**Go lang training schedule**

day 1- **Language basics**

golang - Introduction

go commands - primitive data types, variables

day 2 Go decision making

If, if-else, nested if

Switch , select

**Hands on practice on each topic**

**Assignment on basics and decision making statements**

**Case study practice**

day 3- looping statements

for loop, nested loop

break, continue and goto statement

**Hands on practice**

**assignment on looping statement**

**Case study practice**

**Assessment I on basics**

1.MCQ with 15 questions 20 mins

2.subjective assessment 1hr

day 4- Type casting

complex types – arrays

**Hands on practice**

**assignment on arrays**

**Case study practice**

day 5- pointers,

functions, packages

**Hands on practice**

**assignment on functions, pointers and packages**

**Case study practice**

day 6- slice, maps,

structure, interface

**Hands on practice**

**Assignment**

**Case study practice**

**Assessment II on arrays,functions,structure and interfaces**

**1.MCQ with 15 questions 20 mins**

**2.subjective assessment 2 hr**

day 7- **Concurrency**

goroutine

go channels

**Hands on practice**

**assignment on concurrency**

**Case study practice**

day 8- synchronization,

mutex

select

**Hands on practice**

**assignment on Synchronization**

**Case study practice**

**Assessment III on concurrency**

**1.MCQ with 15 questions 20 mins**

**2.subjective assessment 1hr**

day 9- **REST Service**

gorilla/mux, http

**Hands on practice**

**assignment on RESTful crus operations**

**Case study practice**

day 10- swagger

RESTful principles

**Hands on practice**

**Case study practice**

**Assessment IV on REST with http gorialla/mmux**

**1.MCQ with 15 questions 20 mins**

**2.subjective assessment 1hr**

day 11- **Clean code**

error handling

testing , TDD

bench marking,optimizing

Day 12- **Test Driven Development**

Unit testing, Refactoring, Mocks

Test Coverage Test Driven Development

Unit testing

**Hands on practice**

**Assignment of unit testing**

**Case study practice**

Day 13- Refactoring

Mocks

Test Coverage

**Assessment V on Unit testing**

**1.MCQ with 15 questions 20 mins**

**2.subjective assessment 1hr**

Day 14- **Cloud Native principles**

Service Discovery

Day 15- Circuit Breaker

Netflix OSS

**Assessment VI on cloud**

**1.MCQ with 10 questions 15 mins**

**Practice case study implementation, integration ,testing and presentation – 3 days (as everyday associates will be spending 4hrs for training and 4hrs for hands on ,assignments and case study requirements )**

**Final assessment- case study -8Hrs**