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3.A)

MAX = 5

stack = []

def push():

if len(stack) == MAX:

print("Stack is full. Cannot add more books.")

else:

book = input("Enter book title to push: ")

stack.append(book)

print(f'"{book}" has been added to the stack.')

def pop():

if not stack:

print("Stack is empty. No book to pop.")

else:

book = stack.pop()

print(f'"{book}" has been removed from the stack.')

def peek():

if not stack:

print("Stack is empty. No book to display.")

else:

print(f'Top book: "{stack[-1]}"')

def display():

if not stack:

print("Stack is empty.")

else:

print("Books in the stack (Top to Bottom):")

for i in range(len(stack)-1, -1, -1):

print(f"{i+1}. {stack[i]}")

while True:

print("\n--- Stack Operations Menu ---")

print("1. Push (Add Book)")

print("2. Pop (Remove Book)")

print("3. Peek (View Top Book)")

print("4. Display Stack")

print("5. Exit")

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

if choice == '1':

push()

elif choice == '2':

pop()

elif choice == '3':

peek()

elif choice == '4':

display()

elif choice == '5':

print("Exiting stack program. Goodbye!")

break

else:

print("Invalid choice. Please try again.")