



Unit I –Part 02 (Computer Basics)



Lecture Slide

AS2023





Objectives

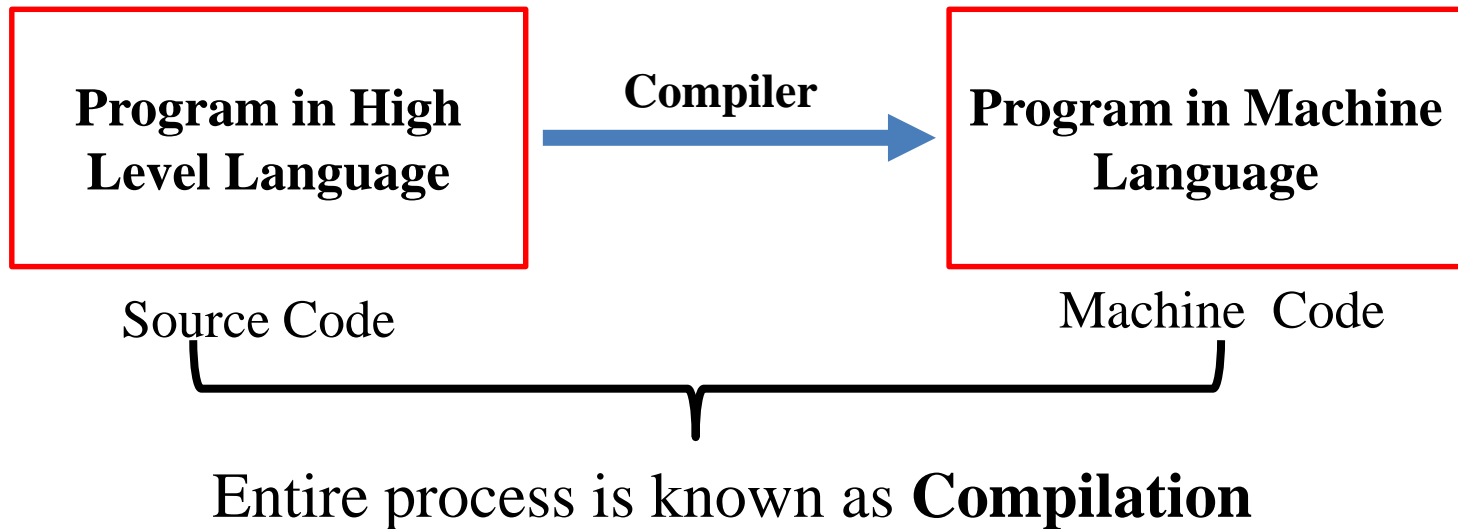


By the end of this session, students will be able to:

- Illustrate the process of compilation
- Define linker and loader
- Explain the functions of loader
- Explain the concepts of storage unit
- Convert from one storage unit to other units
- Define operating system
- Differentiate various types of OS



Compilation





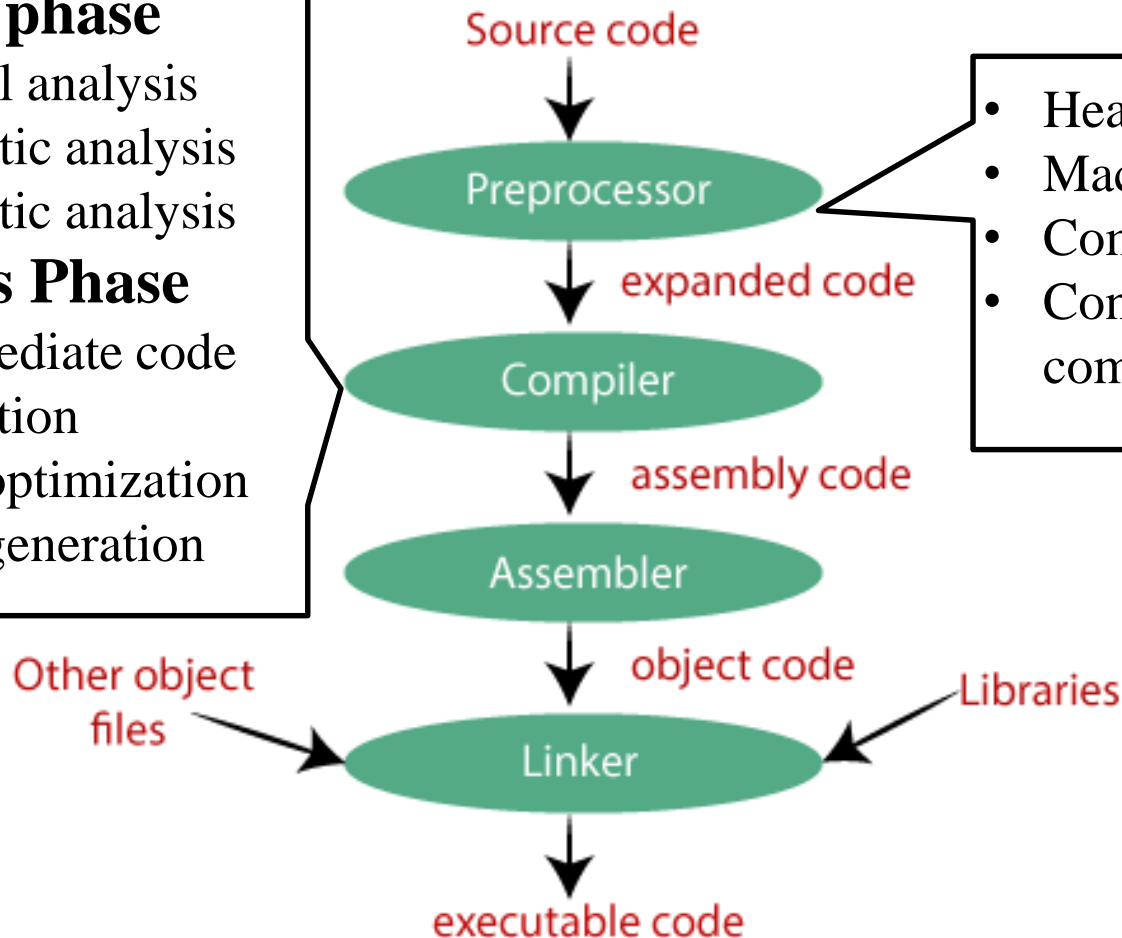
Compilation (cont..)

- **Analysis phase**

- Lexical analysis
- Syntactic analysis
- Semantic analysis

- **Synthesis Phase**

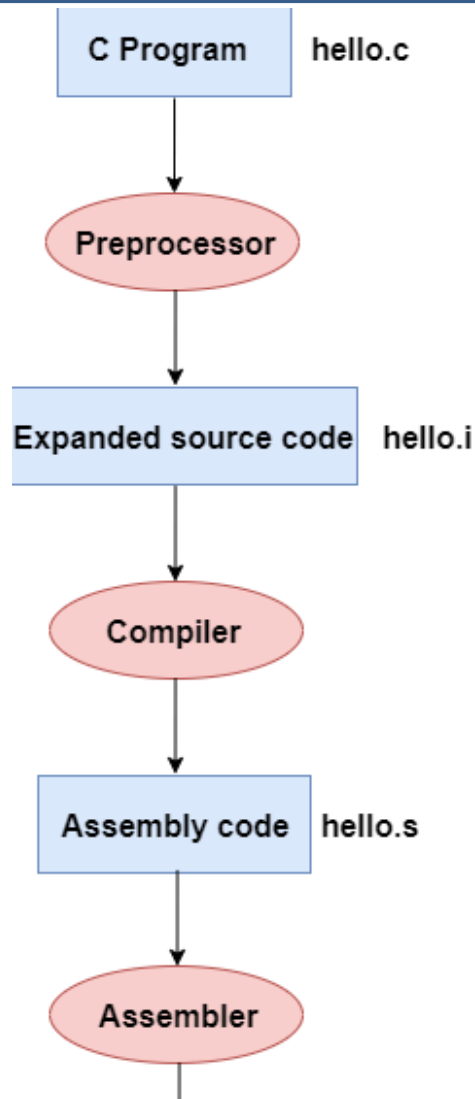
- Intermediate code generation
- Code optimization
- Code generation



- Header file inclusion
- Macro substitution
- Comment removal
- Conditional compilation

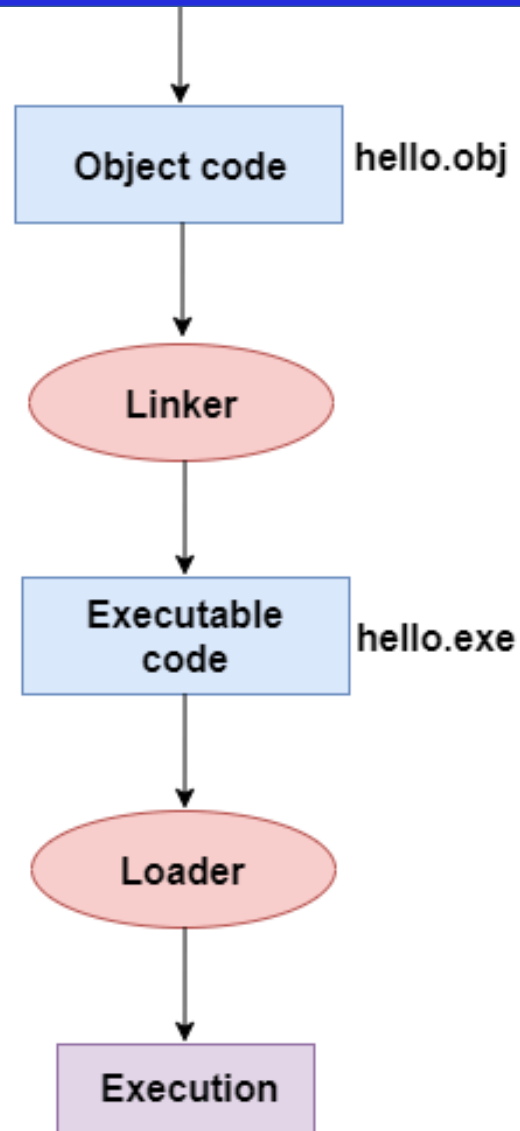


Compilation (cont..)





Compilation (cont..)





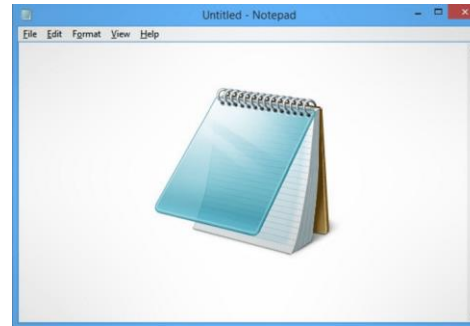
Compilation (Cont..)



- **Linker**
 - A program that links several object modules and libraries to form a single, coherent program.
- **Loader**
 - Loads executable file into main memory and starts execution
 - **Functions:** Allocation, Linking, Relocation & Loading



Editor





Operating System

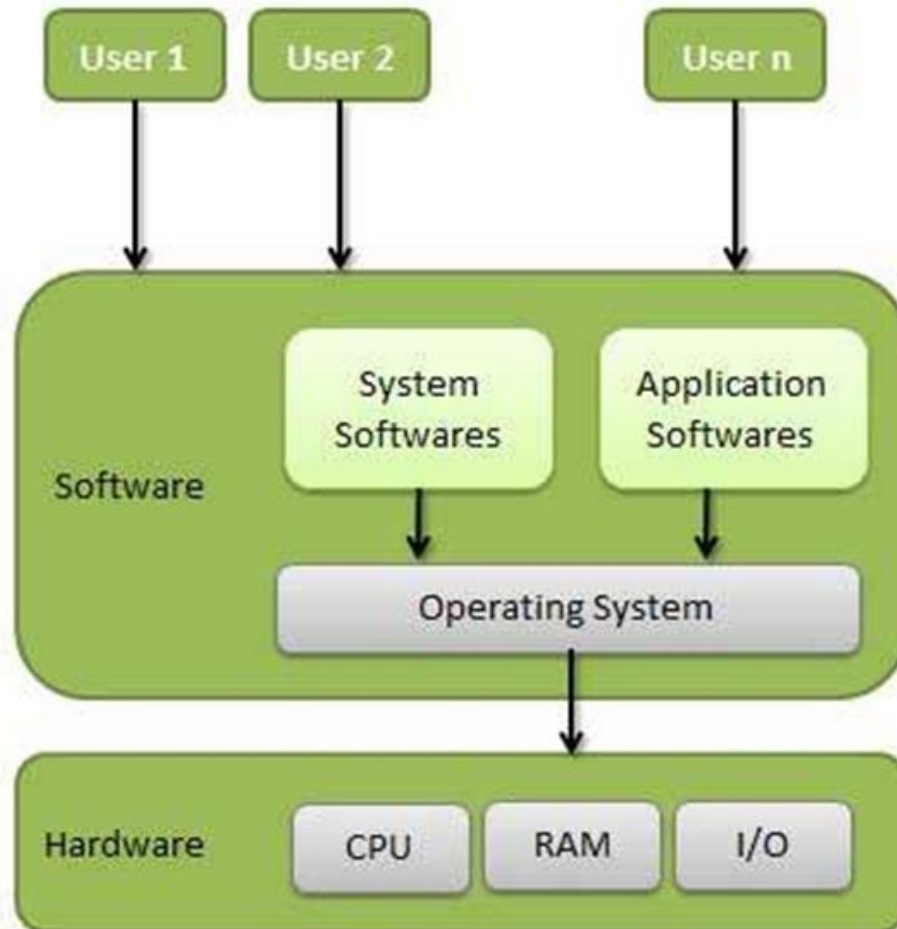


- Program that acts as interface between user and hardware
- Software that manages computer hardware and software resources and provides common services for computer programs.





Operating System (cont..)





Types of OS



- Broadly can be of following types
 - Batch Operating System
 - Multitasking/Time Sharing OS
 - Multiprocessing OS
 - Real Time OS
 - Distributed OS
 - Network OS
 - Mobile OS



Home Assignment



- Write brief notes on history of OS.
- Write short notes on different types of Operating system with some examples.
- What are the functions of OS?



Thank you