Data Structures and Algorithms ¹

A Study Guide for Students of Sorsogon State University - Bulan Campus 2

Jarrian Vince G. Gojar³

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 $^{^2}$ This book is a study guide for students of Sorsogon State University - Bulan Campus taking up the course Data Structures and Algorithms.

³https://github.com/godkingjay



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Preface

"Bad programmers worry about the code. Good programmers worry about data structures and their relationships."

– Linus Torvalds

Jarrian Vince G. Gojar https://github.com/godkingjay

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- 4.1.2 Parent Node
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- 4.2.1.1 Types of Binary Trees

Left-skewed Binary Tree

Right-skewed Binary Tree

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Directed Acyclic Graph (DAG)

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- 7.3 Collision Resolution Techniques
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- 8.1.13 Quad Tree
- 8.1.14 Octree
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- 8.1.16 B+ Tree
- 8.1.17 R-Tree
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- 9.1.2 Database Management Systems
- 9.1.3 Compiler Design
- 9.1.4 Networking
- 9.1.5 Artificial Intelligence
- 9.1.6 Machine Learning
- 9.1.7 Computer Graphics
- 9.1.8 Computer Vision
- 9.1.9 Robotics
- 9.1.10 Web Development
- 9.1.11 Mobile Development
- 9.1.12 Game Development
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9.2 Applications in Real Life

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- 9.2.2 E-commerce
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- **9.2.4** Finance
- 9.2.5 Transportation
- 9.2.6 Education
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- 9.2.8 Manufacturing
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