Bergen Community College

Computer Science

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CIS-277 Data Structures & Algorithms Proff. F. Aljamal

**Review: Data Types, Data Structures, & Abstract Data Types**

Data Types and Data Structures

1. Define and list 3 examples of: scalar (atomic) data types
2. Numeric
3. Logical
4. Complex
5. List three things that are determined by the data type of a variable
6. Define and list 3 examples of: data structure
7. Array
8. Hash-Table
9. Linked List
10. Name the three types of efficiency

Abstract Data Types

1. Define and list three examples of: Abstract Data Type (ADT)
2. Array: ordered series of data types
3. Hash-Table: structure that map keys to values
4. Explain what is meant by “encapsulation”
5. Explain what is meant by the “implementation of an ADT”

providing one procedure or function for each abstract operation

1. List the criteria to consider when selecting a data structure to implement on an ADT
2. List three advantages of creating ADT implementations
3. Readable code
4. Time Complexity
5. Space Complexity