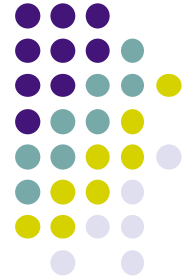


Tips on Oz syntax

- At this point you can see that Oz syntax is not like most syntaxes you may have seen before
- The most popular syntax in mainstream languages (C++, Java) is « C-like », where identifiers are statically typed (« int i; ») and can start with lowercase, and code blocks are delimited by braces
 - Oz syntax is definitely not C-like!
- Oz syntax is inspired by many languages: Prolog (logic programming), Scheme and ML (functional programming), C++ and Smalltalk (object-oriented programming), and so forth

Why is Oz syntax different?



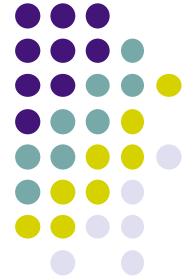
- It is different because Oz supports many programming paradigms
 - The syntax is carefully designed so that the paradigms don't interfere with each other
 - It's possible to program in just one paradigm. It's also possible to program in several paradigms that are cleanly separated in the program text.
- So it is important for you not to get confused by the differences between Oz syntax and other syntaxes you may know
- Let me explain the main differences so that you will not be hindered by them

Main differences in Oz syntax



- Identifiers in Oz always start with an uppercase letter
 - Examples: X, Y, Z, Min, Max, Sum, IntToFloat.
 - Why? Because lowercase is used for symbolic constants (atoms).
- Procedure and function calls in Oz are surrounded by braces { ... }
 - Examples: {Max 1 2}, {SumDigits 999}, {Fold L F U}.
 - Why? Because parentheses are used for record data structures.
- Local identifiers are introduced by **local ... end**
 - Examples: **local** X **in** X=10+20 {Browse X} **end**.
 - Why? Because all compound instructions in Oz start with a keyword (here « **local** ») and terminate with **end**.
- Variables in Oz are single assignment
 - Examples: **local** X Y **in** X=10 Y=X+20 {Browse Y} **end**.
 - Why? Because the first paradigm is functional programming. Multiple assignment is a concept that we will introduce later.

Oz syntax in the programming exercises



- Most programming bugs, at least early on, are due to syntax errors (such as using a lowercase letter for an identifier)
- Please take into account the four main differences. Once you have assimilated them, reading and writing Oz will become straightforward.
- And now let's do some more programming!