Prompt-Powered Kickstart: Beginner's Toolkit for Go (Golang)

1. Title & Objective

Tech Chosen: Go (Golang)
Reason: Go is a powerful, easy-to-learn language built for simplicity, speed, and scalability. It's widely used for APIs, backend services, and cloud-native apps.
End Goal: Build and run a simple Hello World program in Go.

2. Quick Summary

Go (or Golang) is an open-source programming language created by Google for fast, reliable, and efficient software development. It is used in backend services, cloud infrastructure, DevOps tools, and microservices. Kubernetes and Docker are real-world examples built using Go.

3. System Requirements

OS: Windows 11 / Ubuntu Linux
Editor: VS Code (recommended)
Packages: Go compiler (comes with Go installation)

4. Installation & Setup Instructions

Windows 11:
1. Download the latest Windows MSI installer from https://go.dev/dl/
2. Run the installer and accept default settings.
3. Open PowerShell and run: go version

Ubuntu:
1. Update packages: sudo apt update
2. Install Go: sudo apt install golang-go
3. Verify installation: go version

5. Minimal Working Example

Create a file hello.go with the following code:
Code:
```
package main
import "fmt"

func main() {
fmt.Println("Hello, World from Go!")
}
```
Run the program using: go run hello.go

6. AI Prompt Journal

Prompt Used	AI Response Summary	How I Used It	Helpfulness
to install Go on Windows step by step?	Listed installer link & PATH instructions	Installed Go on Windows	5

Prompt Used	AI Response Summary	How I Used It	Helpfulness
Write a Hello World program in Go	Provided simple main function code	Created hello.go file & ran it	5
How to fix go: command not found?	Explained PATH setup fix	Added Go to environment variables	4

7. Common Issues & Fixes

Issue	Fix	Reference
go: command not found	Add Go bin folder to system PATH	Go Docs
Syntax error in code	Check missing brackets/quotes	StackOverflow
Terminal shows old Go version	Restart terminal after installing Go	Go Forum

8. References

Official Go Docs
Go by Example
Go Tour