
- *Everything requiring user input or approval is documented and reviewed by the user. Once these documents have been approved by the Agency CIO and Business Sponsor, the final System Design Document is created to serve as the Critical/Detailed Design for the system.*
- *This document receives a rigorous review by Agency technical and functional representatives to ensure that it satisfies the business requirements. Concurrent with the development of the system design, the Agency Project Manager begins development of the Implementation Plan, Operations and Maintenance Manual, and the Training Plan.*

▪ **DEVELOPMENT PHASE:**

*The development phase involves converting design specifications into executable programs. Effective development standards include requirements that programmers and other project participants discuss design specifications before programming begins. The procedures help ensure programmers clearly understand program designs and functional requirements. Programmers use various techniques to develop computer programs. The large transaction oriented programs associated with financial institutions have traditionally been developed using procedural programming techniques. Procedural programming involves the line-by-line scripting of logical instructions that are combined to form a program. Effective completion of the previous stages is a key factor in the success of the Development phase.*

✓ ***The Development phase consists of:***

- *Translating the detailed requirements and design into system components.*
- *Testing individual elements (units) for usability.*
- *Preparing for integration and testing of the IT system.*

▪ **INTEGRATION AND TEST PHASE:**

- *Subsystem integration, system, security, and user acceptance testing is conducted during the integration and test phase. The user, with those responsible for quality assurance, validates that the functional requirements, as defined in the functional requirements document, are satisfied by the developed or modified system. OIT Security staff assess the system security and issue a security certification and accreditation prior to installation/implementation.*

▪ **Multiple levels of testing are performed, including:**

- *Testing at the development facility by the contractor and possibly supported by end users*
- *Testing as a deployed system with end users working together with contract personnel*
- *Operational testing by the end user alone performing all functions. Requirements are traced throughout testing, a final Independent Verification & Validation evaluation is performed and all documentation is reviewed and accepted prior to acceptance of the system.*

▪ **IMPLEMENTATION PHASE:**

*This phase is initiated after the system has been tested and accepted by the user. In this phase, the system is installed to support the intended business functions. System performance is compared to performance objectives established during the planning phase. Implementation includes user notification, user training, installation of hardware, installation of software onto production computers, and integration of the system into daily work processes. This phase continues until the system is operating in production in accordance with the defined user requirements.*

▪ **OPERATIONS AND MAINTENANCE PHASE:**

*The system operation is ongoing. The system is monitored for continued performance in accordance with user requirements and needed system modifications are incorporated. Operations continue as long as the system can be effectively adapted to respond to the organization's needs. When modifications or changes are identified, the system may reenter the planning phase.*

▪ **The purpose of this phase is to:**

- *Operate, maintain, and enhance the system.*
- *Certify that the system can process sensitive information.*
- *Conduct periodic assessments of the system to ensure the functional requirements continue to be satisfied.*
- *Determine when the system needs to be modernized, replaced, or retired.*

➤ **BOOK AVAILABLE IN LIBRARY:**

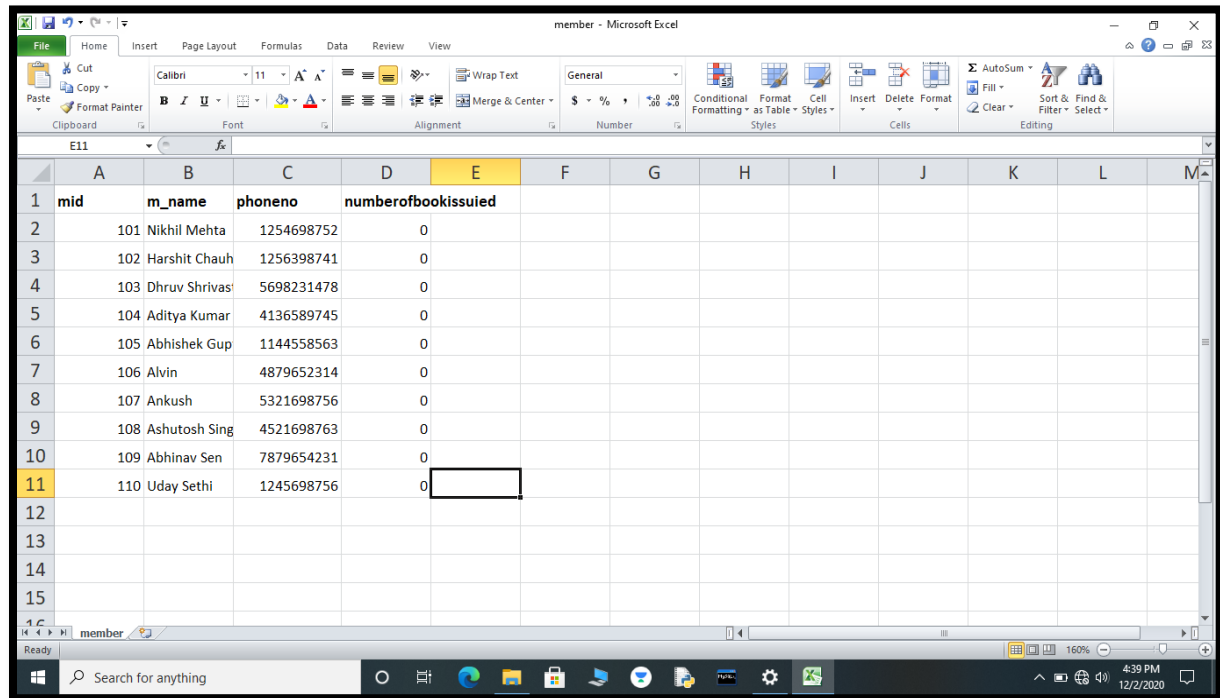
➤ *BOOKS ISSUED BY MEMBERS:*

The screenshot displays the Microsoft Excel interface with a spreadsheet titled "issuebooks". The ribbon at the top includes tabs for File, Home, Insert, Page Layout, Formulas, Data, Review, and View. The "Home" tab is active, showing options for Font, Alignment, Number, Styles, Cells, and Editing.

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	<b>book_name</b>	<b>m_name</b>	<b>date_of_issue</b>	<b>numberof</b>	<b>date_of_return</b>								
2	Advanced Harshit Ch	11/22/2020	1										
3	Essential k Dhruv Shr	11/19/2020	1										
4	New Simp Aditya Kur	11/24/2020	2										
5	Fundamer Abhishek	11/23/2020	3										
6	R.D.SHARI Ankush	11/21/2020	1										
7	Algebra C Ashutosh	11/24/2020	2										
8	R.S. Agraw Abhinav S	11/22/2020	1										
9	S. Chand Uday Seth	11/27/2020	1										
10	Modern A Dhruv Shr	11/20/2020	1										
11													
12													
13													
14													
15													
16													
17													

The status bar at the bottom shows the file name "Issuebooks", a zoom level of 150%, and the date/time "5:43 PM 12/2/2020".

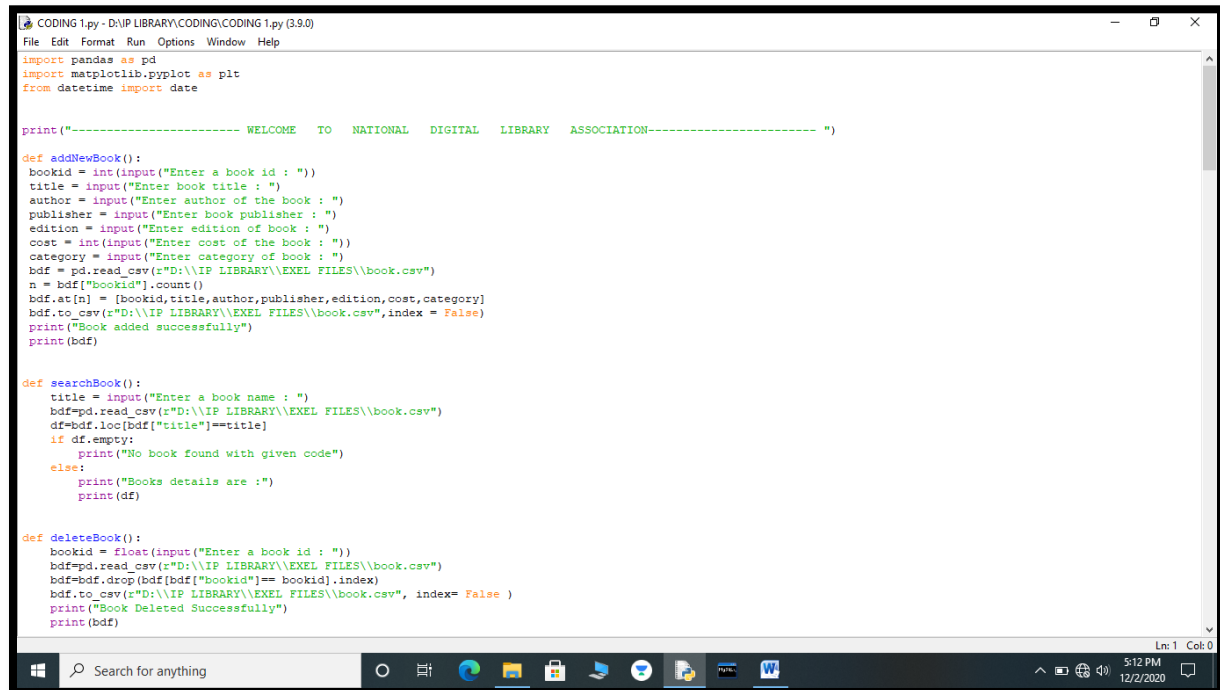
## ➤ MEMBERS OF LIBRARY:



The screenshot shows a Microsoft Excel spreadsheet titled 'member'. The table contains 11 rows of data, with the first row as the header. The columns are labeled: 'mid', 'm\_name', 'phoneno', and 'numberofbookissued'. The data rows list members from mid 101 to 110, including names like Nikhil Mehta, Harshit Chauhan, Dhruv Shrivastava, Aditya Kumar, Abhishek Gupta, Alvin, Ankush, Ashutosh Singh, Abhinav Sen, and Uday Sethi, along with their phone numbers and the number of books issued (all 0).

	A	B	C	D	E	F	G	H	I	J	K	L	M
	mid	m_name	phoneno	numberofbookissued									
1													
2		101 Nikhil Mehta	1254698752	0									
3		102 Harshit Chauhan	1256398741	0									
4		103 Dhruv Shrivastava	5698231478	0									
5		104 Aditya Kumar	4136589745	0									
6		105 Abhishek Gupta	1144558563	0									
7		106 Alvin	4879652314	0									
8		107 Ankush	5321698756	0									
9		108 Ashutosh Singh	4521698763	0									
10		109 Abhinav Sen	7879654231	0									
11		110 Uday Sethi	1245698756	0									
12													
13													
14													
15													

## SOURCE CODE:



The screenshot shows a Python script named 'CODING 1.py' running in a terminal window. The script uses pandas and matplotlib libraries. It includes functions for adding, searching, and deleting books from a library. The script reads data from a CSV file named 'book.csv' and writes back to it. The output shows a welcome message and the successful addition of a new book.

```

CODING 1.py - D:\IP LIBRARY\CODING\CODING 1.py (3.9.0)
File Edit Format Run Options Window Help

import pandas as pd
import matplotlib.pyplot as plt
from datetime import date

print("----- WELCOME TO NATIONAL DIGITAL LIBRARY ASSOCIATION -----")

def addNewBook():
    bookid = int(input("Enter a book id : "))
    title = input("Enter book title : ")
    author = input("Enter author of the book : ")
    publisher = input("Enter book publisher : ")
    edition = input("Enter edition of book : ")
    cost = int(input("Enter cost of the book : "))
    category = input("Enter category of book : ")
    bdf = pd.read_csv(r"D:\IP LIBRARY\EXCEL FILES\book.csv")
    n = bdf["bookid"].count()
    bdf.at[n] = [bookid, title, author, publisher, edition, cost, category]
    bdf.to_csv(r"D:\IP LIBRARY\EXCEL FILES\book.csv", index = False)
    print("Book added successfully")
    print(bdf)

def searchBook():
    title = input("Enter a book name : ")
    bdf = pd.read_csv(r"D:\IP LIBRARY\EXCEL FILES\book.csv")
    df = bdf.loc[bdf["title"] == title]
    if df.empty:
        print("No book found with given code")
    else:
        print("Books details are :")
        print(df)

def deleteBook():
    bookid = float(input("Enter a book id : "))
    bdf = pd.read_csv(r"D:\IP LIBRARY\EXCEL FILES\book.csv")
    bdf = bdf.drop(bdf[bdf["bookid"] == bookid].index)
    bdf.to_csv(r"D:\IP LIBRARY\EXCEL FILES\book.csv", index = False)
    print("Book Deleted Successfully")
    print(bdf)
  
```

```
*CODING 1.py - D:\IP LIBRARY\CODING\CODING 1.py (3.9.0)
File Edit Format Run Options Window Help

def showBooks():
    bdf=pd.read_csv(r"D:\IP LIBRARY\EXEL FILES\book.csv")
    print(bdf)

def addNewMember():
    mid = int(input("Enter a member id : "))
    mname = input("Enter member name : ")
    phoneno = int(input("Enter phone number : "))
    numberofbooksissued=0
    mdf = pd.read_csv(r"D:\IP LIBRARY\EXEL FILES\member.csv")
    n = mdf["mid"].count()
    mdf.at[n] = [mid,mname,phoneno,numberofbooksissued]
    mdf.to_csv(r"D:\IP LIBRARY\EXEL FILES\member.csv",index = False)
    print("New Member added successfully")
    print(mdf)

def searchMember():
    mname = input("Enter a member name : ")
    bdf =pd.read_csv(r"D:\IP LIBRARY\EXEL FILES\member.csv")
    df =bdf.loc[bdf["mname"]== mname]
    if df.empty:
        print("No member found with given name")
    else:
        print("Members details are :")
        print(df)

def deleteMember():
    mid = float(input("Enter a member id : "))
    bdf=pd.read_csv(r"D:\IP LIBRARY\EXEL FILES\member.csv")
    bdf=bdf.drop(bdf[bdf["mid"]== mid].index)
    bdf.to_csv(r"D:\IP LIBRARY\EXEL FILES\member.csv", index= False )
    print("Member Deleted Successfully")
    print(bdf)

>>> showMembers()
Ln: 41 Col: 4
5:13 PM
12/2/2020
```

```
*CODING 1.py - D:\IP LIBRARY\CODING\CODING 1.py (3.9.0)
File Edit Format Run Options Window Help

def deleteMember():
    mid = float(input("Enter a member id : "))
    bdf=pd.read_csv(r"D:\IP LIBRARY\EXEL FILES\member.csv")
    bdf=bdf.drop(bdf[bdf["mid"]== mid].index)
    bdf.to_csv(r"D:\IP LIBRARY\EXEL FILES\member.csv", index= False )
    print("Member Deleted Successfully")
    print(bdf)

def showMembers():
    bdf=pd.read_csv(r"D:\IP LIBRARY\EXEL FILES\member.csv")
    print(bdf)

def issueBooks():
    book_name = input("Enter book name :")
    bdf = pd.read_csv(r"D:\IP LIBRARY\EXEL FILES\book.csv")
    bdf = bdf.loc[bdf["title"] == book_name]
    if bdf.empty:
        print("No Book Found in the Library")
        return

    m_name = input("Enter member name : ")
    mdf = pd.read_csv(r"D:\IP LIBRARY\EXEL FILES\member.csv")
    mdf = mdf.loc[mdf["m_name"] == m_name]
    if mdf.empty:
        print("No such Member Found")
        return

    dateofissue = int(input("Enter date of issue : "))
    numberofbookissued = int(input("Enter number of book issued :"))
    bdf = pd.read_csv(r"D:\IP LIBRARY\EXEL FILES\issuebooks.csv")
    n = bdf["book_name"].count()
    bdf.at[n] = [book_name,m_name,date.today(),numberofbookissued,""]
    bdf.to_csv(r"D:\IP LIBRARY\EXEL FILES\issuebooks.csv", index = False)
    print("Book issued successfully")
    print(bdf)

Ln: 95 Col: 0
5:14 PM
12/2/2020
```

```
*CODING 1.py - D:\IP LIBRARY\CODING\CODING 1.py (3.9.0)
File Edit Format Run Options Window Help

def returnBook():
    m_name=input("Enter a member name : ")
    book_name = input("Enter book name : ")
    idf = pd.read_csv(r"D:\\IP LIBRARY\\EXEL FILES\\issuebooks.csv")
    idf = idf.loc[idf["book_name"] == book_name]
    if idf.empty:
        print("The book is not issued in records")
    else:
        idf = idf.loc[idf["m_name"] == m_name]
        if idf.empty:
            print("The book is not issued to the member")
        else:
            print("Book can be returned")
            ans = input("Are you sure you want to return the book : ")
            if ans.lower() == "yes":
                idf = pd.read_csv(r"D:\\IP LIBRARY\\EXEL FILES\\issuebooks.csv")
                idf = idf.drop(idf[idf["book_name"] == book_name].index)
                idf.to_csv(r"D:\\IP LIBRARY\\EXEL FILES\\issuebooks.csv", index=False)
                print("Book Returned Successfully")
            else:
                print("Return operation cancelled")

def showIssuedBooks():
    idf=pd.read_csv(r"D:\\IP LIBRARY\\EXEL FILES\\issuebooks.csv")
    print(idf)

def deleteIssuedBooks():
    book_name = input("Enter a book name : ")
    bdf=pd.read_csv(r"D:\\IP LIBRARY\\EXEL FILES\\issuebooks.csv")
    bdf=bdf.drop(bdf[bdf["book_name"]== book_name].index)
    bdf.to_csv(r"D:\\IP LIBRARY\\EXEL FILES\\issuebooks.csv", index= False )
    print("Deleted Issued Book Successfully")
    print(bdf)

def showCharts():
    print("Press 1 - Books and their Cost")
    print("Press 2 - Number of Books issued by members")
    ch = int(input("Enter your choice : "))
    if ch == 1:
        df = pd.read_csv(r"D:\\IP LIBRARY\\EXEL FILES\\book.csv")
        df = df[["title", "cost"]]
        df.plot("title", "cost", kind='bar')
        plt.xlabel('title----->')
        plt.ylabel('cost----->')
        plt.show()
    if ch== 2:
        df = pd.read_csv(r"D:\\IP LIBRARY\\EXEL FILES\\issuebooks.csv")
        df = df[["numberofbookissued", "m_name"]]
        df.plot(kind='bar', color="red")
        plt.show()

def login():
    uname = input("Enter Username : ")
    pwd = input("Enter Password : ")
    df = pd.read_csv(r"D:\\IP LIBRARY\\EXEL FILES\\users.csv")
    df = df.loc[df["Username"] == uname]
    if df.empty:
        print("Invalid Username given")
        return False
    else:
        df = df.loc[df["password"] == pwd]
        if df.empty:
            print("Invalid Password")
            return False
        else:
            print("Username and Password matched successfully")
            return True

if __name__ == '__main__':
    print("Welcome to IP Library")
    while True:
        print("1. Return Book")
        print("2. Show Issued Books")
        print("3. Delete Issued Books")
        print("4. Show Charts")
        print("5. Login")
        print("6. Exit")
        choice = int(input("Enter your choice : "))
        if choice == 1:
            returnBook()
        elif choice == 2:
            showIssuedBooks()
        elif choice == 3:
            deleteIssuedBooks()
        elif choice == 4:
            showCharts()
        elif choice == 5:
            login()
        elif choice == 6:
            break
        else:
            print("Invalid choice")
    print("Thank you for using IP Library")
```

```
*CODING 1.py - D:\IP LIBRARY\CODING\CODING 1.py (3.9.0)
File Edit Format Run Options Window Help

def showCharts():
    print("Press 1 - Books and their Cost")
    print("Press 2 - Number of Books issued by members")
    ch = int(input("Enter your choice : "))
    if ch == 1:
        df = pd.read_csv(r"D:\\IP LIBRARY\\EXEL FILES\\book.csv")
        df = df[["title", "cost"]]
        df.plot("title", "cost", kind='bar')
        plt.xlabel('title----->')
        plt.ylabel('cost----->')
        plt.show()
    if ch== 2:
        df = pd.read_csv(r"D:\\IP LIBRARY\\EXEL FILES\\issuebooks.csv")
        df = df[["numberofbookissued", "m_name"]]
        df.plot(kind='bar', color="red")
        plt.show()

def login():
    uname = input("Enter Username : ")
    pwd = input("Enter Password : ")
    df = pd.read_csv(r"D:\\IP LIBRARY\\EXEL FILES\\users.csv")
    df = df.loc[df["Username"] == uname]
    if df.empty:
        print("Invalid Username given")
        return False
    else:
        df = df.loc[df["password"] == pwd]
        if df.empty:
            print("Invalid Password")
            return False
        else:
            print("Username and Password matched successfully")
            return True

if __name__ == '__main__':
    print("Welcome to IP Library")
    while True:
        print("1. Return Book")
        print("2. Show Issued Books")
        print("3. Delete Issued Books")
        print("4. Show Charts")
        print("5. Login")
        print("6. Exit")
        choice = int(input("Enter your choice : "))
        if choice == 1:
            returnBook()
        elif choice == 2:
            showIssuedBooks()
        elif choice == 3:
            deleteIssuedBooks()
        elif choice == 4:
            showCharts()
        elif choice == 5:
            login()
        elif choice == 6:
            break
        else:
            print("Invalid choice")
    print("Thank you for using IP Library")
```

```
*CODING 1.py - D:\IP LIBRARY\CODING\CODING 1.py (3.9.0)*
File Edit Format Run Options Window Help

def showMenu():
    print("-----")
    print("              NATIONAL DIGITAL LIBRARY ASSOCIATION              ")
    print("-----")
    print("Press 1 - Add a New Book")
    print("Press 2 - Search for a Book")
    print("Press 3 - Delete a Book")
    print("Press 4 - Show All Books")
    print("Press 5 - Add a New Member")
    print("Press 6 - Search for a Member")
    print("Press 7 - Delete a Member")
    print("Press 8 - Show All Members")
    print("Press 9 - Issue a Book")
    print("Press 10 - Return a Book")
    print("Press 11 - Show All Issued Books")
    print("Press 12 - Delete a Issue a Book")
    print("Press 13 - To view Charts")
    print("Press 14 - To exit")
    choice = int(input("Enter your choice : "))
    return choice

if login():
    while True:
        ch = showMenu()
        if ch == 1:
            addNewBook()
        elif ch == 2:
            searchBook()
        elif ch == 3:
            deleteBook()
        elif ch == 4:
            showBooks()
        elif ch == 5:
            addNewMember()
        elif ch == 6:
            searchMember()
        elif ch == 7:
            deleteMember()
        elif ch == 8:
            showMembers()
        elif ch == 9:
            issueBooks()

Ln: 170 Col: 8
5:17 PM 12/2/2020
```

```
*CODING 1.py - D:\IP LIBRARY\CODING\CODING 1.py (3.9.0)*
File Edit Format Run Options Window Help

print("-----")
print("              NATIONAL DIGITAL LIBRARY ASSOCIATION              ")
print("-----")
print("Press 1 - Add a New Book")
print("Press 2 - Search for a Book")
print("Press 3 - Delete a Book")
print("Press 4 - Show All Books")
print("Press 5 - Add a New Member")
print("Press 6 - Search for a Member")
print("Press 7 - Delete a Member")
print("Press 8 - Show All Members")
print("Press 9 - Issue a Book")
print("Press 10 - Return a Book")
print("Press 11 - Show All Issued Books")
print("Press 12 - Delete a Issue a Book")
print("Press 13 - To view Charts")
print("Press 14 - To exit")
choice = int(input("Enter your choice : "))
return choice

if login():
    while True:
        ch = showMenu()
        if ch == 1:
            addNewBook()
        elif ch == 2:
            searchBook()
        elif ch == 3:
            deleteBook()
        elif ch == 4:
            showBooks()
        elif ch == 5:
            addNewMember()
        elif ch == 6:
            searchMember()
        elif ch == 7:
            deleteMember()
        elif ch == 8:
            showMembers()
        elif ch == 9:
            issueBooks()
        elif ch == 10:
            returnBook()
        elif ch == 11:
            showIssuedBooks()
        elif ch == 12:
            deleteIssuedBooks()
        elif ch == 13:
            showCharts()

        elif ch == 14:
            break
        else:
            print("Invalid Option Selected")

print("THANKYOU FOR VISITING THE LIBRARY")

Ln: 170 Col: 8
5:17 PM 12/2/2020
```



## OUTPUT:

*TO GET OUTPUT : PRESS F5*

```
C:\Windows\py.exe
Enter Username : Abeer
Enter Password : batman
Username and Password matched successfully

-----
NATIONAL DIGITAL LIBRARY ASSOCIATION
-----
Press 1 - Add a New Book
Press 2 - Search for a Book
Press 3 - Delete a Book
Press 4 - Show All Books
Press 5 - Add a New Member
Press 6 - Search for a Member
Press 7 - Delete a Member
Press 8 - Show All Members
Press 9 - Issue a Book
Press 10 - Return a Book
Press 11 - Show All Issued Books
Press 12 - Delete a Issue a Book
Press 13 - To view Charts
Press 14 - To exit
Enter your choice :
```

- TO ADD NEW BOOK DETAILS IN A CSV :  
ENTER BOOK DETAILS WHICH USER WANT TO PUT IN CSV FILE

```
C:\Windows\py.exe
Press 3 - Delete a Book
Press 4 - Show All Books
Press 5 - Add a New Member
Press 6 - Search for a Member
Press 7 - Delete a Member
Press 8 - Show All Members
Press 9 - Issue a Book
Press 10 - Return a Book
Press 11 - Show All Issued Books
Press 12 - Delete a Issue a Book
Press 13 - To view Charts
Press 14 - To exit
Enter your choice : 1
Enter a book id : 120
Enter book title : A TEXT BOOK PHYSICAL EDUCATION
Enter author of the book : SANJAY KUNDRA
Enter book publisher : EVERGREEN PUBLISHERS
Enter edition of book : 2019
Enter cost of the book : 300
Enter category of book : P.E
Book added successfully

bookid      title                                     author                                     publisher edition    cost    category
0  101.0    Fundamental of analytical chemistry    Douglas A. Skoog    ARP PUBLICATION    2016    540.0    Chemistry
1  102.0    Advanced organic chemistry            Francis A Carey    FRC PUBLICATION    2019    850.0    Chemistry
2  103.0    Essential biochemistry                 Charlie W Patt     CNP PUBLICATION    2017    450.0    Chemistry
3  104.0    New Simplified Physics                 S.L. Arora        DHANPAT RAI & CO.  2018    900.0    Physics
4  105.0    Fundamental of physics                 KL. GOGIA & KL. GOMBLER  PRADEEP PUBLICATION  2019    1200.0    Physics
5  106.0    Modern ABC                             S.P.JAUHAR        MODERN PUBLISHERS  2019    1200.0    Physics
6  107.0    R.D.SHARMA                             R.D.SHARMA        DHANPAT RAI & CO.  2019    900.0    Maths
7  108.0    Algebra Cengage                        R.S. AGRAWAL      ARIHANT PUBLISHERS  2018    500.0    Maths
8  109.0    R.S. Agrawal                           R.S. AGRAWAL      NaN                2019    600.0    Maths
9  110.0    S. Chand                               SK GUPTA          S.CHAND PUBLICATION  2017    900.0    Maths
10 111.0    Modern ABC                             S.P.JAUHAR        MODERN PUBLISHERS  2019    1100.0    Chemistry
11 112.0    Informatics Practises with Python      Preeti Arora      SULTAN CHAND       2019    500.0    I.P
12 113.0    Computer Networks                     Sharad Kumar Verma SUN INDIA PUBLISHERS  2018    650.0    I.P
13 114.0    Informatics Practises with Python      Sumita Arora      SULTAN CHAND       2019    500.0    I.P
14 115.0    Client server computing                Lalit Kumar       SUN INDIA PUBLISHERS  2018    450.0    I.P
15 116.0    War&Peace                             Tolstoy           THE RUSSIAN MESENGER  2004    700.0    Novel
16 117.0    Pride & Prejudice                     Jane Austin       T.EGERTOR,WHITEHALL  2008    430.0    Novel
17 118.0    The History of TOM JONES               Henry Fielding    Andrew Miller       2005    400.0    Novel
18 119.0    David Copperfield                     Charles Dickens   BRADBURY&EVANS      2011    650.0    Novel
19 120.0    A TEXT BOOK PHYSICAL EDUCATION        SANJAY KUNDRA     EVERGREEN PUBLISHERS  2019    300.0    P.E

-----
NATIONAL DIGITAL LIBRARY ASSOCIATION
-----
```

- **TO SEARCH FOR A BOOK:**  
ENTER NAME OF BOOK WHICH USER WANT TO SEARCH

```

C:\Windows\py.exe
Enter Username : Abeer
Enter Password : batman
Username and Password matched successfully

-----
NATIONAL DIGITAL LIBRARY ASSOCIATION
-----
Press 1 - Add a New Book
Press 2 - Search for a Book
Press 3 - Delete a Book
Press 4 - Show All Books
Press 5 - Add a New Member
Press 6 - Search for a Member
Press 7 - Delete a Member
Press 8 - Show All Members
Press 9 - Issue a Book
Press 10 - Return a Book
Press 11 - Show All Issued Books
Press 12 - Delete a Issue a Book
Press 13 - To view Charts
Press 14 - To exit
Enter your choice : 2
Enter a book name : A TEXT BOOK PHYSICAL EDUCATION
Books details are :
-----
bookid      title      author      publisher      edition      cost      category
19  120.0  A TEXT BOOK PHYSICAL EDUCATION  SANJAY KUNDR  EVERGREEN PUBLISHERS  2019.0  300.0  P.E
-----
NATIONAL DIGITAL LIBRARY ASSOCIATION
-----
Press 1 - Add a New Book
Press 2 - Search for a Book
Press 3 - Delete a Book
Press 4 - Show All Books
Press 5 - Add a New Member
Press 6 - Search for a Member
Press 7 - Delete a Member
Press 8 - Show All Members
Press 9 - Issue a Book
Press 10 - Return a Book
Press 11 - Show All Issued Books
Press 12 - Delete a Issue a Book
Press 13 - To view Charts
Press 14 - To exit
Enter your choice :

```

- **TO DELETE A BOOK:**  
ENTER BOOK DETAILS TO DELETE A BOOK FROM CSV FILE

```

C:\Windows\py.exe
Enter Username : Abeer
Enter Password : batman
Username and Password matched successfully

-----
NATIONAL DIGITAL LIBRARY ASSOCIATION
-----
Press 1 - Add a New Book
Press 2 - Search for a Book
Press 3 - Delete a Book
Press 4 - Show All Books
Press 5 - Add a New Member
Press 6 - Search for a Member
Press 7 - Delete a Member
Press 8 - Show All Members
Press 9 - Issue a Book
Press 10 - Return a Book
Press 11 - Show All Issued Books
Press 12 - Delete a Issue a Book
Press 13 - To view Charts
Press 14 - To exit
Enter your choice : 3
Enter a book id : 120
Book Deleted Successfully
-----
bookid      title      author      publisher      edition      cost      category
0  181.0  Fundamental of analytical chemistry  Douglas A. Skoog  ARP PUBLICATION  2016.0  540.0  Chemistry
1  182.0  Advanced organic chemistry  Francis A Carey  FRC PUBLICATION  2019.0  850.0  Chemistry
2  183.0  Essential biochemistry  Charlie W Patt  CNP PUBLICATION  2017.0  450.0  Chemistry
3  184.0  New Simplified Physics  S.L. Anona  DHANPAT RAI & CO.  2018.0  900.0  Physics
4  185.0  Fundamental of physics  KL. GOGIA & KL. GOMBLER  PRADEEP PUBLICATION  2019.0  1200.0  Physics
5  186.0  Modern ABC  S.P.JAUHAR  MODERN PUBLISHERS  2019.0  1200.0  Physics
6  187.0  R.D.SHARMA  R.D.SHARMA  DHANPAT RAI & CO.  2019.0  900.0  Maths
7  188.0  Algebra Cengage  Cengage  ARIHANT PUBLISHERS  2018.0  500.0  Maths
8  189.0  R.S. Agrawal  R.S. AGRAWAL  Nan  2019.0  600.0  Maths
9  110.0  S. Chand  SK GUPTA  S.CHAND PUBLICATION  2017.0  900.0  Maths
10  111.0  Modern ABC  S.P.JAUHAR  MODERN PUBLISHERS  2019.0  1100.0  Chemistry
11  112.0  Informatics Practises with Python  Preeti Anona  SULTAN CHAND  2019.0  500.0  I.P
12  113.0  Computer Networks  Sharad Kumar Verma  SUN INDIA PUBLISHERS  2018.0  650.0  I.P
13  114.0  Informatics Practises with Python  Sumita Anona  SULTAN CHAND  2019.0  500.0  I.P
14  115.0  Client server computing  Lalit Kumar  SUN INDIA PUBLISHERS  2018.0  450.0  I.P
15  116.0  War&Peace  Tolstoy  THE RUSSIAN MESSENGER  2004.0  700.0  Novel
16  117.0  Pride & Prejudice  Jane Austin  T.EGERTOR,WHITEHALL  2008.0  430.0  Novel
17  118.0  The History of TOM JONES  Henry Fielding  Andrew Miller  2005.0  400.0  Novel
18  119.0  David Copperfield  Charles Dickens  BRADBURY&EVANS  2011.0  650.0  Novel
-----

```

- **TO SHOW ALL BOOKS PRESENT IN THE CSV FILE:**

```

C:\Windows\py.exe
Enter Username : Abeer
Enter Password : batman
Username and Password matched successfully

-----
NATIONAL DIGITAL LIBRARY ASSOCIATION
-----

Press 1 - Add a New Book
Press 2 - Search for a Book
Press 3 - Delete a Book
Press 4 - Show All Books
Press 5 - Add a New Member
Press 6 - Search for a Member
Press 7 - Delete a Member
Press 8 - Show All Members
Press 9 - Issue a Book
Press 10 - Return a Book
Press 11 - Show All Issued Books
Press 12 - Delete a Issue a Book
Press 13 - To view Charts
Press 14 - To exit
Enter your choice : 4

bookid      title                                     author      publisher  edition  cost  category
0  101.0      Fundamental of analytical chemistry      Douglas A. Skoog      ARP PUBLICATION      2016.0  540.0  Chemistry
1  102.0      Advanced organic chemistry              Francis A Carey       FRC PUBLICATION      2019.0  850.0  Chemistry
2  103.0      Essential biochemistry                   Charlie W Patt         CMP PUBLICATION      2017.0  450.0  Chemistry
3  104.0      New Simplified Physics                   S.L. Arora            DHANPAT RAI & CO.    2018.0  900.0  Physics
4  105.0      Fundamental of physics                    KL. GOGIA & KL. GOMBLER  PRADEEP PUBLICATION  2019.0  1200.0 Physics
5  106.0      Modern ABC                               S.P.JAUHAR            MODERN PUBLISHERS    2019.0  1200.0 Physics
6  107.0      R.D.SHARMA                               R.D.SHARMA            DHANPAT RAI & CO.    2019.0  900.0  Maths
7  108.0      Algebra Cengage                          Cengage               ARIHANT PUBLISHERS   2018.0  500.0  Maths
8  109.0      R.S. Agrawal                             R.S. AGRAWAL          NaN                  2019.0  600.0  Maths
9  110.0      S. Chand                                 SK GUPTA              S.CHAND PUBLICATION  2017.0  900.0  Maths
10 111.0      Modern ABC                               S.P.JAUHAR            MODERN PUBLISHERS    2019.0  1100.0 Chemistry
11 112.0      Informatics Practises with Python         Preeti Arora          SULTAN CHAND          2019.0  500.0  I.P
12 113.0      Computer Networks                        Sharad Kumar Verma     SUN INDIA PUBLISHERS  2018.0  650.0  I.P
13 114.0      Informatics Practises with Python         Sumita Arora          SULTAN CHAND          2019.0  500.0  I.P
14 115.0      Client server computing                   Lalit Kumar           SUN INDIA PUBLISHERS  2018.0  450.0  I.P
15 116.0      War&Peace                                Tolystoy              THE RUSSIAN MESENGER  2004.0  700.0  Novel
16 117.0      Pride & Prejudice                         Jane Austin           T.EGERTOR,WHITEHALL  2008.0  430.0  Novel
17 118.0      The History of TOM JONES                  Henry Fielding         Andrew Miller         2005.0  400.0  Novel
18 119.0      David Copperfield                        Charles Dickens        BRADBURY&EVANS       2011.0  650.0  Novel

-----
NATIONAL DIGITAL LIBRARY ASSOCIATION
-----

```

- **TO ADD A NEW MEMBER IN A LIBRARY:**

ENTER MEMBER DETAILS WHICH USER WANT TO PUT IN CSV FILE

```

C:\Windows\py.exe
Enter Username : Abeer
Enter Password : batman
Username and Password matched successfully

-----
NATIONAL DIGITAL LIBRARY ASSOCIATION
-----

Press 1 - Add a New Book
Press 2 - Search for a Book
Press 3 - Delete a Book
Press 4 - Show All Books
Press 5 - Add a New Member
Press 6 - Search for a Member
Press 7 - Delete a Member
Press 8 - Show All Members
Press 9 - Issue a Book
Press 10 - Return a Book
Press 11 - Show All Issued Books
Press 12 - Delete a Issue a Book
Press 13 - To view Charts
Press 14 - To exit
Enter your choice : 5
Enter a member id : 111
Enter member name : Abhinav
Enter phone number : 7785456697
New Member added successfully

mid      mname      phoneno      numberofbookissued
0  101.0      Nikhil Mehta  1.254699e+09  0.0
1  102.0      Harshit Chauhan  1.256399e+09  0.0
2  103.0      Dhruv Shrivastav  5.698231e+09  0.0
3  104.0      Aditya kumar  4.136590e+09  0.0
4  105.0      Abhishek Gupta  1.144550e+09  0.0
5  106.0      Alvin  4.879652e+09  0.0
6  107.0      Ankush  5.321699e+09  0.0
7  108.0      Ashutosh Singh  4.521699e+09  0.0
8  109.0      Abhinav Sen  7.879654e+09  0.0
9  110.0      Uday Sethi  1.245699e+09  0.0
10 111.0      Abhinav  7.785457e+09  0.0

-----
NATIONAL DIGITAL LIBRARY ASSOCIATION
-----

Press 1 - Add a New Book
Press 2 - Search for a Book
Press 3 - Delete a Book
Press 4 - Show All Books

```

- **TO SEARCH FOR A MEMBER:**  
*ENTER MEMBER DETAILS WHOM USER WANT TO SEARCH*

```

C:\Windows\py.exe
Enter Username : Abeer
Enter Password : batman
Username and Password matched successfully

-----
NATIONAL DIGITAL LIBRARY ASSOCIATION
-----
Press 1 - Add a New Book
Press 2 - Search for a Book
Press 3 - Delete a Book
Press 4 - Show All Books
Press 5 - Add a New Member
Press 6 - Search for a Member
Press 7 - Delete a Member
Press 8 - Show All Members
Press 9 - Issue a Book
Press 10 - Return a Book
Press 11 - Show All Issued Books
Press 12 - Delete a Issue a Book
Press 13 - To view Charts
Press 14 - To exit
Enter your choice : 6
Enter a member name : Abhinav
Members details are :
mid      mname      phoneno      numberofbookissued
10  111.0  Abhinav  7.785457e+09      0.0

-----
NATIONAL DIGITAL LIBRARY ASSOCIATION
-----
Press 1 - Add a New Book
Press 2 - Search for a Book
Press 3 - Delete a Book
Press 4 - Show All Books
Press 5 - Add a New Member
Press 6 - Search for a Member
Press 7 - Delete a Member
Press 8 - Show All Members
Press 9 - Issue a Book
Press 10 - Return a Book
Press 11 - Show All Issued Books
Press 12 - Delete a Issue a Book
Press 13 - To view Charts
Press 14 - To exit
Enter your choice :

```

- **TO DELETE A MEMBER :**  
*Enter details of member which user want delete*

```

C:\Windows\py.exe
Enter Username : Abeer
Enter Password : batman
Username and Password matched successfully

-----
NATIONAL DIGITAL LIBRARY ASSOCIATION
-----
Press 1 - Add a New Book
Press 2 - Search for a Book
Press 3 - Delete a Book
Press 4 - Show All Books
Press 5 - Add a New Member
Press 6 - Search for a Member
Press 7 - Delete a Member
Press 8 - Show All Members
Press 9 - Issue a Book
Press 10 - Return a Book
Press 11 - Show All Issued Books
Press 12 - Delete a Issue a Book
Press 13 - To view Charts
Press 14 - To exit
Enter your choice : 7
Enter a member id : 111
Member Deleted Successfully
mid      mname      phoneno      numberofbookissued
0  101.0  Nikhil Mehta  1.254699e+09      0.0
1  102.0  Harshit Chauhan  1.256399e+09      0.0
2  103.0  Dhruv Shrivastav  5.698231e+09      0.0
3  104.0  Aditya Kumar  4.136590e+09      0.0
4  105.0  Abhishek Gupta  1.144559e+09      0.0
5  106.0  Alvin  4.879652e+09      0.0
6  107.0  Ankush  5.321699e+09      0.0
7  108.0  Ashutosh Singh  4.521699e+09      0.0
8  109.0  Abhinav Sen  7.879654e+09      0.0
9  110.0  Uday Sethi  1.245699e+09      0.0

-----
NATIONAL DIGITAL LIBRARY ASSOCIATION
-----
Press 1 - Add a New Book
Press 2 - Search for a Book
Press 3 - Delete a Book
Press 4 - Show All Books
Press 5 - Add a New Member
Press 6 - Search for a Member
Press 7 - Delete a Member

```

- **TO SHOW ALL MEMBERS IN LIBRARY:**

```

C:\Windows\py.exe
Enter Username : Abeer
Enter Password : batman
Username and Password matched successfully

-----
NATIONAL DIGITAL LIBRARY ASSOCIATION
-----
Press 1 - Add a New Book
Press 2 - Search for a Book
Press 3 - Delete a Book
Press 4 - Show All Books
Press 5 - Add a New Member
Press 6 - Search for a Member
Press 7 - Delete a Member
Press 8 - Show All Members
Press 9 - Issue a Book
Press 10 - Return a Book
Press 11 - Show All Issued Books
Press 12 - Delete a Issue a Book
Press 13 - To view Charts
Press 14 - To exit
Enter your choice : 8

mid      mname      phoneno      numberofbookissued
0 101.0   Nikhil Mehta  1.254699e+09  0.0
1 102.0   Harshit Chauhan  1.256399e+09  0.0
2 103.0   Dhruv Shrivastav  5.698231e+09  0.0
3 104.0   Aditya Kumar  4.136590e+09  0.0
4 105.0   Abhishek Gupta  1.144559e+09  0.0
5 106.0   Alvin  4.879652e+09  0.0
6 107.0   Ankush  5.321699e+09  0.0
7 108.0   Ashutosh Singh  4.521699e+09  0.0
8 109.0   Abhinav Sen  7.879654e+09  0.0
9 110.0   Uday Sethi  1.245699e+09  0.0

-----
NATIONAL DIGITAL LIBRARY ASSOCIATION
-----
Press 1 - Add a New Book
Press 2 - Search for a Book
Press 3 - Delete a Book
Press 4 - Show All Books
Press 5 - Add a New Member
Press 6 - Search for a Member
Press 7 - Delete a Member
Press 8 - Show All Members
Press 9 - Issue a Book

```

- **FOR ISSUE A BOOK:**

*Enter details to issue a book*

```

C:\Windows\py.exe
----- WELCOME TO NATIONAL DIGITAL LIBRARY ASSOCIATION -----
Enter Username : Abeer
Enter Password : batman
Username and Password matched successfully

-----
NATIONAL DIGITAL LIBRARY ASSOCIATION
-----
Press 1 - Add a New Book
Press 2 - Search for a Book
Press 3 - Delete a Book
Press 4 - Show All Books
Press 5 - Add a New Member
Press 6 - Search for a Member
Press 7 - Delete a Member
Press 8 - Show All Members
Press 9 - Issue a Book
Press 10 - Return a Book
Press 11 - Show All Issued Books
Press 12 - Delete a Issue a Book
Press 13 - To view Charts
Press 14 - To exit
Enter your choice : 9
Enter book name :Fundamental of analytical chemistry
Enter member name : Alvin
Enter date of issue : 2
Enter number of book issued :1
Book issued successfully

book_name      book_name      m_name      date_of_issue      numberofbookissued      date_of_return
0  Advanced organic chemistry  Harshit Chauhan  11/22/2020  1.0  NaN
1  Essential biochemistry  Dhruv Shrivastav  11/19/2020  1.0  NaN
2  New Simplified Physics  Aditya Kumar  11/24/2020  2.0  NaN
3  Fundamental of physics  Abhishek Gupta  11/23/2020  3.0  NaN
4  R.D.SHARMA  Ankush  11/21/2020  1.0  NaN
5  Algebra Cengage  Ashutosh Singh  11/24/2020  2.0  NaN
6  R.S. Agrawal  Abhinav Sen  11/22/2020  1.0  NaN
7  S. Chand  Uday Sethi  11/27/2020  1.0  NaN
8  Modern ABC  Dhruv Shrivastav  11/20/2020  1.0  NaN
9  Fundamental of analytical chemistry  Alvin  2020-12-02  1.0  NaN

-----
NATIONAL DIGITAL LIBRARY ASSOCIATION
-----
Press 1 - Add a New Book
Press 2 - Search for a Book
Press 3 - Delete a Book

```

## • FOR RETURN A BOOK:

```

C:\Windows\py.exe
Enter date of issue : 2
Enter number of book issued :1
Book issued successfully

book_name      m_name      date_of_issue      numberofbookissued      date_of_return
0      Advanced organic chemistry      Harshit Chauhan      11/22/2020      1.0      NaN
1      Essential biochemistry      Dhruv Shrivastav      11/19/2020      1.0      NaN
2      New Simplified Physics      Aditya Kumar      11/24/2020      2.0      NaN
3      Fundamental of physics      Abhishek Gupta      11/23/2020      3.0      NaN
4      R.D.SHARMA      Ankush      11/21/2020      1.0      NaN
5      Algebra Cengage      Ashutosh Singh      11/24/2020      2.0      NaN
6      R.S. Agrawal      Abhinav Sen      11/22/2020      1.0      NaN
7      S. Chand      Uday Sethi      11/27/2020      1.0      NaN
8      Modern ABC      Dhruv Shrivastav      11/20/2020      1.0      NaN
9      Fundamental of analytical chemistry      Alvin      2020-12-02      1.0      NaN

-----
NATIONAL      DIGITAL      LIBRARY      ASSOCIATION
-----
Press 1 - Add a New Book
Press 2 - Search for a Book
Press 3 - Delete a Book
Press 4 - Show All Books
Press 5 - Add a New Member
Press 6 - Search for a Member
Press 7 - Delete a Member
Press 8 - Show All Members
Press 9 - Issue a Book
Press 10 - Return a Book
Press 11 - Show All Issued Books
Press 12 - Delete a Issue a Book
Press 13 - To view Charts
Press 14 - To exit
Enter your choice : 10
Enter a member name : Alvin
Enter book name : Fundamental of analytical chemistry
Book can be returned
Are you sure you want to return the book : yes
Book Returned Successfully

-----
NATIONAL      DIGITAL      LIBRARY      ASSOCIATION
-----
Press 1 - Add a New Book
Press 2 - Search for a Book
Press 3 - Delete a Book
Press 4 - Show All Books

```

## • TO SHOW ALL ISSUED BOOKS:

```

C:\Windows\py.exe
Enter Username : Abeer
Enter Password : batman
Username and Password matched successfully

-----
NATIONAL      DIGITAL      LIBRARY      ASSOCIATION
-----
Press 1 - Add a New Book
Press 2 - Search for a Book
Press 3 - Delete a Book
Press 4 - Show All Books
Press 5 - Add a New Member
Press 6 - Search for a Member
Press 7 - Delete a Member
Press 8 - Show All Members
Press 9 - Issue a Book
Press 10 - Return a Book
Press 11 - Show All Issued Books
Press 12 - Delete a Issue a Book
Press 13 - To view Charts
Press 14 - To exit
Enter your choice : 11

book_name      m_name      date_of_issue      dateof_return
0      Fundamental of analytical chemistry      Alvin      2020-11-29      NaN

-----
NATIONAL      DIGITAL      LIBRARY      ASSOCIATION
-----
Press 1 - Add a New Book
Press 2 - Search for a Book
Press 3 - Delete a Book
Press 4 - Show All Books
Press 5 - Add a New Member
Press 6 - Search for a Member
Press 7 - Delete a Member
Press 8 - Show All Members
Press 9 - Issue a Book
Press 10 - Return a Book
Press 11 - Show All Issued Books
Press 12 - Delete a Issue a Book
Press 13 - To view Charts
Press 14 - To exit
Enter your choice :

```

- **TO DELETE A ISSUE A BOOK:**

*Enter details to delete a issued books*

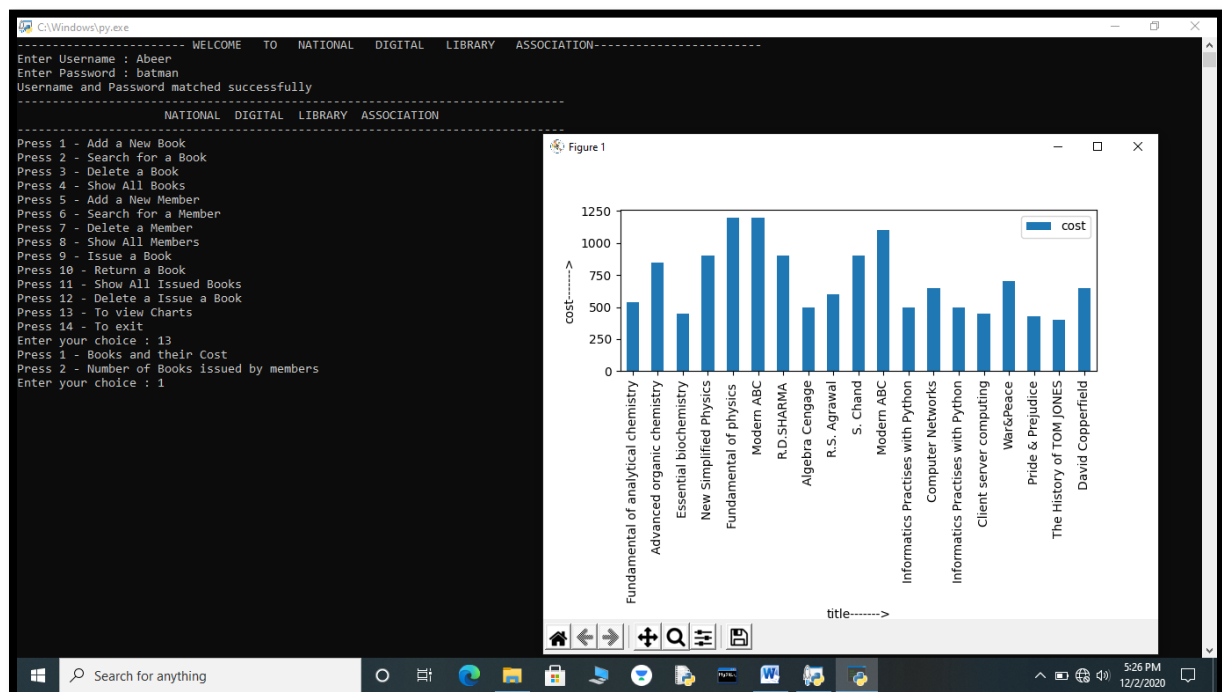
```

C:\Windows\py.exe
Press 3 - Delete a Book
Press 4 - Show All Books
Press 5 - Add a New Member
Press 6 - Search for a Member
Press 7 - Delete a Member
Press 8 - Show All Members
Press 9 - Issue a Book
Press 10 - Return a Book
Press 11 - Show All Issued Books
Press 12 - Delete a Issue a Book
Press 13 - To view Charts
Press 14 - To exit
Enter your choice : 9
Enter book name :Fundamental of analytical chemistry
Enter member name : Alvin Divine
Enter date of issue : 29
Book issued successfully
      book_name      m name date_of_issue dateof_return
0  Fundamental of analytical chemistry  Alvin Divine   2020-11-29
-----
NATIONAL DIGITAL LIBRARY ASSOCIATION
-----
Press 1 - Add a New Book
Press 2 - Search for a Book
Press 3 - Delete a Book
Press 4 - Show All Books
Press 5 - Add a New Member
Press 6 - Search for a Member
Press 7 - Delete a Member
Press 8 - Show All Members
Press 9 - Issue a Book
Press 10 - Return a Book
Press 11 - Show All Issued Books
Press 12 - Delete a Issue a Book
Press 13 - To view Charts
Press 14 - To exit
Enter your choice : 12
Enter a book name : Fundamental of analytical chemistry
Deleted Issued Book Successfully
Empty DataFrame
Columns: [book_name, m_name, date_of_issue, dateof_return]
Index: []
-----
NATIONAL DIGITAL LIBRARY ASSOCIATION
-----

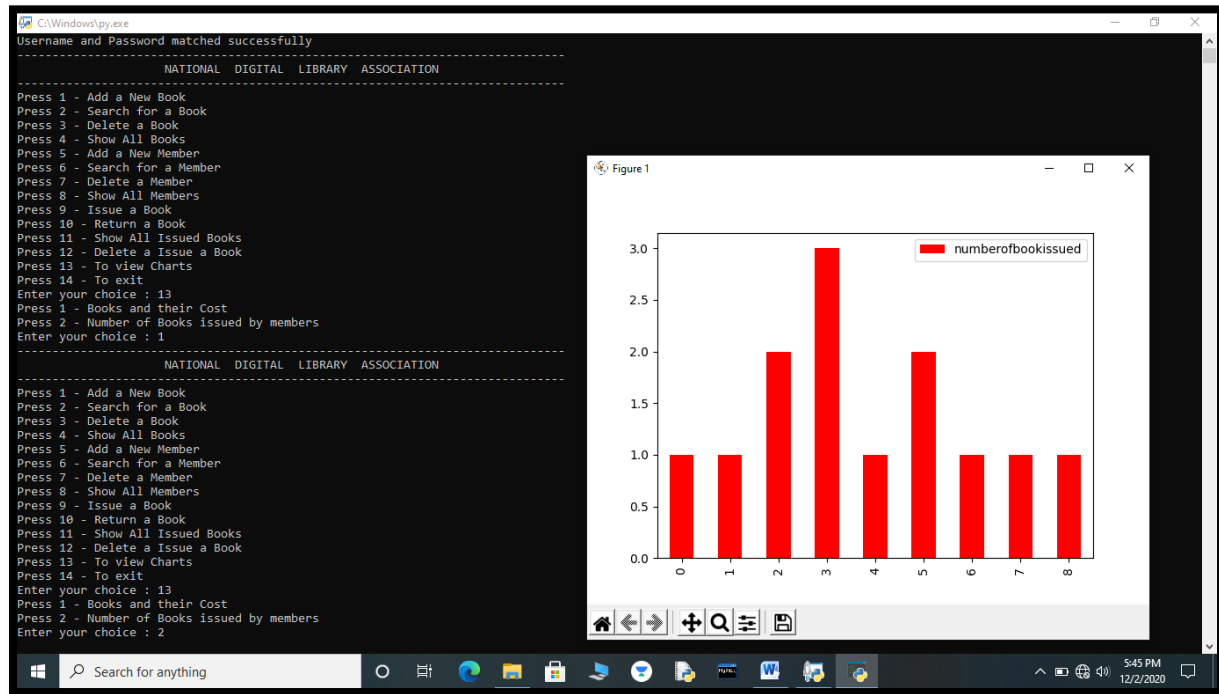
```

- **TO VIEW CHARTS/GRAPHS:**

✓ *Graph between no. of books and their costs*



✓ Graph for number of issued by members



● **HARDWARE AND SOFTWARE REQUIREMENTS:**

➤ **SOFTWARE REQUIREMENT:**

*I. OPERATING SYSTEM : WINDOWS 7 AND ABOVE*

*II. PROCESSOR : PENTIUM(ANY) OR AMD*

*ATHALON(3800+- 4200+ DUAL CORE)*

*III. MOTHERBOARD : 1.845 OR 915,995 FOR PENTIUM OR MSI*

*K9MM-V VIA K8M800+8237R PLUS CHIPSET*

*FOR AMD ATHALON*

*IV. RAM : 4GB+*



V. Hard disk	:	500GB
VIII. MONITOR	:	14.1 or 15 -17 inch
IX. Key board and mouse	:	YES
X. Printer	:	(if print is required – [Hard copy])

➤ **SOFTWARE REQUIREMENTS:**

- Windows OS
- Python

• **BIBLIOGRAPHY:**

✓ *INFORMTICS PRACTISES WITH PYTHON,*

*By Preeti Arora*

✓ *WEBSITE: <https://www.wikipedia.org>*