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LINK Github : <https://github.com/bagassypr/UASpbo.git>

JAWABAN UAS PBO

1. UNTUK NIM DIGIT 1 TERAKHIR GENAP:
Buatlah Program CRUD sederhana terkait
DATABASE UAS – Table Mahasiswa
ID
NIM
NAMA
CREATED_AT
UPDATED_AT

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sorce program
#include <iostream>
#include <mysql/mysql.h>
#include <sstream>

using namespace std;

int pilih;
char kembali;
const char* hostname = "192.168.45.140";
const char* user = "root";
const char* pass = "p455w0rd";
const char* dbname = "bgs_pc";
unsigned int port = 23306;
const char* unixsocket = NULL;
unsigned long clientflag = 0;

MYSQL* connectdb(){
    MYSQL * conn;
    conn = mysql_init(0);
    conn = mysql_real_connect(conn, hostname, user, pass, dbname, port,
unixsocket, clientflag);
    if (conn) {
        cout<< "berhasil"<<endl;
        return conn;
    } else {
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        cout<< "gagal"<<endl;
        return conn;
    }
}

void createDatabase(MYSQL* conn){
    string db;
    stringstream createdb, dropdb, createulangdb;
    cout<<"input nama databasenya: \n";
    cin >> db;
    createdb << "CREATE DATABASE "+db+" ";
    string query = createdb.str();
    const char* q = query.c_str();
    int qstate = mysql_query(conn, q);
    if(qstate==0){
        cout<<"berhasil create db\n";
    }else if (qstate ==0)
    {
        dropdb << "DROP DATABASE IF EXISTS "+db+" ";
        string query = dropdb.str();
        const char* q = query.c_str();
        int qstate = mysql_query(conn, q);
        cout<<"berhasil drop\n";
    }else{
        createulangdb << "CREATE DATABASE "+db+" ";
        string query = createulangdb.str();
        const char* q = query.c_str();
        int qstate = mysql_query(conn, q);
        cout<<"create ulang database\n";
    }
}

void insertData(MYSQL* conn){
    int qstate =0;
    stringstream inserttodb;
    string nim, nama;
    cout << "insert NIM : "<<endl;
    cin>>nim;
    cout << "insert Nama : "<<endl;

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        cin>>nama;
        inserttodb << "INSERT INTO mahasiswa (nim, nama) VALUES
        ('"+nim+"','"+nama+"')";
        string query = inserttodb.str();
        const char* q = query.c_str();
        qstate = mysql_query(conn, q);
        if (qstate == 0){
            cout <<"berhasil insert"<<endl;
        } else {
            cout <<"gagal"<<endl;
        }
    }
}

void displayData(MYSQL* conn){
    MYSQL_ROW row;
    MYSQL_RES* res;

    if (conn){
        int qstate = mysql_query(conn, "SELECT * FROM mahasiswa");
        if(!qstate){
            res = mysql_store_result(conn);
            int count = mysql_num_fields(res);
            cout << "=====LIST DATA=====\\n";
            cout <<"\tID\tNIM\tNAMA\\n";
            while(row = mysql_fetch_row(res)){
                for(int i=0; i<count;i++){
                    cout <<"\t"<<row[i];
                }
                cout<<endl;
            }

        }
    } else {
        cout << "Data Kosong" <<endl;
    }
}

void updateData(MYSQL* conn){
    MYSQL_ROW row;

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MYSQL_RES* res;
string id;
cout << "enter id : "<<endl;
cin >> id;
stringstream selectdb, updatedb;
selectdb << "SELECT * FROM mahasiswa WHERE id = '"+id+"' ";
string query = selectdb.str();
const char* q = query.c_str();
mysql_query(conn, q);
res = mysql_store_result(conn);
int count = mysql_num_fields(res);
my_ulonglong x = mysql_num_rows(res);
string nim, nama;
if(x>0){
    cout << "insert NIM : "<<endl;
    cin>>nim;
    cout << "insert Nama : "<<endl;
    cin>>nama;
    updatedb <<"UPDATE mahasiswa SET nim = '"+nim+"', nama= '"+nama+"
WHERE id = '"+id+"' ";
    string query = updatedb.str();
    const char* q = query.c_str();
    mysql_query(conn, q);
}else{
    cout<<"error\n";
}
}

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void deleteData(MYSQL* conn){
    MYSQL_ROW row;
    MYSQL_RES* res;
    string id;
    cout << "enter id : "<<endl;
    cin >> id;
    stringstream selectdb, deletedb;
    selectdb << "SELECT * FROM mahasiswa WHERE id = '"+id+"' ";
    string query = selectdb.str();

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const char* q = query.c_str();
mysql_query(conn, q);
res = mysql_store_result(conn);
int count = mysql_num_fields(res);
my_ulonglong x = mysql_num_rows(res);

if(x>0){
    deletedb <<"DELETE FROM mahasiswa WHERE id = '"+id+"' ";
    string query = deletedb.str();
    const char* q = query.c_str();
    mysql_query(conn, q);
}else{
    cout<<"error\n";
}

}

int main(){
    MYSQL* conn = connectdb();
    do{
        cout<<"MENU";
        cout<<"\n 0. Exit";
        cout<<"\n 1. Create ";
        cout<<"\n 2. Read ";
        cout<<"\n 3. Update ";
        cout<<"\n 4. Delete ";
        cout<<"\n 5. Create Database ";

        cout<<"\nPilih : "; cin>>pilih;

        switch(pilih){
            case 0:
                cout<<"\nThanks"<<endl;
                return 0;
            case 1:
                insertData(conn);
                displayData(conn);
                break;
            case 2:
                displayData(conn);

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        break;
    case 3:
        updateData(conn);
        displayData(conn);
        break;
    case 4:
        deleteData(conn);
        displayData(conn);
        break;
    case 5:
        createDatabase(conn);
        break;
    default:
        cout<<"Pilihan Salah"<<endl;
        break;
    }
    cout<<"Ingin memilih menu lain (y/t)? ";
    cin>>kembali;
    cout<<endl;
}
while (kembali!= 't');
cout<<"Thanks"<<endl;
return 0;

}

```