**Project Title :-** **VIRTUAL LIBRARY**

***Synopsis Report***

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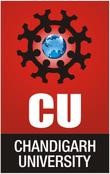
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**CONTENT:**

* **Introduction**
* **Objective**
* **Key Features**
* **Software Used**
* **Project Code**
* **Conclusion**



***Introduction:***

The Virtual Library project is an innovative initiative designed to revolutionize the way individuals access and engage with information and literature. In a world rapidly embracing digital transformation, this project aims to create a comprehensive virtual library that transcends the limitations of traditional brick and mortar libraries. The project leverages cutting edge technology to provide a seamless and immersive experience for users, fostering a new era of learning, research, and collaboration.

***Objective***

The creation of a virtual library is driven by several compelling motives that align with the evolving needs and preferences of contemporary society. These motives include:

* **Access to Information:** A virtual library breaks down physical barriers, allowing individuals from diverse locations and backgrounds to access a vast array of resources at convenience.
* **Digital Transformation:** Creating a virtual library caters to the changing habits of readers who increasingly prefer digital formats, making literature and knowledge more adaptable to modern lifestyle.
* **Global connectivity:** Avirtual library transcends geographical boundaries, connecting readers and scholars from around the world. This global connectivity promotes cultural exchange, collaboration and sharing of ideas.
* **Technological Innovation:** Leveraging advanced technologies such as artificial intelligence, machine learning, and virtual reality the virtual library represents a cutting edge approach to information distribution.
* **Community building:** Through virtual reading spaces, discussion forums and collaborative tools, the project seeks to build a sense of community among users. This communal aspects fosters shared interests, discussions, and collaborations replicating to some extent that occurs in physical libraries.
* **Educational Support:** Recognizing the importance of education, the virtual library serves as a valuable resource for students and educators. It provides access to cademic journals, research materials and educational resources, supporting formal and informal learning initiatives.
* **Adaptation to changing trends:** Creating a virtual library reflects an adaptation to changing trends in reading habits and information consumption. It embraces the digital era and positions libraries as dynamic, evolving entities that remains relevant in the face of technological advancements.

The motive behind creating a virtual library is to meet the evolving needs of a digital society, promote inclusivity, enhance user experiences, and contribute to the global sharing of knowledge in a sustainable and accessible manner.

***Key Features:***

Some key features of Virtual library is discussed below:-

1. **Digital Collection:** The virtual library boasts an extensive digital collection that spans across various genres, including fiction, non-fiction, academic publications and multimedia resources . Users can access a diverse range of materials from the comfort of their homes or any other location.
2. **Interactive Interface:** The project focuses on creating a user friendly and interactive interface that enhances the overall experience. User can explore virtual bookshelves, navigate through catalogues and engage with multimedia content.
3. **Virtual Reading Space:** To create the immersive experience of a physical library, the project introduces virtual reading spaces. Users can virtually enter designated areas for specific genres or themes, fostering a sense of community and shared interests.
4. **Personalized Recommendations:** Leveraging artificial intelligence and machine learning algorithms, the Virtual library tailors recommendations based on individual preferences, reading history, and user interactions.
5. **Collaborative tools:** The Virtual Libraryencourages collaboration among users. Integrated tools enable virtual study groups, book clubs and discussion forums. Users can share annotations, recommendations, and insight creating dynamic and participatory learning environment.
6. **Accessibility and Inclusivity:** The project prioritizes accessibility and inclusivity, ensuring that the virtual library is available to individuals with diverse needs.
7. **Global Outreach:** By transcending geographical boundaries, the Virtual Library promotes global access to knowledge and cultural exchange. It serves as a platform for connecting readers, authors, and scholars from around the world.

***Software Used:***

Anaconda is a Python and R programming language distribution that aims to simplify package management and deployment. It's used for data science, machine learning, deep learning, and more.

The features of Anaconda are:-

* Anaconda lets us create environments to install libraries and packages. This environment is completely independent of the operating system or admin libraries. This means we can create user-level environments with custom versions of libraries for specific projects, which helps us port the project across operating systems with minimal effort.
* Anaconda can have multiple environments with different versions of Python and supporting libraries. This way, any version mismatch can be avoided and is not affected by existing packages and libraries of the operating system.
* Anaconda comes preloaded with most of necessary packages and libraries for data-science-related tasks.
* Anaconda provides their package manager **conda** which is both a package manager and a virtual environment manager.
* **conda** manages to install packages that need compilation of C modules by the user better. This is important to Microsoft Windows users and not such a problem on GNU/Linux. Nevertheless, it is certainly easier than using plain **pip** even on GNU/Linux.
* It offers a stripped down installation called Miniconda, consisting of only Python, conda and a few other essential packages and you can install only those packages you need, either into the default environment or into a virtual environment.

***Project Code:***

***import pandas as pd***

***import matplotlib.pyplot as plt***

***from PIL import Image***

***from colorama import Fore***

***Nov=pd.read\_csv("C:/Users/lenovo/OneDrive/Desktop/DT-PROJECT/NOVELS.csv")***

***His=pd.read\_csv("C:/Users/lenovo/OneDrive/Desktop/DT-PROJECT/HISTORY.csv")***

***Bio=pd.read\_csv("C:/Users/lenovo/OneDrive/Desktop/DT-PROJECT/BIOGRAPHIES.csv")***

***Thr=pd.read\_csv("C:/Users/lenovo/OneDrive/Desktop/DT-PROJECT/THRILLERS.csv")***

***Chi=pd.read\_csv("C:/Users/lenovo/OneDrive/Desktop/DT-PROJECT/CHILDREN\_S BOOKS.csv")***

***Sales=pd.read\_csv("C:/Users/lenovo/OneDrive/Desktop/DT-PROJECT/SALES.csv")***

***def mainmenu():***

***category=0***

***while category!=4:***

***print('')***

***print(Fore.WHITE +'========================================')***

***print(Fore.CYAN +' THE BOOKSTORE ')***

***print(Fore.WHITE +'========================================')***

***print(Fore.YELLOW +' 1. Catalogue ')***

***print(Fore.YELLOW +' 2. Sales Statistics')***

***print(Fore.YELLOW +' 3. Reader\'s Favourites')***

***print(Fore.YELLOW +' 4. Exit')***

***print(Fore.WHITE +'========================================')***

***print('')***

***category=int(input(Fore.WHITE +'Choose an option number from the menu :'))***

***if category==1:***

***submenu1()***

***elif category==2:***

***submenu2()***

***elif category==3:***

***submenu3()***

***else:***

***print(Fore.MAGENTA +' ')***

***print('| Thank you for executing our Program |')***

***print('| ~ Regards |')***

***print('| The Team |')***

***print(Fore.MAGENTA +'| |')***

***break***

***break***

***mainmenu()***

***def submenu1():***

***genre=0***

***while genre!=6:***

***print('')***

***print(Fore.WHITE +'========================================')***

***print(Fore.CYAN +' CATALOGUE ')***

***print(Fore.WHITE +'========================================')***

***print(Fore.YELLOW +' 1. Novels')***

***print(Fore.YELLOW +' 2. History')***

***print(Fore.YELLOW +' 3. Biographies')***

***print(Fore.YELLOW +' 4. Thrillers')***

***print(Fore.YELLOW +' 5. Children\'s Books')***

***print(Fore.YELLOW +' 6. Go Back')***

***print(Fore.WHITE +'========================================')***

***print('')***

***genre=int(input('Choose an option from the Catalogue :'))***

***print('')***

***if genre==1:***

***print(Fore.CYAN +' NOVELS ')***

***print(Nov)***

***elif genre==2:***

***print(Fore.CYAN +' HISTORY ')***

***print(His)***

***elif genre ==3:***

***print(Fore.CYAN +' BIOGRAPHIES')***

***print(Bio)***

***elif genre==4:***

***print(Fore.CYAN +' THRILLERS ')***

***print(Thr)***

***elif genre==5:***

***print(Fore.CYAN +' CHILDREN\'S BOOKS ')***

***print(Chi)***

***else:***

***mainmenu()***

***def submenu2():***

***types=0***

***while type!=3:***

***print('')***

***print(Fore.WHITE +'========================================')***

***print(Fore.CYAN +' SALES STATISTICS ')***

***print(Fore.WHITE +'========================================')***

***print(Fore.YELLOW +' 1. Line Graph - Books sold under each')***

***print(Fore.YELLOW +' genre : Month-wise ')***

***print(Fore.YELLOW +' 2. Pie Chart - Total books sold ')***

***print(Fore.YELLOW +' : Genre-wise ')***

***print(Fore.YELLOW +' 3. Go Back ')***

***print(Fore.WHITE +'========================================')***

***print('')***

***types=int(input('Choose an option from Sales Statistics :'))***

***if types==1:***

***linegraph()***

***elif types==2:***

***piechart()***

***else:***

***mainmenu()***

***def submenu3():***

***one=0***

***while one!=6:***

***print(Fore.WHITE +'========================================')***

***print(Fore.CYAN +' READER\'S FAVOURITES ')***

***print(Fore.WHITE +'========================================')***

***print(Fore.YELLOW +' 1. Novels')***

***print(Fore.YELLOW +' 2. History')***

***print(Fore.YELLOW +' 3. Biographies')***

***print(Fore.YELLOW +' 4. Thrillers')***

***print(Fore.YELLOW +' 5. Children\'s Books')***

***print(Fore.YELLOW +' 6. Go Back')***

***print(Fore.WHITE +'========================================')***

***one=int(input(Fore.WHITE +'Choose a genre from the options:'))***

***print('')***

***if one==1:***

***subsubmenu1()***

***elif one==2:***

***subsubmenu2()***

***elif one==3:***

***subsubmenu3()***

***elif one==4:***

***subsubmenu4()***

***elif one==5:***

***subsubmenu5()***

***else:***

***mainmenu()***

***def subsubmenu1():***

***rev1=0***

***while rev1!=3:***

***print(Fore.WHITE+'============================================')***

***print(Fore.CYAN +'The Reader\'s Favourites are:')***

***print(Fore.WHITE+'============================================')***

***print(Fore.MAGENTA +' 1. Jane Eyre by Charlotte Bronte')***

***print(Fore.MAGENTA +' 2. To Kill a Mockingbird by Harper Lee')***

***print(Fore.MAGENTA +' 3. Go Back')***

***print(Fore.WHITE+'============================================')***

***rev1=int(input('Choose a book to view their reviews :'))***

***if rev1==1:***

***nov1 = Image.open('C:/Users/lenovo/OneDrive/Desktop/DT-PROJECT/Images/Jane eyer.webp')***

***print(nov1.format)***

***print(nov1.mode)***

***print(nov1.size)***

***nov1.show()***

***elif rev1==2:***

***nov2 = Image.open('C:/Users/lenovo/OneDrive/Desktop/DT-PROJECT/Images/To kill a mockingbird.jpg')***

***print(nov2.format)***

***print(nov2.mode)***

***print(nov2.size)***

***nov2.show()***

***else:***

***submenu3()***

***def subsubmenu2():***

***rev2=0***

***while rev2!=3:***

***print(Fore.WHITE+'====================================================================')***

***print(Fore.CYAN +'The Reader\'s Favourites are:')***

***print(Fore.WHITE+'====================================================================')***

***print(Fore.MAGENTA +' 1. SAPIENS : A Brief History of Humankind by Yuval Noah Harari')***

***print(Fore.MAGENTA +' 2. India\'s Ancient Past by Ram Sharan Sharma' )***

***print(Fore.MAGENTA +' 3. Go Back')***

***print(Fore.WHITE+'====================================================================')***

***rev2=int(input('Choose a book to view their reviews :'))***

***if rev2==1:***

***his1 = Image.open('C:/Users/lenovo/OneDrive/Desktop/DT-PROJECT/Images/Sapiens.jpg')***

***print(his1.format)***

***print(his1.mode)***

***print(his1.size)***

***his1.show()***

***elif rev2==2:***

***his2 = Image.open('C:/Users/lenovo/OneDrive/Desktop/DT-PROJECT/Images/India\_s ancient past.png')***

***print(his2.format)***

***print(his2.mode)***

***print(his2.size)***

***his2.show()***

***else:***

***submenu3()***

***def subsubmenu3():***

***rev3=0***

***while rev3!=3:***

***print(Fore.WHITE+'=================================================================')***

***print(Fore.CYAN +'The Reader\'s Favourites are:')***

***print(Fore.WHITE+'=================================================================')***

***print(Fore.MAGENTA +' 1. A Diary of a Young Girl by Anne Frank')***

***print(Fore.MAGENTA +' 2. The Story of my Experiments with Truth by Mahatma Gandhi' )***

***print(Fore.MAGENTA +' 3. Go Back')***

***print(Fore.WHITE+'=================================================================')***

***rev3=int(input('Choose a book to view it\'s reviews :'))***

***if rev3==1:***

***bio1 = Image.open('C:/Users/lenovo/OneDrive/Desktop/DT-PROJECT/Images/The diary of a young girl.jpg')***

***print(bio1.format)***

***print(bio1.mode)***

***print(bio1.size)***

***bio1.show()***

***elif rev3==2:***

***bio2 = Image.open('C:/Users/lenovo/OneDrive/Desktop/DT-PROJECT/Images/The story of my experiments with truth.jpg')***

***print(bio2.format)***

***print(bio2.mode)***

***print(bio2.size)***

***bio2.show()***

***else:***

***submenu3()***

***def subsubmenu4():***

***rev4=0***

***while rev4!=3:***

***print(Fore.WHITE +'=======================================')***

***print(Fore.CYAN +'The Reader\'s Favourites are:')***

***print(Fore.WHITE +'=======================================')***

***print(Fore.MAGENTA +' 1. Defend or Die by Tom Marcus' )***

***print(Fore.MAGENTA +' 2. The Darkest Evening by Ann Cleeves')***

***print(Fore.MAGENTA +' 3. Go Back')***

***print(Fore.WHITE +'=======================================')***

***rev4=int(input('Choose a book to view their reviews :'))***

***if rev4==1:***

***thr1 = Image.open('C:/Users/lenovo/OneDrive/Desktop/DT-PROJECT/Images/Defend or die.jpeg')***

***print(thr1.format)***

***print(thr1.mode)***

***print(thr1.size)***

***thr1.show()***

***elif rev4==2:***

***thr2 = Image.open('C:/Users/lenovo/OneDrive/Desktop/DT-PROJECT/Images/The darkest evening.jpeg')***

***print(thr2.format)***

***print(thr2.mode)***

***print(thr2.size)***

***thr2.show()***

***else:***

***submenu3()***

***def subsubmenu5():***

***rev5=0***

***while rev5!=3:***

***print(Fore.WHITE+'==========================================================')***

***print(Fore.CYAN +'The Reader\'s Favourites are:')***

***print(Fore.WHITE+'==========================================================')***

***print(Fore.MAGENTA +' 1. Charlie and the Chocolate Factory by Ronald Dahl')***

***print(Fore.MAGENTA +' 2. The Jungle Book by Rudyard Kipling' )***

***print(Fore.MAGENTA +' 3. Go Back')***

***print(Fore.WHITE+'==========================================================')***

***rev5=int(input('Choose a book to view their reviews :'))***

***if rev5==1:***

***chi1 = Image.open('C:/Users/lenovo/OneDrive/Desktop/DT-PROJECT/Images/Charlie and the chocolate factory.jpg')***

***print(chi1.format)***

***print(chi1.mode)***

***print(chi1.size)***

***chi1.show()***

***elif rev5==2:***

***chi2 = Image.open('C:/Users/lenovo/OneDrive/Desktop/DT-PROJECT/Images/The jungle book.jpg')***

***print(chi2.format)***

***print(chi2.mode)***

***print(chi2.size)***

***chi2.show()***

***else:***

***submenu3()***

***def linegraph():***

***x=['January','February','March','April','May','June']***

***y1=[1254,4587,6213,11000,2154,1023]***

***y2=[4584,3254,1023,5561,7412,3689]***

***y3=[1478,5663,7012,4532,2200,3210]***

***y4=[5466,7023,8020,5046,12504,3625]***

***y5=[4587,1020,3301,6201,8520,4612]***

***plt.plot(x,y1,linestyle="dashed",marker='o',markeredgecolor='c',label='No vels')***

***plt.plot(x,y2,linestyle='-- ',marker='o',markeredgecolor='y',label='History')***

***plt.plot(x,y3,linestyle=':',marker='o',markeredgecolor='r',label='Biograp hies')***

***plt.plot(x,y4,linestyle='- ',marker='o',markeredgecolor='b',label='Thrillers')***

***plt.plot(x,y5,linestyle='dashdot',marker='o',markeredgecolor='g',label='C hildren\'s books')***

***plt.legend()***

***plt.title('Sales')***

***def piechart():***

***Col=[24654,25524,24095,30434,28241]***

***Section=['Novels','History','Biography','Thrillers','Children']***

***col=['cyan','gold','red','blue','green']***

***plt.pie(Col,labels=Section,colors=col)***

***plt.title('Total Sales of Six Months')***

***plt.show()***

***Conclusion:***

The virtual book store represents a transformative evolution in the way individuals discover, access, and engage with literature. This digital platform combines the rich literary experience of traditional book store with convenience and innovation afforded by modern technology. The motivation behind establishing virtual bookstores are rooted in providing readers with unparalleled accessibility, fostering a global literary community, embracing technological advancements and catering to the diverse preferences of a digital age audience.

In embracing the virtual bookstore we witness not only a response to the demands of a technologically driven society but also a commitment to inclusivity, educational support, and the preservation of the jiy of reading. As these platforms continue to evolve, they have the potential to redefine the landscape of literature, making it more accessible, dynamic and interconnected than ever before.