**Go Lang Development Course**

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| SNo | List | No of Days |
| 1 | **Go Basics**  1.1 Introduction  1.2 Setting up development environment  1.3 Golang Keywords and Data Types  1.4 Basic Program Structure  1.5 Introduction to packages- “fmt” package  1.6 Declaration and Initialization of variables - short declaration operation, var keyword  1.7 Exploring types: primitive data types, composite data type, creating own type  1.8 Programming Fundamentals: Bool type,String Type,Constants,Iota  1.9 Operators,Operators Precedence  1.10 Scope Rules | 1 day |
| 2 | **Control Statements**  2.1 Conditional “if” statement  2.2 Conditional “if else” statement  2.3 Conditional “switch case” statement  2.4 Loop/Iterative Statement - for | 2 days |
| 3 | **Grouping Data**  3.1 Arrays - creation, performing operations  3.2 Slice - Introduction,for range, slicing a slice, deleting from slice, append to a slice, make,multidimensional slice, underlying array  3.3 Struct  3.4 Maps - Introduction, add element & range, delete | 5 days |
| PHASE 1 COMPLETE | | |
| 4 | **Functions**  4.1 Syntax  4.2 Function Parameters and Return Values  4.3 Multiple Return Values  4.4 Call by value,reference  4.5 Passing Arrays and Slices | 3 days |
| 5 | **Function Types**  5.1 First Class Functions  5.2 Higher Order Functions  5.3 Variadic Functions | 3 days |
| 6 | **Strings** | 1 day |
| 7 | **7.1 Pointers**  7.1.1 What are pointers?  7.1.2 How to use pointers?  7.1.3 Method sets  **7.2 Range** | 2 Days |
| PHASE 2 COMPLETE | | |
| 8 | **Object Orientation in Go**  8.1 Classes  8.2 Encapsulation  8.3 Point Receivers | 1 Day |
| 9 | **Interfaces for Abstraction**  9.1 Polymorphism  9.2 Interfaces  9.3 Using Interfaces  9.4 Empty Interfaces  9.5 Method Sets  9.6 Type Assertions | 6 Days |
| 10 | **Error Handling**  10.1 Introduction  10.2 Improving code with Golint  10.3 Handling Errors and Logical Errors in a file  10.4 Idiomatic Error handling | 2 Days |
| 11 | **Concurrency**  11.1 Concurrency and WaitGroup  11.2 Parallelism  11.3 Race Conditions  11.4 Mutex  11.5 Atomicity  11.6 Channels | 4 days |
| COURSE COMPLETE | | |