

### **Author's message**

Welcome to our book “Simplified way to understand OPERATING SYSTEM. We have tried to cover all issues regarding operating system in a simplified form. The book offers a proper guidance to understanding Operating System within a short time. It focuses on the most important areas of Computer Science including ways of building your Computer System, important services provided by an Operating System and how the Computer Operating System performs these services etc. The book contains several chapters as units. The units are the key to helping you improve your skills as a student. By reading this book, you'll find that you are enjoying learning more than ever before. As a result, you will feel more confident in your classes and be better prepared to demonstrate your acquired knowledge.

We invite you to use this book “Simplified way to understand OPERATING SYSTEM” at undergraduate level. As you go through each unit, you will open the doors to success in University level as well as to many other areas in your life. Good luck and enjoy the journey!  
God bless you.

### **Acknowledgments**

Dear God, The successful completion of this book could not have been achieved without your presence .We could not have done this alone. We hereby are very grateful for all the knowledge, energy and focus you provided us with. This has been achieved through many years of hard work, which came on paper to help others. During this time, we have gone through many problems and challenges. I am thankful to all our best friends for their moral support and a big thanks to God for providing us with the strength and knowledge.

### **Dedication**

#### **Anil Kumar**

Finally, I would I like to dedicate all my success of this book writing to my dearest late mother who was a great inspiration in my life.

## **Abstract**

Modern general-purpose computers, including personal computers and mainframes, have an Operating System to run other programs, such as application software. Examples of operating systems for personal computers include Microsoft Windows, Mac OS (and Darwin), UNIX, and Linux.

The lowest level of any Operating System is its kernel. This is the first layer of software loaded into memory when a system boots or starts up. The kernel provides access to various common core services to all other system and application programs. These services include, but are not limited to: disk access, memory management, task scheduling, and access to other hardware devices.

As well as the kernel, an Operating System is often distributed with tools for programs to display and manage a graphical user interface as well as utility programs for tasks such as managing files and configuring the operating system. They are also often distributed with application software that does not relate directly to the operating system's core function, but which the Operating System distributor finds advantageous to supply with the Operating System.

The delineation between the Operating System and application software is not precise, and is occasionally subject to controversy. From commercial or legal points of view, the delineation can depend on the contexts of the interests involved.

Like the term "Operating System " itself, the question of what exactly should form the "kernel" is subject to some controversy, with debates over whether things like file systems should be included in the kernel.

Operating Systems are used on most, but not all, computer systems. The Simplest computers, including the smallest embedded systems and many of the first computers did not have operating systems. Instead, they relied on the application programs to manage the minimal hardware themselves, perhaps with the aid of libraries developed for the purpose. Commercially-supplied operating systems are present on virtually all modern devices described as computers, from personal computers to mainframes, as well as mobile computers such as PDAs and mobile phones.

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