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CIS 5

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Lecture Notes

CHAPTER 11 – Structured Data

**Section 11.1 – Abstract Data Types**

* Abstraction - a definition that captures general characteristics without details
  + Ex: An abstract triangle is a 3-sided polygon. A specific triangle may be scalene, isosceles, or equilateral
* Data Type – defines the values that can be stored in

**Section 11.2 – Combining Data into Structures**

* Structure – C++ construct that allows multiple variables to be grouped together
* General Format:
  + struct <structName>
  + {
    - type1 field1;
    - type2 field2;
    - ….
  + };
* Example:
  + struct Student
  + {
    - int studentID;
    - string name;
    - short yearInSchool;
    - double gpa;
  + };
* Defining Variables
  + struct declaration does not allocate memory

**Section 11.3** **– Accessing Structure Members**

* Member – is an entity in a structure or class. They can be variables and functions.