



# SNS COLLEGE OF TECHNOLOGY



Coimbatore-36.

**An Autonomous Institution**

Accredited by NBA – AICTE and Accredited by NAAC – UGC with ‘A++’ Grade  
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

**COURSE NAME : Automata Theory and Compiler Design**  
**III YEAR/ V SEMESTER**

**UNIT – II INTRODUCTION AND LEXICAL ANALYSIS**

**Topic: Introduction to Compiling and Compiler**

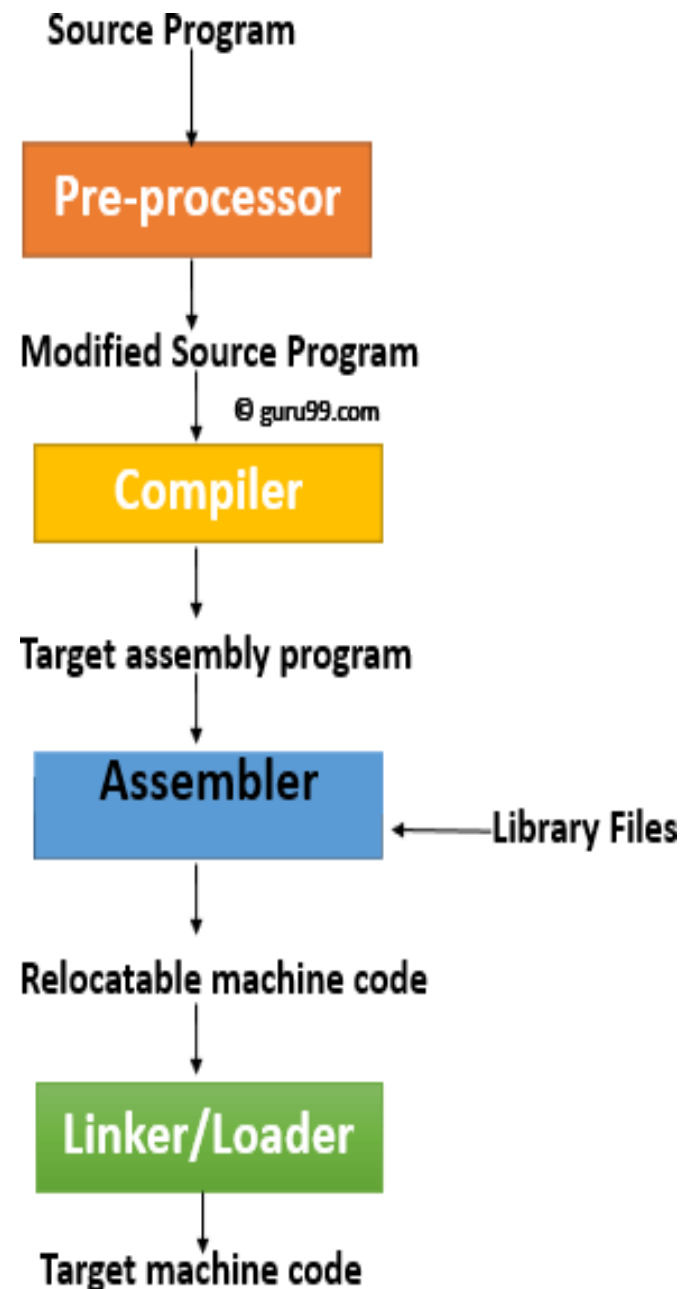
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Department of Computer Science and Engineering

# *Cousins of Compiler / Language Processing System*

**Preprocessor  
Compiler  
Assembler  
Linker**





# Introduction to Compiling

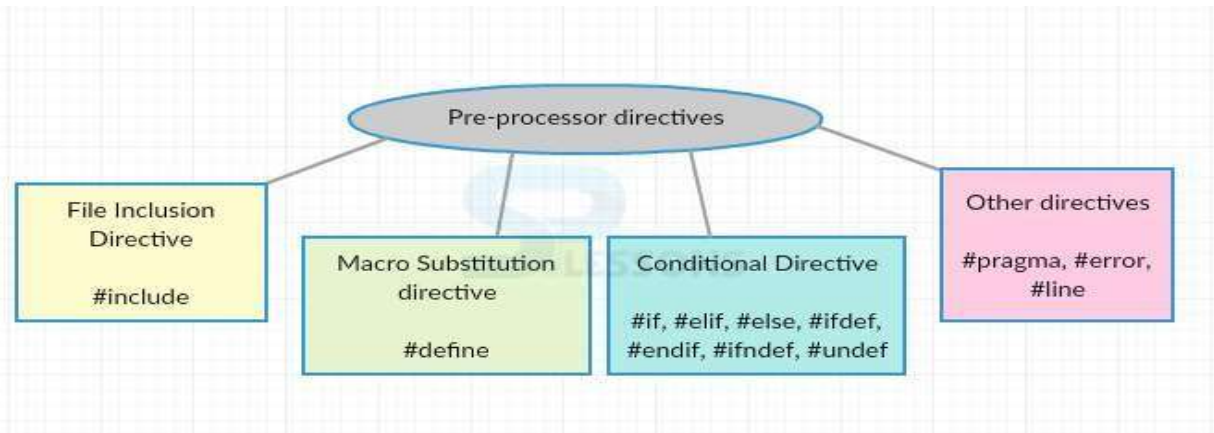
## Preprocessor

- Preprocessor processes source program before it is passed to compiler.



- Produce a source code file with the preprocessing commands properly sorted out.

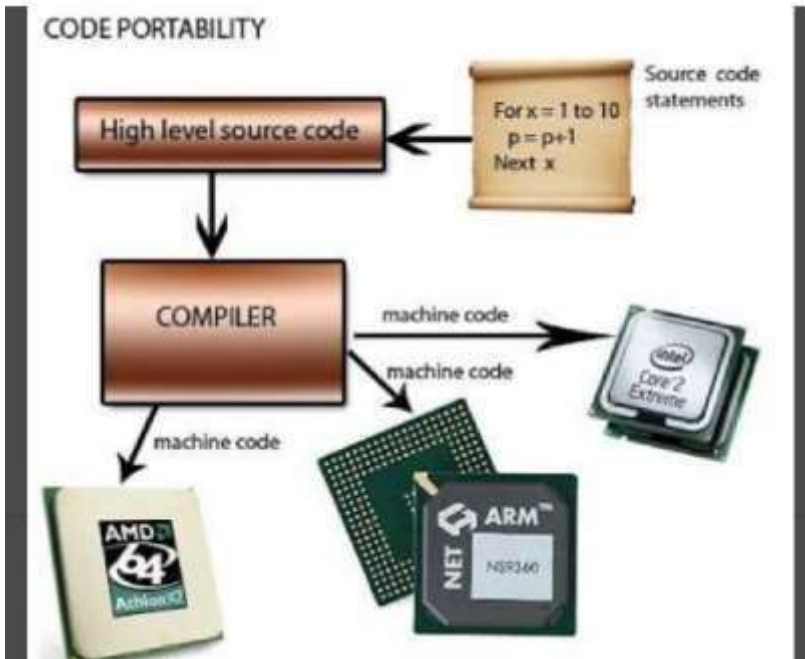
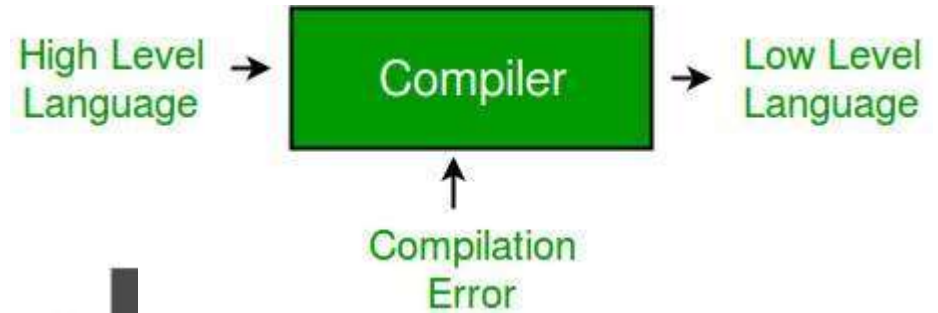
## *Pre-processor Directives*





# Introduction to Compiling

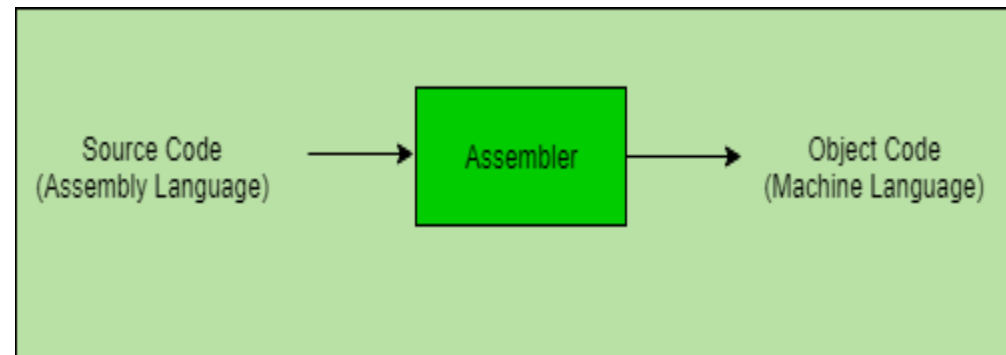
- Compiler



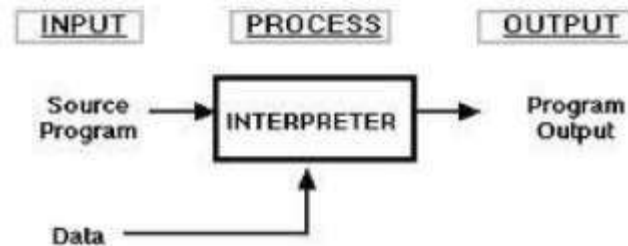


# *Introduction to Compiling*

- Assembler - Translate the program written in Assembly language into machine code



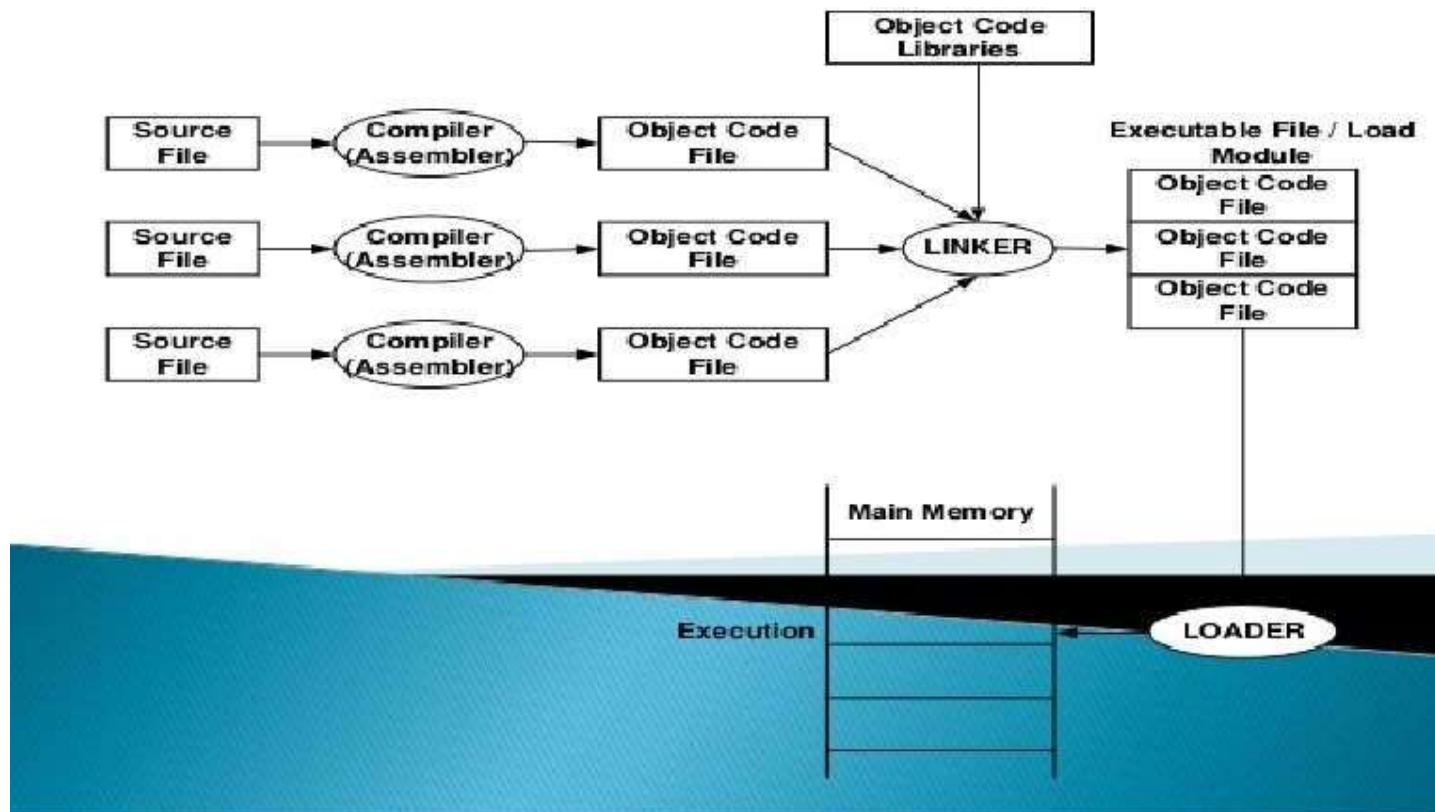
## Interpreter



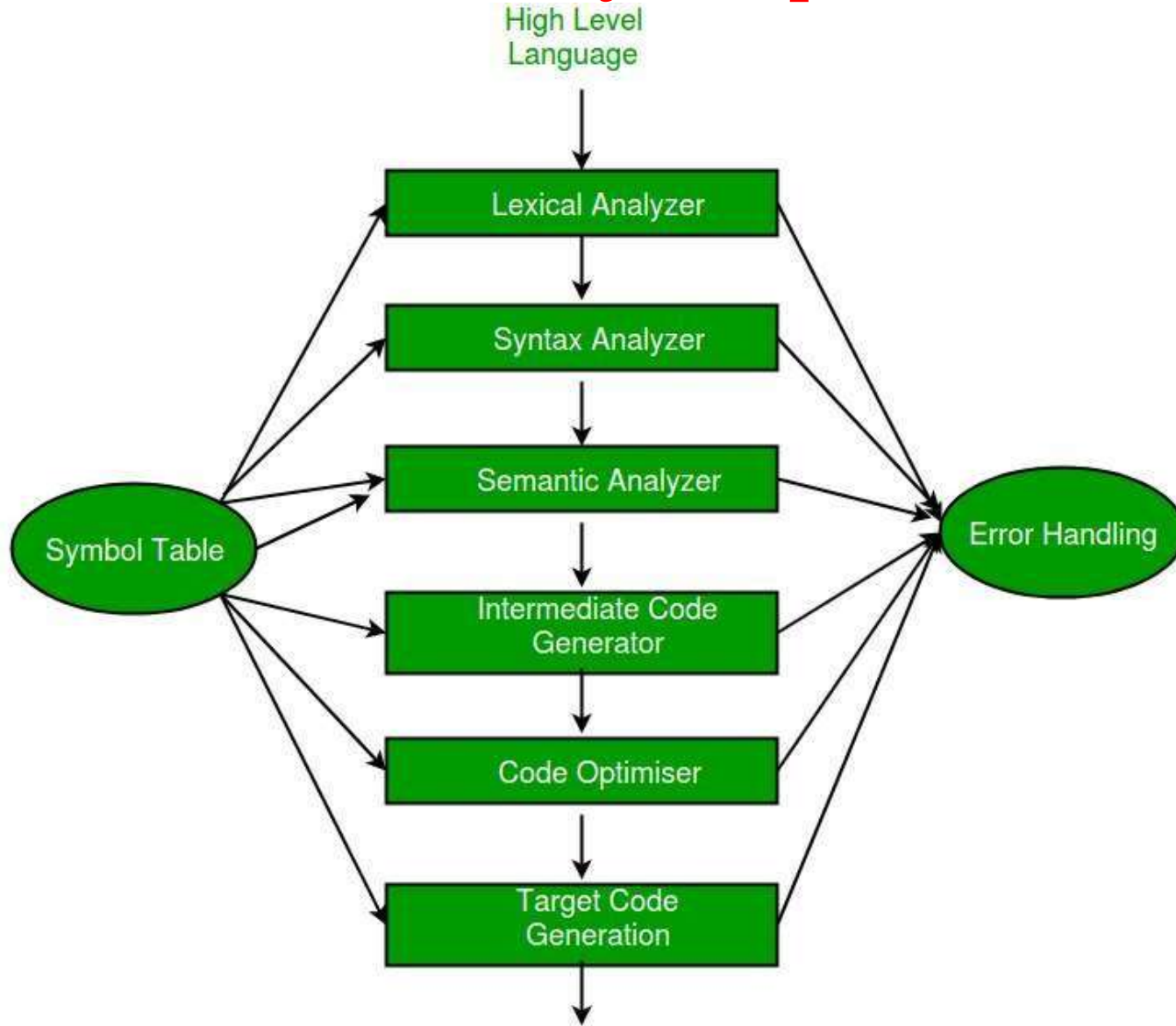


# Introduction to Compiling

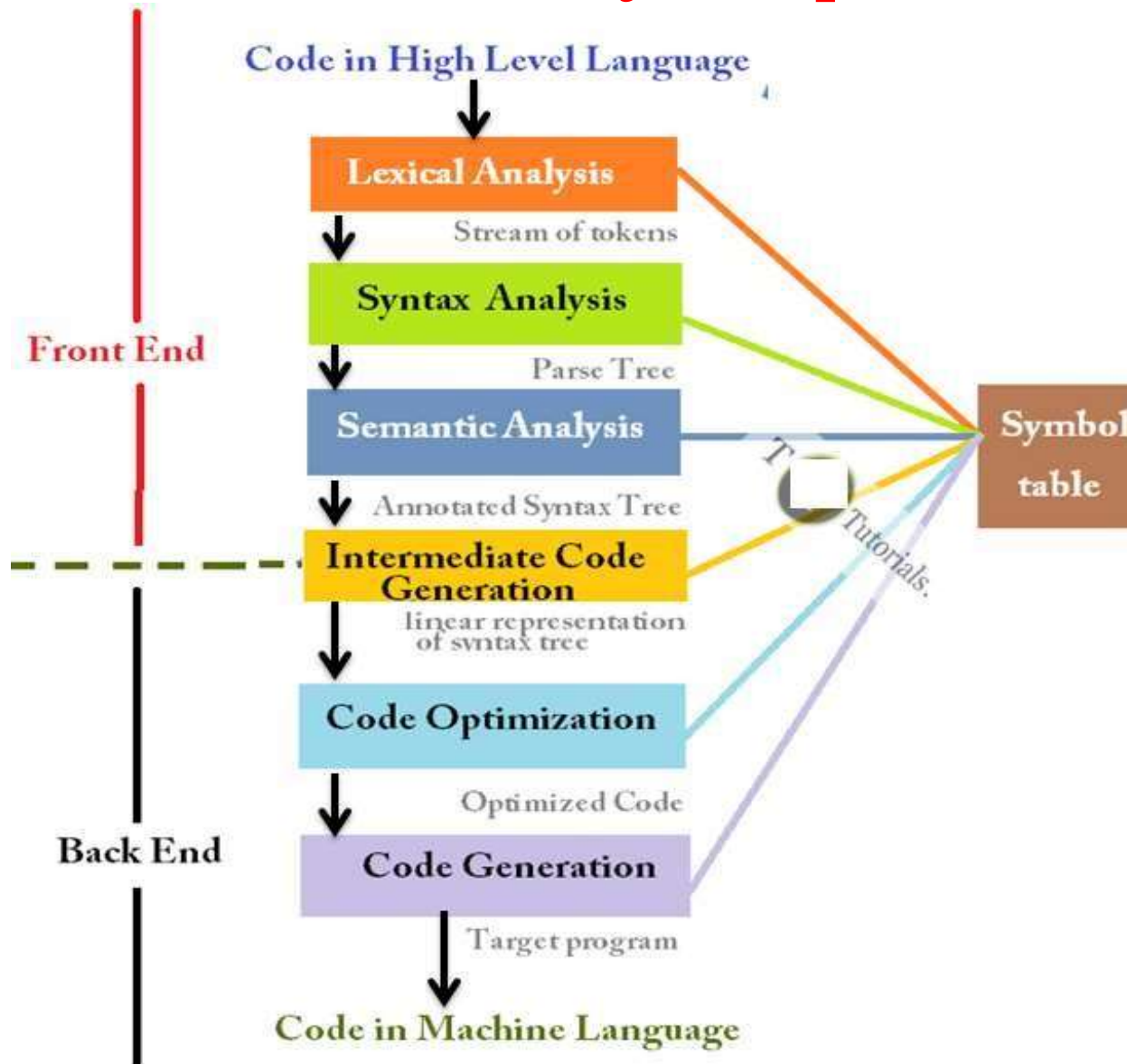
- Loader & Linker



# Phases of Compiler



# Phases of Compiler





# *References*

- John E. Hopcroft and Rajeev Motwani and Jeffrey D. Ullman, “Introduction to Automata Theory, Languages and Computation”, Second Edition, Pearson Education, New Delhi, (2007) (UNIT-I )
- Linz P. An introduction to formal languages and automata. Sixth edition, Jones and Bartlett Publishers; 2016.(UNIT-I)
- [Ramaiah k. Dasaradh](#) “Introduction to Automata and Compiler Design “ First Edition ,Prentice Hall India Learning Private Limited(2011)( UNIT-I to V)