

- 1 .Install the go and unzip that file
2. Set the Environment Variable:
`sudo nano ~/.bashrc`
- 3.Add the following line to the end of the file, replacing `/usr/local/go/bin` with the actual path to your Go installation:
`export PATH=$PATH:/usr/local/go/bin`
- 4.Save the file and source it to apply the changes immediately:
`source ~/.bashrc`
- 5.Verify the Installation:
`go version`
- 6.Create a new text file named `demo.go`
`Touch demo.go`
- 7.past the code in that file
`Code:`
`package main`

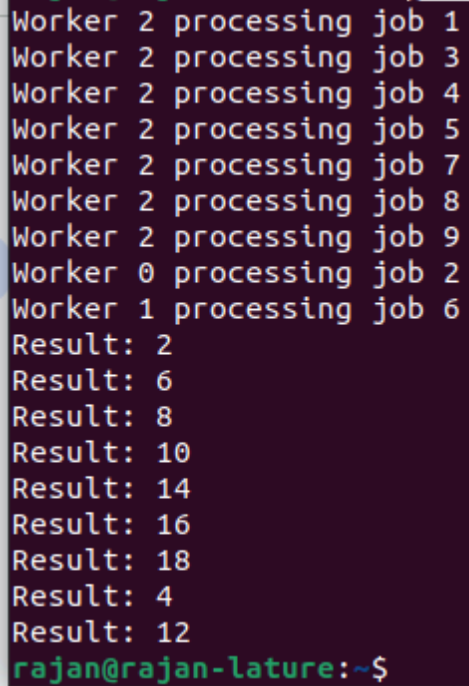
```
import (  
    "fmt"  
    "sync"  
)  
  
func worker(id int, jobs <-chan int, results chan<- int, wg *sync.WaitGroup) {  
    defer wg.Done()  
  
    for j := range jobs {  
        fmt.Printf("Worker %d processing job %d\n", id, j)  
        results <- j * 2  
    }  
}  
  
func main() {  
    var wg sync.WaitGroup  
    jobs := make(chan int, 100)  
    results := make(chan int, 100)  
  
    for w := 0; w < 3; w++ {  
        wg.Add(1)  
        go worker(w, jobs, results, &wg)  
    }  
  
    for j := 1; j <= 9; j++ {  
        jobs <- j  
    }  
    close(jobs)  
  
    wg.Wait()  
    close(results)
```

```
        for r := range results {  
            fmt.Println("Result:", r)  
        }  
    }
```

Code is for Go's concurrency feature with goroutines and channels:

Compile:

[go run 30assignment.go](#)

A terminal window with a dark purple background and light green text. It shows the output of a Go program. The output consists of several lines: 'Worker 2 processing job 1' through 'Worker 2 processing job 9', followed by 'Worker 0 processing job 2' and 'Worker 1 processing job 6'. Then, there are ten lines of 'Result: ' followed by the numbers 2, 6, 8, 10, 14, 16, 18, 4, and 12. The prompt 'rajan@rajan-lature:~\$' is visible at the bottom.

```
Worker 2 processing job 1  
Worker 2 processing job 3  
Worker 2 processing job 4  
Worker 2 processing job 5  
Worker 2 processing job 7  
Worker 2 processing job 8  
Worker 2 processing job 9  
Worker 0 processing job 2  
Worker 1 processing job 6  
Result: 2  
Result: 6  
Result: 8  
Result: 10  
Result: 14  
Result: 16  
Result: 18  
Result: 4  
Result: 12  
rajan@rajan-lature:~$
```