class Library:

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

self.books = books

def display\_available\_books(self):

print("Available books:")

for book in self.books:

if book.is\_available():

print(book)

def lend\_book(self, book\_title, borrower):

for book in self.books:

if book.title == book\_title and book.is\_available():

book.borrower = borrower

book.set\_availability(False)

print(f"{book\_title} has been lent to {borrower}")

return

print("Sorry, the book is not available.")

def return\_book(self, book\_title):

for book in self.books:

if book.title == book\_title and not book.is\_available():

book.set\_availability(True)

book.borrower = None

print(f"{book\_title} has been returned.")

return

print("Invalid book title or the book is already available.")

class Book:

def \_\_init\_\_(self, title, author):

self.title = title

self.author = author

self.available = True

self.borrower = None

def \_\_str\_\_(self):

status = "Available" if self.available else f"Borrowed by {self.borrower}"

return f"{self.title} by {self.author} - {status}"

def is\_available(self):

return self.available

def set\_availability(self, status):

self.available = status

if \_\_name\_\_ == "\_\_main\_\_":

book1 = Book("Harry Potter", "J.K. Rowling")

book2 = Book("Lord of the Rings", "J.R.R. Tolkien")

book3 = Book("The Great Gatsby", "F. Scott Fitzgerald")

library = Library([book1, book2, book3])

library.display\_available\_books()

library.lend\_book("Harry Potter", "John Doe")

library.display\_available\_books()

library.return\_book("Harry Potter")

library.display\_available\_books()