ASSIGNMENT NUMBER: A - 04

TITLE : Pass II of two pass macro processor .

PROBLEM STATEMENT : WRITE A JAVA PROGRAM FOR PASS-II OF A TWO-PASS MACRO-PROCESSOR. THE OUTPUT OF ASSIGNMENT-3 (MNT, MDT AND FILE WITHOUT ANY MACRO DEFINITIONS) SHOULD BE INPUT FOR THIS ASSIGNMENT.

OBJECTIVES:
- Understand the macro expansion in pass II.
- Replace the formal parameters with actual parameters.
- Understand the use of data structures developed in pass I.

OUTCOMES:
The students will be able to
- Expand the macro call statements
- Link the actual parameters with the formal parameter.
- Demonstrate the use of various data structures in Pass II which are created in Pass I.

THEORY:
Macro processing feature allows the programmer to write shorthand version of a program (modular programming). The macro processor replaces each macro invocation with the corresponding sequence of statements i.e. macro expansion.
Tasks done by the macro processor
- Recognize macro definitions
- Save the macro definition recognize macro calls
- Expand macro calls

Tasks in pass I of a two pass macro processor
- Recognize macro definitions
- Save the macro definition(Create MDT,MNT,ALA)Perform processing of assembler directives(e.g. BYTE, RESW directives can affect address assignment)
- Create intermediate code file.

Steps to do /algorithm:
- Read .asm file.
- Create MNT and MDT.
- Create ALA.
- Create intermediate code file.

CONCLUSION : By performing this experiment we have successfully implemented pass II of two pass macro processor.