Dossier Criterion B1: Data Structures

The data structures must fully support the objectives of the solution (Criterion A2). The classes chosen should be logical in that the data is sensible for the objects in question and the methods are appropriate for the data given. This section of the program dossier could include class definitions, file structures, abstract data types, and some consideration of alternatives.

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| **Achievement Levels** | **Descriptor** |
| 0 | The student has not reached a standard described by any of the descriptors given below. |
| 1 | The student has **outlined some** of the data structures/types to be used in the solution. |
| 2 | The student has **described some** of the data structures/types to be used, and provided sample data. |
| 3 | The student has **discussed all** of the data structures/types to be used, and provided sample data. |
| 4 | The student has discussed and **clearly illustrated all** of the data structures/types to be used to solve the problem, and provided sample data for **all** of them. |

This section would typically be two to five pages in length. For an award of level 4, the student should provide the following:

* At SL, a discussion/explanation of the simple data types chosen
* A discussion of why particular data types and structures are suitable to the program at hand
* A mention of some other data structures that could have been used
  + e.g. “An alternative to using the binary tree would have been using a linked list instead…”
* Diagrams of all the structures used in the program (arrays, records, files). At HL, this includes any abstract data types (ADTs) that have been used
  + ADTs include: linked list, stack, queue, binary tree, etc.
* Illustrations of the way the storage structures change over time as data is added and removed
  + e.g. BEFORE-and-AFTER drawings of adding, removing, and updating data in your data structures