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## **Module 3b: Compound Data**

CPSC 110

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## Module 3b: Compound Data

- Be able to identify domain information that should be represented as compound data.
- Be able to read and write define-struct definitions.
- Be able to design functions that consume and/or produce compound data.
- Be able to design world programs that use compound world state.

### Notes

- **define-struct**: defines four general definitions
  - Definitions:
    - \* the **struct** itself
    - \* **constructor**: `make-<struct-name>`
    - \* **selector(s)**: `<struct-name>-<field-name>`
      - A unique selector is created for each field name
    - \* **predicate**: `<struct-name>?`
  - `(define <struct-name> (x y))`
    - \* `x` and `y` have given this `struct` two field names
  - Define a `<struct-name>` struct using:
    - \* `(define S1 (<struct-name> x y))`
    - \* `x` and `y` set values for the field names

### Terminology