#Libary Management  
# we were ask to write program of libary that allows the user it borrow/return a books and to add/edit/delete a book from the list  
#created by Nneoma Onwe  
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class Library:  
 def \_\_init\_\_(self, listofBooks):  
 self.books = listofBooks  
# def displayAvaibalebooks allow program to disply a list of books and to check if the book is avaiblie or not and to print it  
 def displayAvailableBooks(self):  
 print(f"\n{len(self.books)} BOOKS ARE AVAILABLE: ")  
 for book in self.books:  
 print(" ♦-- " + book)  
 print("\n")  
  
# def requestBook allow program to borrow book for the list  
 def requestBook(self, name, bookname):  
 if bookname not in self.books:  
 print(  
 f"{bookname} BOOK IS NOT AVAILABLE FOR EITHER TAKEN BY SOMEONE ELSE, WAIT UNTIL HE RETURNED.\n")  
 else:  
 track.append({name: bookname})  
 print("BOOK ISSUED : THANK YOU KEEP IT WITH CARE AND RETURN ON TIME.\n")  
 self.books.remove(bookname)  
  
# def returnBook allow program to return book to the list  
 def returnBook(self, bookname):  
 print("BOOK RETURNED : THANK YOU! \n")  
 self.books.append(bookname)  
  
# def addBook allow program to add book to the list and print the new list  
 def addBook(self, bookname):  
 print("BOOK ADD : THANK YOU VERY MUCH, HAVE A GREAT DAY AHEAD.\n")  
 self.books.append(bookname)  
  
  
class Student():  
# def requestBook allow program to request book to the list and ask the user if they want to borrow a book and ask for ther name  
 def requestBook(self):  
 print("You want to borrow book!")  
 self.book = input("Enter name of the book you want to borrow: ")  
 return self.book  
# def returnBook allow program to return book to the list and ask the user if they want to ruturn a book and ask for ther name and also ask the nme of the book you want to return  
 def returnBook(self):  
 print("You want to return book!")  
 name = input("Enter your name: ")  
 self.book = input("Enter name of the book you want to return: ")  
 if {name: self.book} in track:  
 track.remove({name: self.book})  
 return self.book  
#def addBook allow program to add book to the list and ask the user if they want to add a book also to enter name of book they want to add and print the new list of the books  
 def addBook(self):  
 print("Okay! you want to Add book!")  
 self.book = input("Enter name of the book you want to add: ")  
 return self.book  
  
  
if \_\_name\_\_ == "\_\_main\_\_":  
# list of of books  
 Delhilibrary = Library(  
 ["vistas", "invention", "rich&poor", "indian", "macroeconomics", "microeconomics"])  
 student = Student()  
 track = []  
#meun  
 print("\t\t\t\t\t\t\t♦♦♦♦♦♦♦ WELCOME TO THE LIBRARY MANGEMENTS ♦♦♦♦♦♦♦\n")  
 print(  
 """CHOOSE WHAT YOU WANT TO DO:-\n1. Listing all books\n2. Borrow books\n3. Return books\n4. Add books\n5. Track books\n6. exit \n""")  
# user has to enter a 1 to 4 on the menu page  
 while (True):  
 # print(track)  
 try:  
 usr\_response = int(input("Enter your choice: "))  
  
 if usr\_response == 1: # listing  
 Delhilibrary.displayAvailableBooks()  
 elif usr\_response == 2: # borrow  
 Delhilibrary.requestBook(  
 input("Enter your name: "), student.requestBook())  
 elif usr\_response == 3: # return  
 Delhilibrary.returnBook(student.returnBook())  
 elif usr\_response == 4: # add  
 Delhilibrary.addBook(student.addBook())  
 elif usr\_response == 5: # track  
 for i in track:  
 for key, value in i.items():  
 holder = key  
 book = value  
 print(f"{book} book is taken/issued by {holder}.")  
 print("\n")  
 if len(track) == 0:  
 print("NO BOOKS ARE ISSUED!. \n")  
  
 elif usr\_response == 6: # exit  
 print("THANK YOU ! \n")  
 exit()  
 else:  
 print("ICORRECT INPUT! \n")  
 except Exception as e: # catch errors  
 print(f"{e}---> ICORRECT INPUT! \n")