***Library Management system***

; Program Description: Library Management System

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.386

.model flat,stdcall

.stack 4096

INCLUDE irvine32.inc

ExitProcess PROTO, dwExitCode:DWORD

.data

booksCount DWORD 0

booksArray DWORD 100 DUP(?) ; Array to store book titles (assuming maximum 100 books)

promptAddBook BYTE "Enter the title of the book to add: ", 0

promptDeleteBook BYTE "Enter the title of the book to delete: ", 0

promptSearchBook BYTE "Enter the title of the book to search: ", 0

msgBookNotFound BYTE "Book not found.", 0

msgBookDeleted BYTE "Book deleted successfully.", 0

msgBookAdded BYTE "Book added successfully.", 0

.code

AddBook PROC

mov edx, OFFSET promptAddBook

call WriteString

mov edx, OFFSET booksArray

add edx, booksCount

call ReadString

mov edx, OFFSET booksArray

add edx, booksCount

mov ebx, eax

mov [edx], ebx

inc booksCount

mov edx, OFFSET msgBookAdded

call WriteString

ret

AddBook ENDP

DeleteBook PROC

mov edx, OFFSET promptDeleteBook

call WriteString

mov edx, OFFSET booksArray

mov ebx, 0

search\_loop:

mov eax, [edx + ebx \* 4]

cmp eax, 0

je book\_not\_found

mov ecx, OFFSET promptSearchBook

call WriteString

call ReadString

cmp eax, ebx

je found\_delete

inc ebx

jmp search\_loop

found\_delete:

mov eax, ebx

mov edx, OFFSET booksArray

add edx, eax

mov ebx, OFFSET msgBookDeleted

call WriteString

mov ecx, booksCount

sub ecx, ebx

dec ecx

mov ebx, eax

add ebx, 4

add edx, 4

sub ecx, eax

add ecx, ecx

mov esi, ecx

mov ecx, ebx

mov edi, edx

rep movsb

dec booksCount

ret

book\_not\_found:

mov edx, OFFSET msgBookNotFound

call WriteString

ret

DeleteBook ENDP

SearchBook PROC

mov edx, OFFSET promptSearchBook

call WriteString

mov edx, OFFSET booksArray

mov ebx, 0

search\_loop:

mov eax, [edx + ebx \* 4]

cmp eax, 0

je book\_not\_found

mov ecx, OFFSET promptSearchBook

call WriteString

call ReadString

cmp eax, ebx

je found\_book

inc ebx

jmp search\_loop

found\_book:

mov edx, OFFSET booksArray

add edx, ebx

call WriteString

ret

book\_not\_found:

mov edx, OFFSET msgBookNotFound

call WriteString

ret

SearchBook ENDP

main PROC

call AddBook

call AddBook

call DeleteBook

call SearchBook

INVOKE ExitProcess,0

main ENDP

END main