User Manual

1.Prerequisites: Install JDK

2. Saving and Compiling the Code

1. **Save the Code**:

    o   Write your Java code in any text editor .

    o   Save the file with a .java extension. Example: TwoPassAssembler.java.

2. **Compiling the Code**: javac TwoPassAssembler.java

3. **Running the Code**: java TwoPassAssembler

3. Properties of Key Buttons

- **Assemble Button:** When clicked, it assembles the source code entered in the input field and generates the object code.

- **ReAssemble Button:** Clears both the input source code and the object code areas for re-assembly.

- **Combo Box (Intermediate Code, SymTab, OpTab):** This dropdown allows you to choose and view different tables related to the assembly process, which will be displayed in the designated area below.

4. Input Code Format

The source code must follow a strict format, typically consisting of three columns:

1. **Label:** Optional identifier for the statement.

2. **Opcode:** Operation code (instruction) for the assembler.

3. **Operand:** Data or address upon which the operation is performed.

- Enter the source code in the Input Source Code panel on the left side of the interface, maintaining proper spacing and format for each line.

5. Steps to Use the GUI

1. **Entering the Source Code:**Type or paste your assembly language code in the Input Source Code text area.

2. **Assembling the Code:**Click the Assemble button. The assembled object code will appear in the Object Code panel on the right.

3. **Viewing Additional Tables:**

    o   Use the Combo Box under "Select an Option" to view different files related to the assembly process:

       ▪   Intermediate Code: Shows the intermediate results after the first pass of the assembler.

- SymTab: Displays the symbol table generated during the assembly process.

- OpTab: Displays the operation code (opcode) table used in the assembler.

The content will be displayed in the area below the combo box.

4. **ReAssembling**: Click the ReAssemble button to reset both the source code and object code fields for a fresh run.