

ASSIGNMENT NUMBER: A -03

TITLE : Pass I of two pass macro processor.

PROBLEM STATEMENT : Design suitable data structures and implement pass-I of a two-pass macro processor using OOP features in Java.

OBJECTIVES:

- Identify and create the data structures required in the design of macro processor.
- Learn parameter processing in macro.

OUTCOMES:

The students will be able to

- Identify and create the MDT, MNT
- Pass the parameters to the macro
- To separate the macro definitions from the source code

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 : We have successfully implemented pass I of two pass macro processor.