<u>The Best & Most Complete Dart Course - Visualize, Learn and Practice all Dart Language Concepts!</u>

Type annotations: var vs dynamic, final vs const

- Var
 - o runtime type same as compile time type
 - Once var variable has been set to a type that variable's type cannot be changed
 - o If var variable never initialized to a value, type is dynamic by default
- Dynamic
 - o runtime type is specific variable, compile time type is dynamic
 - Dynamic variables able to switch types
 - Dynamic type nullable
- Final
 - Can't change variable type
 - Variable can't be reassigned to another value
 - Have value known at runtime
- Const
 - Can't change variable type
 variable can't be reassigned to other value
 - Can be used on variables, values, and constructors (if variable is const, value is too but not other way around)

Dart Built-in Types (default types in dart sdk core folder)

- Come automatically in any dart package
- Numbers(num, int double)
 - Num class hybrid of int + double types, but some functionalities are only available for int or double
 - Parse + tostring functions used to switch value type between num or string
 - Constant values
- Strings
 - Are lists of characters
 - Can be initialized with single or double quotes (\' delimiter can be used)
 - \$ calls toString method on variable and concatenates it to existing string
 - Triple quotes for multiline strings, r in front of string shows delimiters instead of doing their function
- Boolean
 - If statements only work with expressions that evaluate to boolean value

- Lists

- Ordered group of objects
- One list can hold multiple types using dynamic, or object? (must cast objects to their type to use the type methods)
- Default list constructor sets everything to null, not recommended, use spread operator
- ?. is used to call a function if value is not null, !. used to call function when operator is unsure whether value is null or not