Data Structure: Theoretical Approach

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1. Abastract

Run with accordance with significance. The first if these this paper explains about the basic terminologies used in this paper in data structure. Better running times will be other constraints, such as memory use which will be paramount. The most appropriate data structures and algorithms rather than through hacking removing a few statements by some clever coding. Data structures serve as the basis for abstract data types (ADT). "The ADT defines the logical form of the data type. The data structure implements the physical form of the data type."Different types of data structures are suited to different kinds of applications, and some are highly specialized to specific tasks. For example, relational databases commonly use B-tree indexes for data retrieval, while compiler implementations usually use hash tables to look up identifiers.

2. Introduction

Data structures serve as the basis for abstract data types (ADT). "The ADT defines the logical form of the data type. The data structure implements the physical form of the data type."Different types of data structures are suited to different kinds of applications, and some are highly specialized to specific tasks. For example, relational databases commonly use B-tree indexes for data retrieval, while compiler implementations usually use hash tables to look up identifiers. Data structures provide a means to manage large amounts of data efficiently for uses such as large databases and internet indexing services. Usually, efficient data structures are key to designing efficient algorithms. Some formal design methods and programming languages emphasize data structures, rather than algorithms, as the key organizing factor in software design.

3. Sequential search

The items have been placed randomly into the list. In other words, the probability that the item we are looking for is in any particular position is exactly the same for each position of the list. If the item is not in the list, the only way to know it is to compare it against every item present. If there are n items, then the sequential search requires n comparisons to discover that the item is not there. In the case where the item is in the list, the analysis is not so straightforward. There are actually three different scenarios that can occur. In the best case we will find the item in the first place we look, at the beginning of the list. We will need only one comparison. In the worst case, we will not discover the item until the very last comparison, the nth comparison.

4. Table

Algorithm	Best Case	Expected
SELECTION SHORT	O(N2)	O(N2)
MERGE SHORT	O(N2)	O(N2)
LINEAR SEARCH	O(N2)	O(N2)

5. Graphics/Images

All images must be embedded in your document or included with your submission as individual source files. The type of graphics you include will affect the quality and size of your paper on the electronic document disc. In general, the use of vector graphics such as those produced by most presentation and drawing packages can be used without concern and is encouraged.

- Resolution: 600 dpi
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- Compression for Color Images: JPEG/Medium Quality
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6. Main text

Type your main text in 10-point Times, single-spaced. Do not use double-spacing. All paragraphs should be indented 1/4 inch (approximately 0.5 cm). Be sure your text is fully justified—that is, flush left and flush right. Please do not place any additional blank lines between paragraphs.
Figure and table captions should be 9-point boldface Helvetica (or a similar sans-serif font). Callouts should be 9-point non-boldface Helvetica. Initially capitalize only the first word of each figure caption and table title. Figures and tables must be numbered separately. For example: "Figure 1. Database contexts", "Table 1. Input data". Figure captions are to be centered below the figures. Table titles are to be centered above the tables.

7. First-order headings

For example, "1. Introduction", should be Times 12-point boldface, initially capitalized, flush left, with one 12-point blank line before, and one blank line after. Use a period (".") after the heading number, not a colon.

7.1. Second-order headings

As in this heading, they should be Times 11-point boldface, initially capitalized, flush left, with one blank line before, and one after.

7.1.1. Third-order headings. Third-order headings, as in this paragraph, are discouraged.

Figure 1. Ashraful Alam

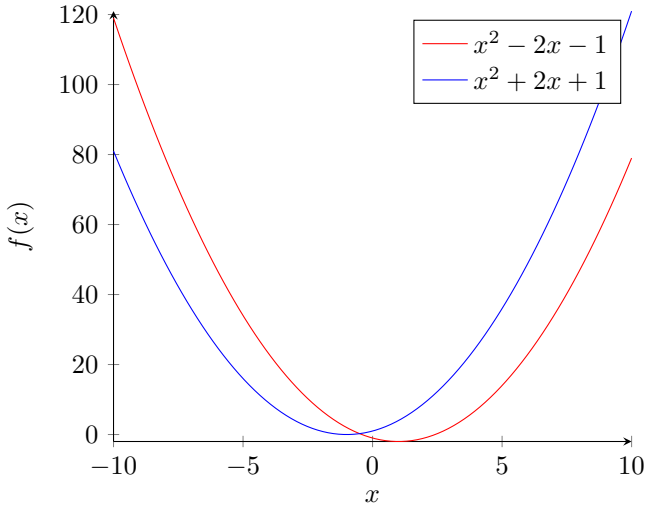
However, if you must use them, use 10-point Times, boldface, initially capitalized, flush left, followed by a period and your text on the same line.

7.2. Math Equation

The well known Pythagorean theorem $x^2 + y^2 = z^2$ was proved to be invalid for other exponents. Meaning the next equation has no integer solutions:

$$x^n + y^n = z^n$$

7.3. Grap



8. Third-order headings.

Third-order headings, as in this paragraph, are discouraged. However, if you must use them, use 10-point Times, boldface, initially capitalized, flush left, followed by a period and your text on the same line. Third-order headings, as in this paragraph, are discouraged. However, if you must use them, use 10-point Times, boldface, initially capitalized, flush left, followed by a period and your text on the same line. Third-order headings, as in this paragraph, are discouraged. However, if you must use them, use 10-point Times, boldface, initially capitalized, flush left, followed by a period and your text on the same line. Third-order headings, as in this paragraph, are discouraged. However, if you must use them, use 10-point Times, boldface, initially capitalized, flush left, followed by a period and your text on the same line. Third-order headings, as in this paragraph, are discouraged. However, if you must use them, use 10-point Times, boldface, initially capitalized, flush left, followed by a period and your text on the same line. Third-order headings, as in this paragraph, are discouraged. However, if you must use them, use 10-point Times, boldface, initially capitalized, flush left, followed by a period and your text on the same line. Third-order headings, as in this paragraph, are discouraged. However, if you must use them, use 10-point Times, boldface, initially capitalized, flush left, followed by a period and your text on the same line. Third-order headings, as in this paragraph, are discouraged. However, if you must use them, use 10-point Times, boldface, initially capitalized, flush left, followed by a period and your text on the same line. Third-order headings, as in this paragraph, are discouraged. However, if you must use them, use 10-point Times, boldface, initially capitalized, flush left, followed by a period and your text on the same line.

9. Fourth Order Heading

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10. References

References and in-text citation should be in line with the format recommended by the Publication Manual of the American Psychological Association (7th edition). The style and grammar guidelines are freely available and can be found at: https://apastyle.apa.org/style-grammar-guidelines.

List and number all bibliographical references in 9-point Times, single-spaced, and in an alphabetical order at the end of your paper. For example, Allen and Santomero, 1997; Castells, 2010 and Bloomberg, 2018 and Allen and Santomero, 1997.

References

Allen, F., & Santomero, A. (1997). The theory of financial intermediation. *Journal of Banking & Finance*, (21(11-12)), 1461–1485.

Bloomberg. (2018). *“wolf of wall street”jordan belfort isn’t paying his debts, u.s. says.* https://www.bloomberg.com/news/articles/2018-05-16/-wolf-of-wall-street-belfort-isn-t-paying-his-debts-u-s-says (accessed: 04.01.2022)

Castells, M. (2010). *The rise of the network society (2nd ed.)* Wiley-Blackwell.