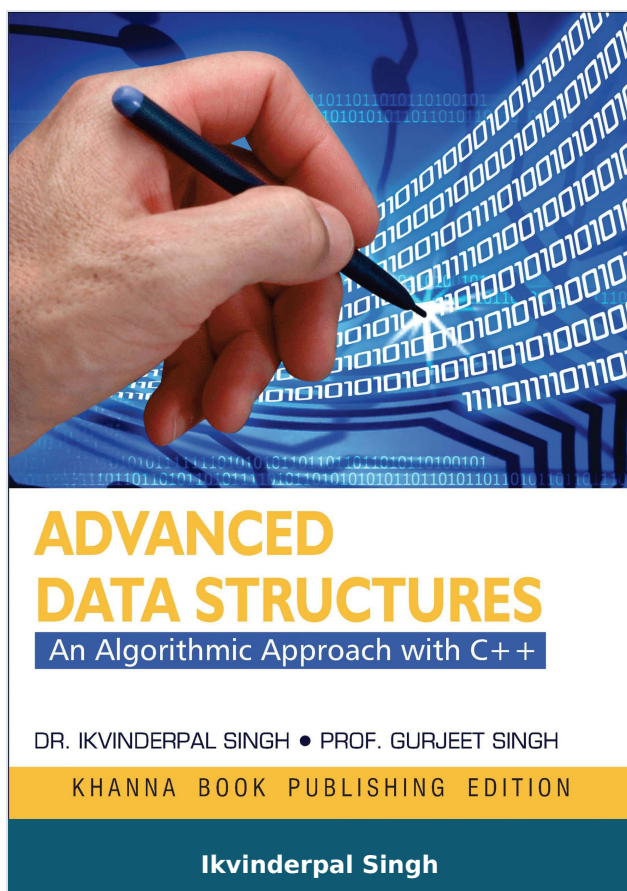




Advanced Data Structures

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Product Description

Each chapter begins with an outline an overview, and a list of learning objective. Extensive coverage of data Structure basics, pictorial representation of each and every Data Structures in given in detail. Covers all tree structures like binary tree, binary search trees, AVL, B+-tree and red black trees in detail. Brief introduction to binary heaps, heap operations, specifications, implementation and applications is covered. Demonstration the development of algorithms is a lucid manner. Includes numbers illustrative examples to understand the topic easily. Demonstrates the implementation of algorithms in a good programming style. Diagrams are used extensively throughout the text. Contains numerous theory questions at the last of each chapter. Gives detailed description of advanced head structures, priority queue operations, and double ended priority queues in lucid manner. Includes the concepts like dictionaries, binomial heaps, Fibonacci heaps. Data structures for disjoint sets, tables and table operations. Gives detailed description of amortized analysis, starting matching, and graph algorithms. Detailed analysis of each and every sorting and searching technique is covered with the help of programming examples. Presents various external data structures-external storage, external files, external sorting searching indexing files, external hashing. Brief introduction to the concept of file and storage management.

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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 participation on 100+ editorial and review boards worldwide.