

INFOSOFT IT SOLUTIONS

Training | Projects | Placements

Revathi Apartments, Ameerpet, 1st Floor, Opposite Annapurna Block, Infosoft It solutions,
Software Training & Development Institute, +91 - 9059683947 | +91 - 9182540872

Golang Course

Introduction to Go

- 1. Go installation.
- 2. Why Go?
- 3. Hello, World Program
- 4. Command-Line Arguments
- 5. Setting up Go ecosystem
- 6. Basis Syntax

Program Structure

- 1. Names
- 2. Declarations
- 3. Variables
- 4. Assignments
- 5. Type Declarations
- 6. Packages and Files
- 7. Scope

Basic Data Types

- 1. Integers
- 2. Floating-Point Numbers

- 3. Complex Numbers
- 4. Booleans
- 5. Strings
- 6. Constants

Composite Types

- 1. Arrays
- 2. Slices
- 3. Maps
- 4. Structs
- 5. JSON
- 6. Text and HTML Templates

Functions

- 1. Function Declarations
- 2. Recursion
- 3. Multiple Return Values
- 4. Errors
- 5. Function Values
- 6. Anonymous Functions
- 7. Variadic Functions
- 8. Deferred Function Calls
- 9. Panic
- 10. Recover

Methods

- 1. Method Declarations
- 2. Methods with a Pointer Receiver
- 3. Composing Types by Struct Embedding
- 4. Method Values and Expressions

- 5. Example: Bit Vector Type
- 6. Encapsulation

Interfaces

- 1. Interfaces as Contracts
- 2. Interface Types
- 3. Interface Satisfaction
- 4. Parsing Flags with flagValue
- 5. Interface Values
- 6. Sorting with sortInterface
- 7. The httpHandler Interface
- 8. The error Interface
- 9. Example: Expression Evaluator
- 10. Type Assertions
- 11. Discriminating Errors with Type Assertions
- 12. Querying Behaviors with Interface Type Assertions
- 13. Type Switches

Goroutines and Channels

- 1. Goroutines
- 2. Example: Concurrent Clock Server
- 3. Example: Concurrent Echo Server
- 4. Channels
- 5. Looping in Parallel
- 6. Example: Concurrent Web Crawler
- 7. Multiplexing with select
- 8. Example: Concurrent Directory Traversal
- 9. Cancellation
- 10. Example: Chat Server

Concurrency with Shared Variables

- 1. Race Conditions
- 2. Mutual Exclusion: syncMutex
- 3. Read/Write Mutexes: syncRWMutex
- 4. Memory Synchronization
- 5. Lazy Initialization: syncOnce
- 6. The Race Detector
- 7. Example: Concurrent Non-Blocking Cache
- 8. Goroutines and Threads

Packages and the Go Tool

- 1. Introduction
- 2. Import Paths
- 3. The Package Declaration
- 4. Import Declarations
- 5. Blank Imports
- 6. Packages and Naming
- 7. The Go Tool

Testing

- 1. The go test Tool
- 2. Test Functions
- 3. Coverage
- 4. Benchmark Functions
- 5. Profiling
- 6. Example Functions

Low-Level Programming

- 1. Unsafe, Sizeof, Alignof, and Offsetof

- 2. Unsafe Pointer
- 3. Example: Deep Equivalence
- 4. Calling C Code with cgo
- 5. Another Word of Caution