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Course: Python With Ai

Teacher Name: Miss Qirrat

PROJECT NAME:

MINI LIBRARY MANAGEMENT SYSTEM

CODE:

```python
available_books = (

    "python basics",

    "data structures",

    "operating systems",

    "database systems",

    "computer networks"

)


# issued books ka record (start mein empty rhega)

issued_books = set()


while True:

    print("\n===== library menu =====")

    print("1. show available books")

    print("2. issue a book")

    print("3. return a book")

    print("4. show issued books")

    print("5. exit")


    choice = input("enter your choice (1-5): ")


    # available books show karna

    if choice == "1":

        print("\navailable books:")

        book_found = False
```

```python
    for book in available_books:

        if book not in issued_books:

            print("-", book)

            book_found = True


    if not book_found:

        print("no books available at the moment")


# book issue karna

elif choice == "2":

    book_name = input("enter book name to issue: ").lower()


    if book_name in available_books:

        if book_name not in issued_books:

            issued_books.add(book_name)

            print("book issued successfully")

        else:

            print("this book is already issued")

    else:

        print("book not found in library")


# book return karna

elif choice == "3":

    if not issued_books:

        print("no books are currently issued")

    else:

        book_name = input("enter book name to return: ").lower()
```

```python
        if book_name in issued_books:

            issued_books.remove(book_name)

            print("book returned successfully")

        else:

            print("this book was not issued")


# issued books show karna

elif choice == "4":

    if not issued_books:

        print("\nno books are currently issued")

    else:

        print("\nissued books:")

        for book in issued_books:

            print("-", book)


# program exit

elif choice == "5":

    print("thank you for using library system")

    break


# invalid input

else:

    print("invalid choice, please try again")
```

OUTPUT:

```
===== library menu =====
1. show available books
2. issue a book
3. return a book
4. show issued books
5. exit
enter your choice (1-5): 1

available books:
 - python basics
 - data structures
 - operating systems
 - database systems
 - computer networks
```

```
===== library menu =====
1. show available books
2. issue a book
3. return a book
4. show issued books
5. exit
enter your choice (1-5): 2
enter book name to issue: discrete
book not found in library
```

```
Enter book name to issue: data structures
Book issued successfully

===== LIBRARY MENU =====
1. Show available books
2. Issue a book
3. Return a book
4. Show issued books
5. Exit
Enter your choice (1-5):
```

```
Enter your choice (1-5): 3

Issued books:
 - data structures

Enter book name to return: data structures
Book returned successfully
```

```
Enter your choice (1-5): 4

No books are currently issued

===== LIBRARY MENU =====
1. Show available books
2. Issue a book
3. Return a book
4. Show issued books
5. Exit
Enter your choice (1-5): 5
Thank you for using the library system
```