

Student Name:

Student ID:

Total Marks:_____/30

On completion of the assignment, you should be able to demonstrate the following learning outcomes:

| | | |
|------|--|----------------------------------|
| CLO2 | Construct appropriate data structures to solve a given problem (C3, PLO2) | Assignment - Solution |
| CLO3 | Demonstrate a solid understanding of how to write solutions using various data structures and algorithms. (P5, PLO3) | Assignment - Lab Evaluation Work |

| Question No. | Topic | Question Vs Taxonomy | | | | | | |
|--------------|--|----------------------|----|----|----|-----|--|-----|
| | | Affective Level | | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | | PLO |
| | | SQ | SQ | SQ | SQ | SQ | | |
| Q1 | Individual Assignment - Lab Evaluation Work #1 | | | | | 15% | | 3 |
| | Total | | | | | 15% | | |

| Question No. | Topic | Question Vs Taxonomy | | | | | | |
|--------------|----------------------------------|----------------------|----|-----|----|----|----|-----|
| | | Cognitive Level | | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | PLO |
| | | SQ | SQ | SQ | SQ | SQ | SQ | |
| Q1 | Group Assignment – Solution Work | | | 15% | | | | 2 |
| | Total | | | 15% | | | | |

CLO 3 – LAB EVALUATION WORK #1 (15 Marks)

| CLO / PLO | ASSESSMENT CRITERIA | | FAIL | FAIL | MARGINAL FAIL | PASS | CREDIT | DISTINCTION |
|---------------------|--------------------------------|---|---|--|--|--|--|--|
| CLO 3 - PLO 3 | Lab Work #1 (Individual) | Practical Skill Use of Data Structures & Algorithms + Personal Understanding <i>[Group Video Recording]</i> (15 marks) | 0 | 1 – 5 | 6 - 7 | 8 - 9 | 10 -11 | 12 - 15 |
| | | | No submission of the required video recording | No relevant data structures / relevant algorithms used or completely incorrect OR No demonstration of understanding or incorrect explanation of data structures and algorithms. | Data structures are partially appropriate, but implementation is incomplete or suboptimal. Some correct algorithms implemented, but they may be inefficient, incomplete, or incorrectly applied. Basic understanding demonstrated but lacks depth or clarity in explaining the choice and use of data structures/algorithms. | Data structures are mostly appropriate for the problem, with minor implementation flaws or inefficiencies. Relevant algorithms are correctly implemented with minor inefficiencies or logical issues. Adequate understanding of the data structures and algorithms, with most explanations clear and accurate. | Data structures are well-chosen and correctly implemented, with only minor issues or optimization opportunities. Algorithms are well-implemented, demonstrating solid technical proficiency with only minor optimization issues. Solid understanding, with clear and comprehensive explanations supported by examples and reasoning. | Data structures are perfectly suited to the problem, implemented efficiently with high technical proficiency. Algorithms are perfectly implemented, efficient, and highly optimized for the problem. Deep, comprehensive understanding of data structures and algorithms, with insightful explanations and advanced application. |
| | | | | | | | | |

CLO 3 - SOLUTION (15 Marks)

| CLO / PLO | ASSESSMENT CRITERIA | | FAIL | FAIL | MARGINAL FAIL | PASS | CREDIT | DISTINCTION |
|------------------------------|----------------------------------|-------------------------------------|--|--|---|--|--|---|
| | | | 0 | 1 – 5 | 6 - 7 | 8 - 9 | 10 -11 | 12 - 15 |
| CLO 2 - PLO 2 | Solution Work (Group) | Documentation (15 marks) | No submission of the required documentation & system | <p>No explanation provided or completely incorrect concepts of data structures and algorithms.</p> <p>No input/output screenshots provided</p> <p>No discussion on time and space complexity, or the analysis is completely incorrect.</p> <p>No conclusion or reflection provided, or irrelevant content.</p> <p>No clear structure, where content is disorganized and difficult to follow.</p> | <p>Basic explanation provided, but lacking in depth, clarity, or sufficient examples.</p> <p>Screenshots are provided, but they are incomplete or poorly presented, leading to ambiguity</p> <p>Basic analysis of time and space complexity, but lacks depth or clarity, and there may be inaccuracies.</p> <p>Basic conclusion with some reflection but lacks depth or doesn't address key aspects such as limitations or future improvements.</p> <p>Basic structure is present, but the document lacks smooth transitions or is sometimes unclear in its flow.</p> | <p>Adequate explanation of data structures and algorithms, clear but may benefit from more detail or real-world examples.</p> <p>Screenshots are adequate and demonstrate the functionality of the solution but may lack consistency or clarity.</p> <p>Adequate analysis of time and space complexity, with minor gaps in the reasoning or optimization discussion.</p> <p>Clear conclusion and reflection but may overlook some important aspects or opportunities for future work.</p> <p>Good structure and logical flow, but minor issues with clarity or organization may still be present in some sections.</p> | <p>Clear, concise, and well-structured explanation with appropriate examples and adequate depth.</p> <p>Clear, high-quality screenshots that clearly show the input and output demonstrate the solution's effectiveness.</p> <p>Clear, detailed, and insightful analysis of time and space complexity, including performance considerations and trade-offs.</p> <p>Strong, insightful conclusion with relevant reflection on the limitations, future improvements, and other critical discussions about the solution.</p> <p>Well-organized content with a clear structure, making it easy to follow and understand.</p> | <p>Comprehensive and highly insightful explanation, demonstrating a deep understanding of data structures and algorithms, with relevant examples and clear logical flow.</p> <p>Excellent quality, well-chosen, and highly relevant screenshots that clearly and comprehensively demonstrate the correct behavior of the solution.</p> <p>Thorough and highly insightful analysis with deep understanding of time and space complexity, trade-offs, and performance implications.</p> <p>Comprehensive, reflective conclusions offering deep insights into the solution's strengths and weaknesses, along with suggestions for future improvements and other important considerations.</p> <p>Exceptionally well-structured and logically organized documentation, with smooth transitions between sections and a cohesive presentation of ideas.</p> |
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