**LIBRARY MANAGEMENT SYSTEM**

**CODE:**

class Library:

def \_\_init\_\_(self, books):

self.books = books

def show\_avail\_books(self):

print('Our Library Can Offer You The Following Books:')

print('================================================')

for book, borrower in self.books.items():

if borrower == 'Free':

print(book)

def lend\_book(self, requested\_book, name):

if self.books[requested\_book] == 'Free':

print(

f'{requested\_book} has been marked'

f' as \'Borrowed\' by: {name}')

self.books[requested\_book] = name

return True

else:

print(

f'Sorry, the {requested\_book} is currently'

f' on loan to: {self.books[requested\_book]}')

return False

def return\_book(self, returned\_book):

self.books[returned\_book] = 'Free'

print(f'Thanks for returning {returned\_book}')

class Student:

def \_\_init\_\_(self, name, library):

self.name = name

self.books = []

self.library = library

def view\_borrowed(self):

if not self.books:

print('You haven\'t borrowed any books')

else:

for book in self.books:

print(book)

def request\_book(self):

book = input(

'Enter the name of the book you\'d like to borrow >> ')

if self.library.lend\_book(book, self.name):

self.books.append(book)

def return\_book(self):

book = input(

'Enter the name of the book you\'d like to return >> ')

if book in self.books:

self.library.return\_book(book)

else:

print('You haven\'t borrowed that book, try another...')

def create\_lib():

books = {

'The Last Battle': 'Free',

'The Hunger Games': 'Free',

'Cracking the Coding Interview': 'Free'

}

library = Library(books)

student\_example = Student('Your Name', library)

while True:

print('''

==========LIBRARY MENU===========

1. Display Available Books

2. Borrow a Book

3. Return a Book

4. View Your Books

5. Exit'''

)

choice = int(input('Enter Choice: '))

if choice == 1:

print()

library.show\_avail\_books()

elif choice == 2:

print()

student\_example.request\_book()

elif choice == 3:

print()

student\_example.return\_book()

elif choice == 4:

print()

student\_example.view\_borrowed()

elif choice == 5:

print('Goodbye')

exit()

if \_\_name\_\_ == '\_\_main\_\_':

create\_lib()

OUTPUT: Python 3.9.1 (v3.9.1:1e5d33e9b9, Dec 7 2020, 12:10:52)

[Clang 6.0 (clang-600.0.57)] on darwin

Type "help", "copyright", "credits" or "license()" for more information.

>>>

===== RESTART: /Users/vamsieluri/Desktop/JMJ PROJECTS/Library Management.py ====

==========LIBRARY MENU===========

1. Display Available Books

2. Borrow a Book

3. Return a Book

4. View Your Books

5. Exit

Enter Choice: 1

Our Library Can Offer You The Following Books:

================================================

The Last Battle

The Hunger Games

Cracking the Coding Interview

==========LIBRARY MENU===========

1. Display Available Books

2. Borrow a Book

3. Return a Book

4. View Your Books

5. Exit

Enter Choice: 2

Enter the name of the book you'd like to borrow >> The Hunger Games

The Hunger Games has been marked as 'Borrowed' by: Your Name

==========LIBRARY MENU===========

1. Display Available Books

2. Borrow a Book

3. Return a Book

4. View Your Books

5. Exit

Enter Choice: 3

Enter the name of the book you'd like to return >> The Hunger Games

Thanks for returning The Hunger Games

==========LIBRARY MENU===========

1. Display Available Books

2. Borrow a Book

3. Return a Book

4. View Your Books

5. Exit

Enter Choice: 5

Goodbye

>>>