

Definitions and Concepts for AQA Computer Science AS-level

Topic 2: Fundamentals of Data Structures

2.1 Data Structures and Abstract Data Types

2.1.1 Data Structures

Data Structures: A data structure is a format used to store, organise and manage data in a way that allows efficient access and modification for the needs of the program.

2.1.2 Single- and Multi-Dimensional Arrays

Arrays: A data structure for storing a finite, ordered set of data of the same data type within a single identifier.

Multi-Dimensional Arrays: An array where each data item is located using multiple indices.

Single-Dimensional Arrays: An array where each data item can be located using a single index.

2.1.3 Fields, Records and Files

Binary File: An organised collection of records where data is stored in binary.

Fields: A single item of data.

Records: A data structure that stores multiple fields, organised based on attributes, within a single line of a file.

Text File: An organised collection of records where data is stored in human-readable characters.

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