## **OS Fundamentals**

- Introduction
- UNIX Architecture
- Logging In
- Files and Directories
- Input and Output
- Programs and Processes
- Error Handling
- User Identification
- Time Values
- System Calls and Library Functions
- Memory Layout
- Call Stack
- CPU Scheduling
- NullReferenceException
- Organize the code into Header and Source files
- Understanding Memory allocations, Heap Memory Management, Memory Leaks. GC Sample code with C++, Java
- Stack Memory, Stack overflow, Stack Corruption, Stack Registers Sample code with C++,Java
- Paging Concepts and Page Tables
- Static and Dynamic Libraries and Linking