System Software Laboratory

Title: Implementation of Assembler Pass 01 and Pass 02 Batch: A1
Marks: 06 Date: 10/09/18

Pass-1 Assembler

Write a C program to implement Pass-01 Algorithm of a 2 pass assembler. Create intermediate file which includes the Location Counter values along with the program given and tables like SYMTAB. The input file consists of following SIC machine code.

Source statement

COPY	START	1000
FIRST	STL	RETADR
CLOOP	JSUB	RDREC
	LDA	LENGTH
	COMP	ZERO
	JEQ	ENDFIL
	JSUB	WRREC
	J	CLOOP
ENDFIL	LDA	EOF
	STA	BUFFER, X
	LDA	THREE
	STA	LENGTH
	JSUB	WRREC
	LDL	RETADR
	RSUB	
EOF	BYTE	C ’EOF’
THREE	WORD	3
ZERO	WORD	0
RETADR	RESW	1
LENGTH	RESW	8
BUFFER	RESB	4096
TEMP	BYTE	X‘78’
	END	

(Given Address of RDREC – 2039 and WRREC – 2061)
(Use various functions to read from file, write into file)

Pass-2 Assembler

Generate the Object program for the above given input using the results obtained from pass1.