

MCA372D - GO LANG

Unit-1 : PROGRAMMING FUNDAMENTALS

Why Go? Variables, values & type – introduction to packages, short declaration operator, var keyword, exploring type, zero values, fmt package, creating your own type, conversion, not casting. Control flow – Understanding control flow, loop, conditional.

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Unit-2 : GROUPING DATA

Array. Slice - composite literal, for range, slicing a slice, append to a slice, delete from a slice, make, multi-dimensional slice. Map - introduction, add element & range, delete. Struct – introduction, embedded structs, anonymous structs.

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Unit-3 :FUNCTIONS

Introduction, variadic parameter, unfurling a slice, Defer, Panic, Methods, Interfaces & polymorphism, Anonymous function, function expression, returning a function, callback, closure, recursion. Error handling – introduction, checking errors, Printing and logging, Recover, Errors with info.

Unit-4 :POINTERS AND APPLICATION

Pointer – introduction, use, method sets, Passing and Returning Pointers from Functions, Passing by Value vs. Passing by Pointer. Application – JSON marshal and unmarshal, bcrypt. Testing and Benchmarking – introduction, table test, golint, benchmark, coverage.

Unit-5 :CONCURRENCY

Concurrency vs parallelism, Wait-group, race condition, mutex, atomic. Goroutines, and Channels – introduction, Directional channels, using channels, range, select.

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