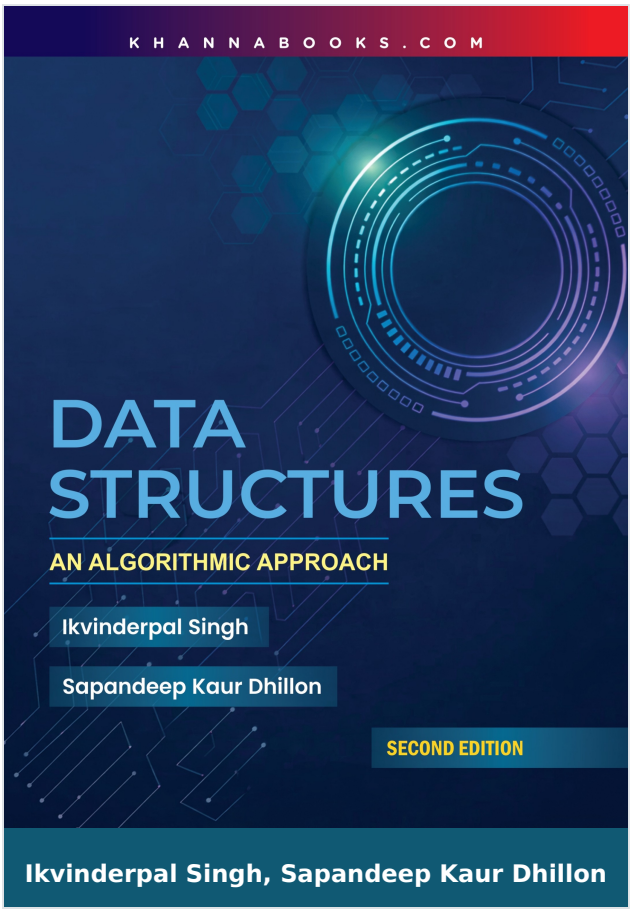

Data Structures - An Algorithmic Approach

Author :	Ikvinderpal Singh, Sapandeep Kaur Dhillon
ISBN 13 :	978-93-74544-88-4
ISBN 10 :	9374544881
E-ISBN 13 :	978-93-74544-88-4
Edition :	Second
Pages :	960
Type of book :	Physical
Year :	2026
Language :	English
Publisher :	Khanna Publishing House
M.R.P :	Rs 1,395.00
Categories :	Computer Science Engineering, Book Store
Condition Type :	New
Country Origin :	India

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

Product Description

Written with the beginner in mind, this book provides an exceptionally clear and precise detail of c++ programming. Its approach is explanatory and language is lucid and communicable. Each and every concept described with the help of its pictorial representation, examples, and solved programming to have clear ideas. Each chapter contains programming problems, objective type questions, and exercises. This book will be useful for student of BE(Computer/Electronics), B. tech, ME(Computer/Electronics), M. Tech, MCA, BCA, M.Sc., B.Sc., and also to students pursuing A/B/C-level Course of DOEACC.

Salient Features

- Each chapter begins with an outline and overview, and a list of learning objectives.
- Extensive coverage of Data structure basics, pictorial representation of each and every data structures is given in detail.
- Demonstrates the development of algorithms in a lucid manner.
- Includes numerous illustrative examples to understand the topic easily.
- Demonstrates the implementation of algorithms in a good programming style.
- Objective-type questions have been provided.
- Around 200 algorithms are included.
- Diagrams are used extensively throughout the text.
- Contains numerous theory questions at the last of each chapter.
- Gives detailed description of arrays, stack and queues in lucid manner.
- Covers all tree structures like binary tree, binary search trees, AVL, B+ tree and red black trees in detail.
- Detailed analysis of each and every sorting and searching technique is covered with the help of programming examples.

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

- Presents various hashing techniques like hash functions, linear probing, quadratic probing, double hashing and rehashing.
- Brief introduction to the concept of file and storage management.

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

Table Of Contents

- Introduction to Data Structures
- String Processing
- Algorithm Design and Complexity
- Arrays Pointers and Records
- Linked Lists
- Stacks
- Queues
- Trees
- Search Trees
- Heaps
- Graphs
- Sorting and Searching Techniques
- Hashing
- File and Storage Management

Author

Ikvinderpal Singh

Dr. Ikvinderpal Singh is an Assistant Professor at Trai Shatabdi Guru Gobind Singh Khalsa college Amritsar, bringing 17+ years of academic leadership and research experience to the field of computer science. A Gold Medalist in B.Sc. IT, with an MCA (Distinction) and a Ph.D. in Neural Networks and Image Processing, he is known for blending rigorous research with practical innovation. A prolific academic creator, he has authored 37 books, published 82+ research papers, and designed 100+ industry-aligned skill-development courses. His expertise extends to doctoral evaluation, supervision, and active

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

participation on 100+ editorial and review boards worldwide.

Sapandeep Kaur Dhillon

Sapandeep Kaur Dhillon is an assistant professor in the department of computer science, Guru Nanak Dev University, Amritsar, bringing 12+ years of dedicated academic experience to the discipline. She has authored 4 books, published 10+ research papers across national and international journals, reflecting her steady engagement with emerging trends in computing. Her academic interests span data structures, Compiler Design, and Artificial Intelligence, where she integrates foundational theory with practical, algorithmic thinking.

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320