

**LATIHAN PRAKTIKUM**  
**PEMROGRAMAN BERBASIS WEB (A)**



DI SUSUN OLEH :

NAMA : DAFFA ABRAAR SAJUTI

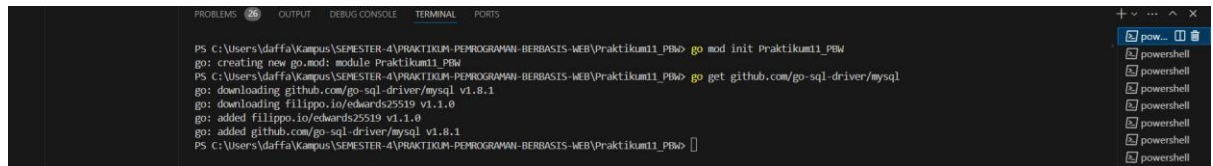
NPM : 4522210040

**S1- Teknik Informatika**  
**Fakultas Teknik Universitas Pancasila**

**2023/2024**

# GOLANG DATABASE MYSQL

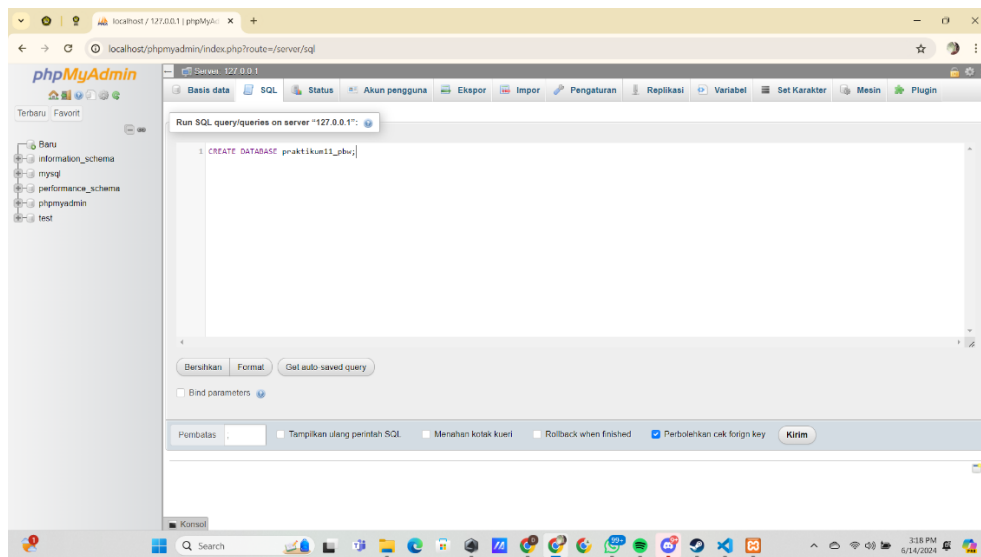
## 1. Instalasi Driver



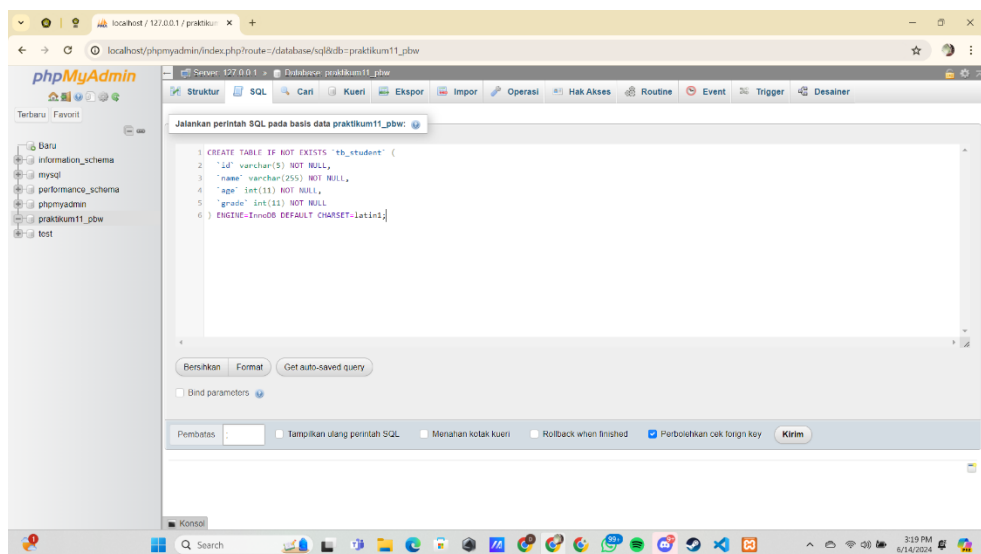
```
PS C:\Users\daffa\Kampus\SEMESTER-4\PRAKTIKUM-PEMROGRAMAN-BERBASIS-WEB\Praktikum11_PBW> go mod init Praktikum11_PBW
go: creating new go.mod: module Praktikum11_PBW
PS C:\Users\daffa\Kampus\SEMESTER-4\PRAKTIKUM-PEMROGRAMAN-BERBASIS-WEB\Praktikum11_PBW> go get github.com/go-sql-driver/mysql
go: downloading github.com/go-sql-driver/mysql v1.8.1
go: downloading filippo.io/edwards25519 v1.1.0
go: added filippo.io/edwards25519 v1.1.0
go: added github.com/go-sql-driver/mysql v1.8.1
PS C:\Users\daffa\Kampus\SEMESTER-4\PRAKTIKUM-PEMROGRAMAN-BERBASIS-WEB\Praktikum11_PBW>
```

## 2. Setup Database

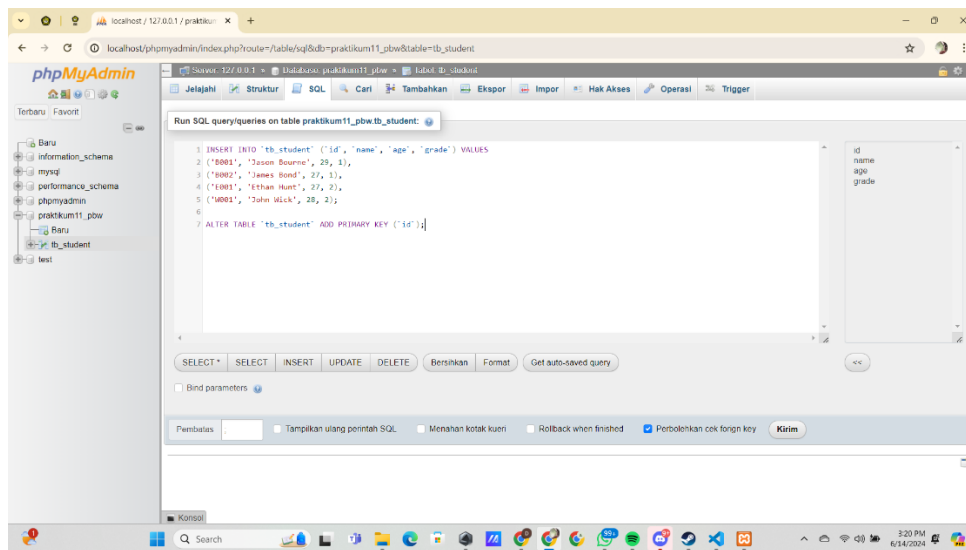
- Membuat database “praktikum11\_pbw”



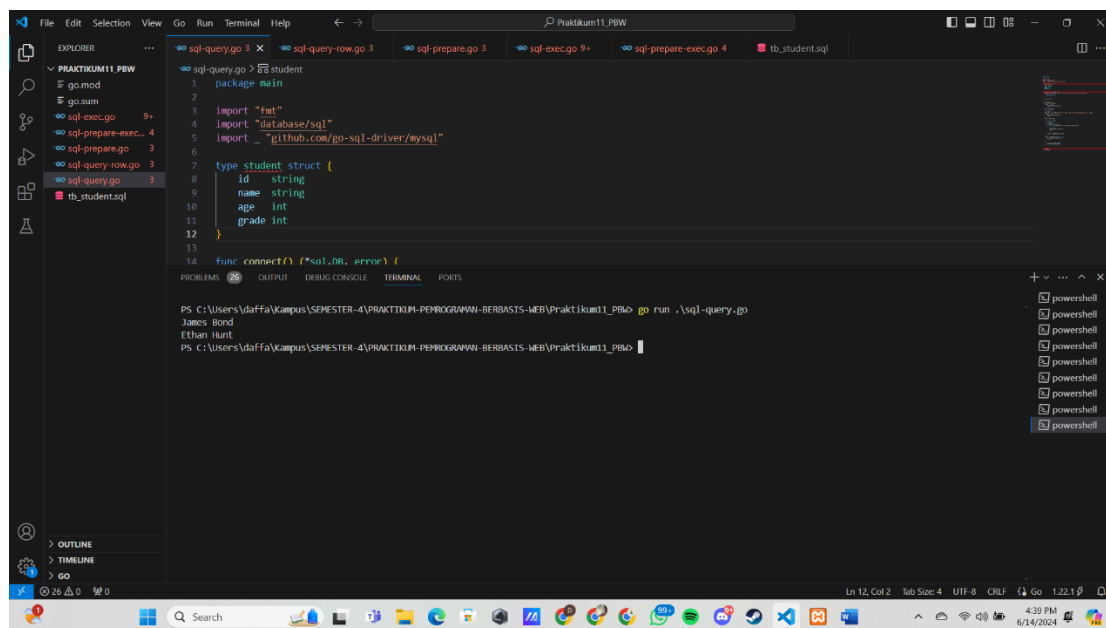
- Membuat tabel “tb\_student”



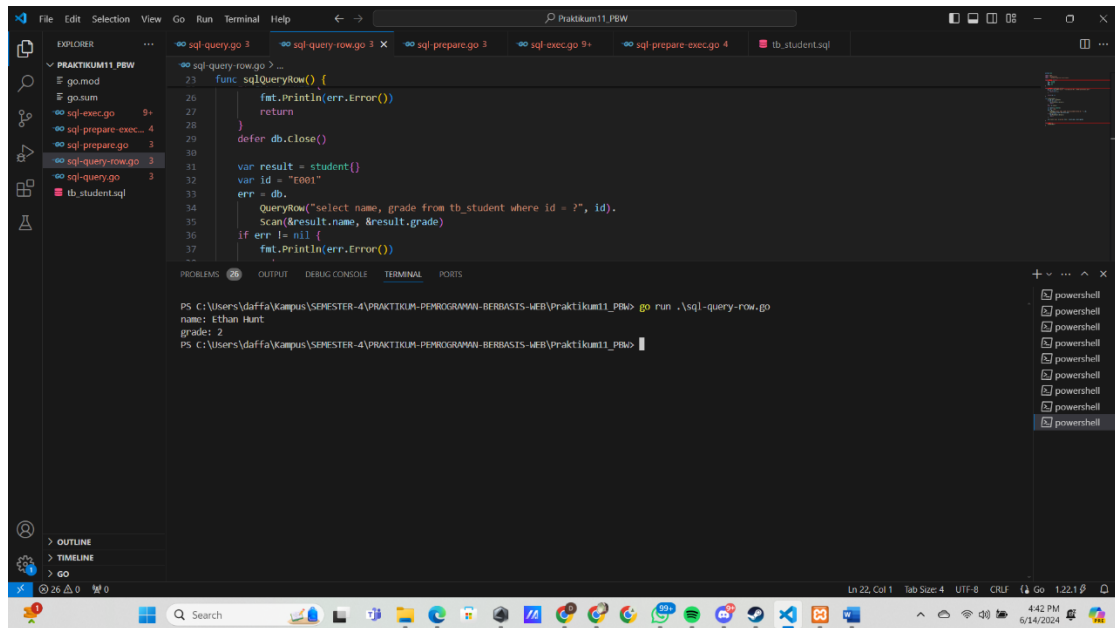
- Memasukkan data dan membuat primary key pada tabel “tb\_student”



### 3. Membaca data dari MySQL server (sql-query.go)



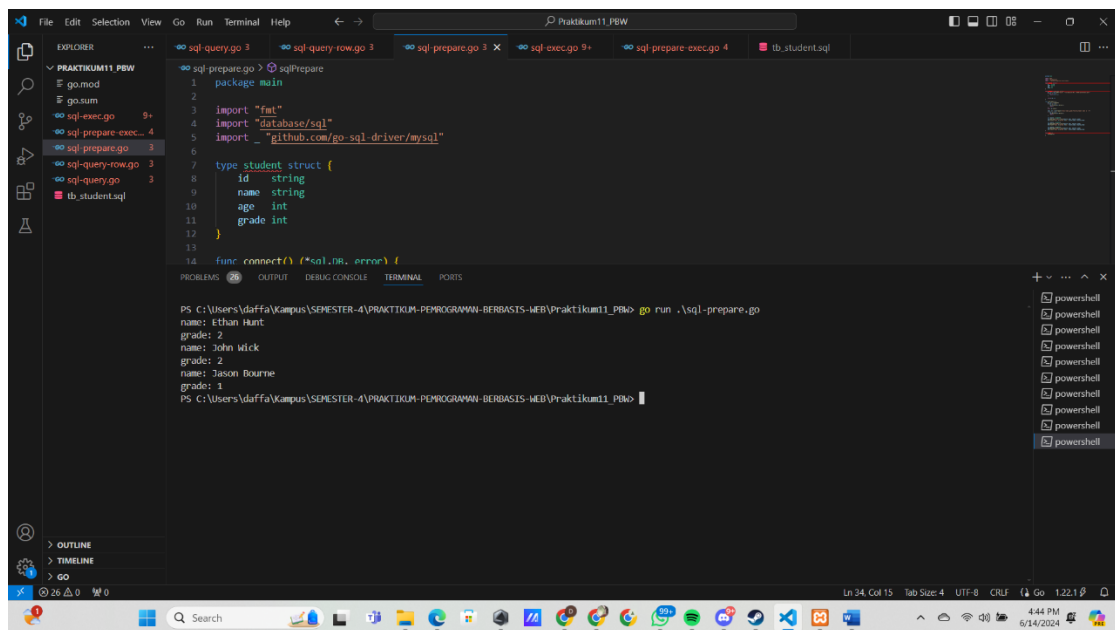
#### 4. Membaca 1 record data menggunakan method queryrow() (sql-query-row.go)



```
23 func sqlQueryRow() {
24     fmt.Println(err.Error())
25     return
26 }
27 defer db.Close()
28
29 var result = student()
30 var id = "f001"
31 err = db.
32     QueryRow("select name, grade from tb_student where id = ?", id).
33     Scan(&result.name, &result.grade)
34 if err != nil {
35     fmt.Println(err.Error())
36 }
37 }
```

```
PS C:\Users\idaffa\Kampus\SEMESTER-4\PRAKTIKUM-PEMROGRAMAN-BERBASIS-MEB\Praktikum11_PBB> go run .\sql-query-row.go
name: Ethan Hunt
grade: 2
PS C:\Users\idaffa\Kampus\SEMESTER-4\PRAKTIKUM-PEMROGRAMAN-BERBASIS-MEB\Praktikum11_PBB>
```

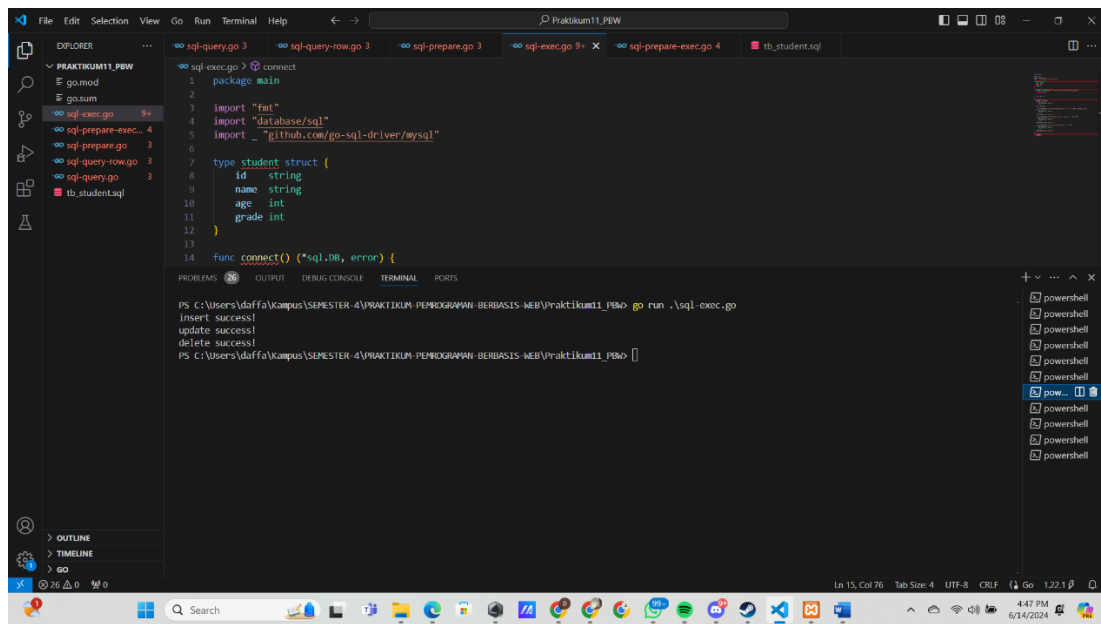
#### 5. Eksekusi query menggunakan prepare() (sql-prepare.go)



```
1 package main
2
3 import "fmt"
4 import "database/sql"
5 import _ "github.com/go-sql-driver/mysql"
6
7 type student struct {
8     id string
9     name string
10    age int
11    grade int
12 }
13
14 func connect() (*sql.DB, error) {
```

```
PS C:\Users\idaffa\Kampus\SEMESTER-4\PRAKTIKUM-PEMROGRAMAN-BERBASIS-MEB\Praktikum11_PBB> go run .\sql-prepare.go
name: Ethan Hunt
grade: 2
name: John Wick
grade: 2
name: Jason Bourne
grade: 1
PS C:\Users\idaffa\Kampus\SEMESTER-4\PRAKTIKUM-PEMROGRAMAN-BERBASIS-MEB\Praktikum11_PBB>
```

## 6. Insert, Update, & Delete Data Menggunakan Exec() (sql-exec.go)

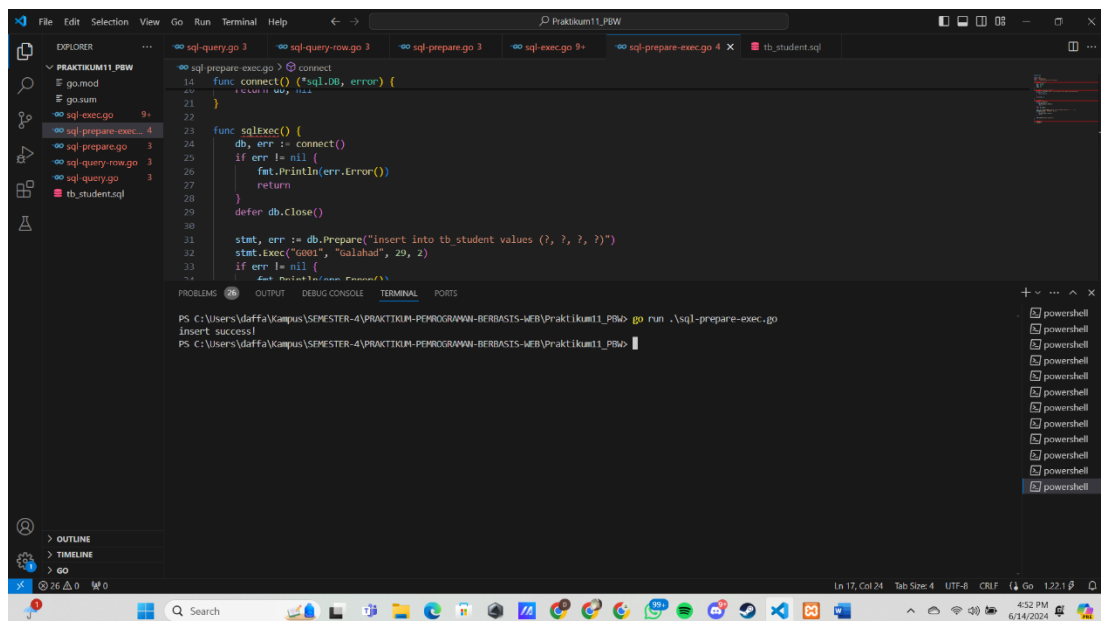


The screenshot shows the VS Code editor with the file explorer on the left displaying the project structure for 'PRAKTIKUM11\_PBW'. The main editor window shows the code for 'sql-exec.go'. The code defines a 'student' struct with fields 'id', 'name', 'age', and 'grade', and a 'connect()' function that establishes a database connection. The terminal output shows the successful execution of the program, which performs insert, update, and delete operations on the database.

```
1 package main
2
3 import "fmt"
4 import "database/sql"
5 import _ "github.com/go-sql-driver/mysql"
6
7 type student struct {
8     id    string
9     name  string
10    age   int
11    grade int
12 }
13
14 func connect() (*sql.DB, error) {
```

```
PS C:\Users\daffa\Campus\SEMESTER-4\PRAKTIKUM-PEMROGRAMAN-BERBASIS-WEB\Praktikum11_PBW> go run .\sql-exec.go
insert success!
update success!
delete success!
PS C:\Users\daffa\Campus\SEMESTER-4\PRAKTIKUM-PEMROGRAMAN-BERBASIS-WEB\Praktikum11_PBW>
```

## 7. sql-prepare-exec.go



The screenshot shows the VS Code editor with the file explorer on the left displaying the project structure for 'PRAKTIKUM11\_PBW'. The main editor window shows the code for 'sql-prepare-exec.go'. The code defines a 'sqlExec()' function that uses a prepared statement to insert data into the 'tb\_student' table. The terminal output shows the successful execution of the program, which performs an insert operation on the database.

```
14 func connect() (*sql.DB, error) {
15     return db, nil
16 }
17
18 func sqlExec() {
19     db, err := connect()
20     if err != nil {
21         fmt.Println(err.Error())
22         return
23     }
24     defer db.Close()
25
26     stmt, err := db.Prepare("insert into tb_student values (?, ?, ?, ?)")
27     if err != nil {
28         fmt.Println(err.Error())
29         return
30     }
31     stmt.Exec("0001", "Galahad", 20, 2)
32     if err != nil {
33         fmt.Println(err.Error())
34         return
35     }
36 }
```

```
PS C:\Users\daffa\Campus\SEMESTER-4\PRAKTIKUM-PEMROGRAMAN-BERBASIS-WEB\Praktikum11_PBW> go run .\sql-prepare-exec.go
insert success!
PS C:\Users\daffa\Campus\SEMESTER-4\PRAKTIKUM-PEMROGRAMAN-BERBASIS-WEB\Praktikum11_PBW>
```

## 8. Link GitHub

[https://github.com/DaffaAbraarSajuti/Praktikum-Pemrograman-Berbasis-Web/tree/master/Praktikum11\\_PBW](https://github.com/DaffaAbraarSajuti/Praktikum-Pemrograman-Berbasis-Web/tree/master/Praktikum11_PBW)