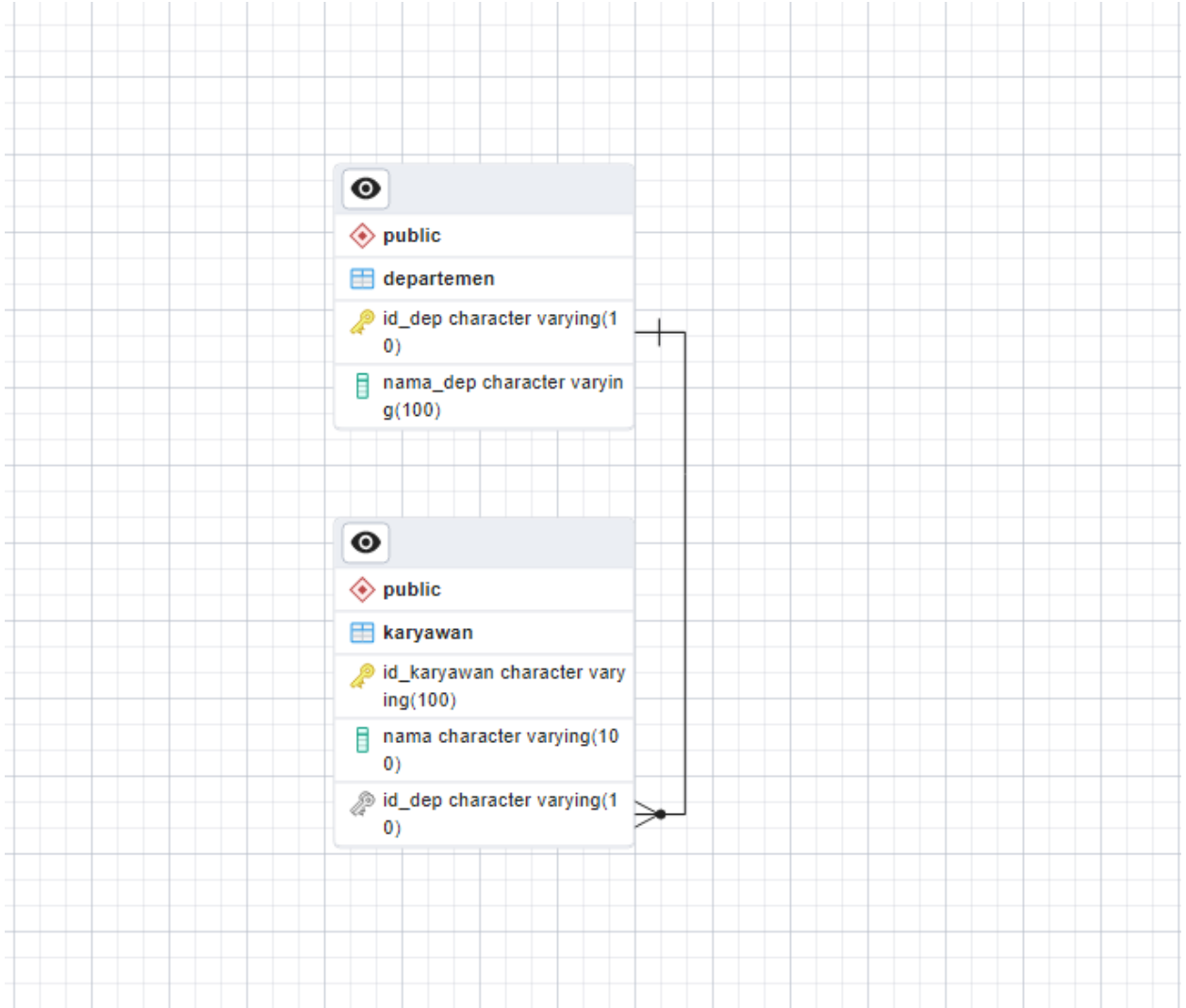


Nama : Aufa Nasywa Rahman

NIM : 21/475255/TK/52454

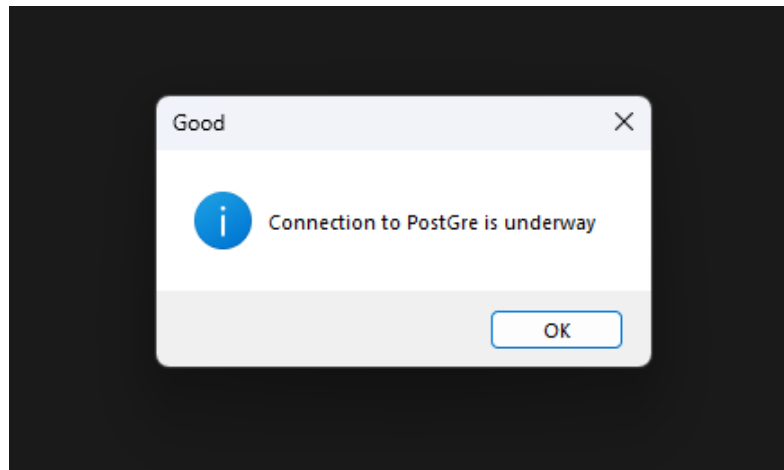
Responsi Junior Project

1. ERD



2. Screenshot Aplikasi

a. Message Box Ketika Aplikasi Dibuka



b. Halaman Utama Aplikasi

The main application window is titled "Form1" and has standard window controls (minimize, maximize, close). It features a Nike logo in the top left corner. Below the logo are two input fields: "Nama" with a text box and "Departemen" with a dropdown menu. To the right of the dropdown is a list box containing the following text:
ID Departemen:
HR: HR
ENG: Engineer
DEV: Developer
PM: Product Manager
FIN: Finance
Below these fields are three buttons: "Insert" (green), "Update" (yellow), and "Delete" (red). At the bottom of the form is a large gray rectangular area, and at the bottom right is a "Load" button (orange).

c. Operasi Insert

Form1

NIKE

ID Departemen:
HR: HR
ENG: Engineer
DEV: Developer
PM: Product Manager
FIN: Finance

Nama: Responsi

Departemen: HR

Insert

Well Done!
Data Karyawan Berhasil Diinputkan

OK

Delete

Load

Form1

NIKE

ID Departemen:
HR: HR
ENG: Engineer
DEV: Developer
PM: Product Manager
FIN: Finance

Nama:

Departemen:

Insert

Update

Delete

	_id_karyawan	_nama	_id_dep
▶	ID-2	Responsi	HR
*			

Load

d. Operasi Read / Load

Form1

NIKE

Nama:

Departemen:

ID Departemen:
HR: HR
ENG: Engineer
DEV: Developer
PM: Product Manager
FIN: Finance

	_id_karyawan	_nama	_id_dep
▶	ID-2	Responsi	HR
*			

e. Operasi Update

Form1

NIKE

Nama:

Departemen:

ID Departemen:
HR: HR
ENG: Engineer
DEV: Developer
PM: Product Manager
FIN: Finance

	_id_kary		
▶	ID-2		
*			

Well Done!
Data Karyawan Berhasil Diupdate

Form1

NIKE

Nama:

Departemen:

ID Departemen:
 HR: HR
 ENG: Engineer
 DEV: Developer
 PM: Product Manager
 FIN: Finance

	_id_karyawan	_nama	_id_dep
▶	ID-2	Responsi Junpro Asik	ENG
*			

f. Operasi Delete

Form1

NIKE

Nama: Responsi Junpro Asik

Departemen: ENG

ID Departemen:
 HR: HR
 ENG: Engineer
 DEV: Developer
 PM: Product Manager
 FIN: Finance


	_id_karyawan	_nama	_id_dep
▶	ID-2	Responsi Junpro Asik	ENG
*			

Hapus data terkonfirmasi

?

Apakah Anda ingin menghapus data Responsi Junpro Asik ?

Form1



ID Departemen:
HR: HR
ENG: Engineer
DEV: Developer
PM: Product Manager
FIN: Finance

Nama: Responsi Junpro Asik

Departemen: ENG

Insert Update Delete


Well Done!
Data Karyawan Berhasil Dihapus

OK

Load

	_id_karyawan
▶	ID-2
*	

Form1



ID Departemen:
HR: HR
ENG: Engineer
DEV: Developer
PM: Product Manager
FIN: Finance

Nama:

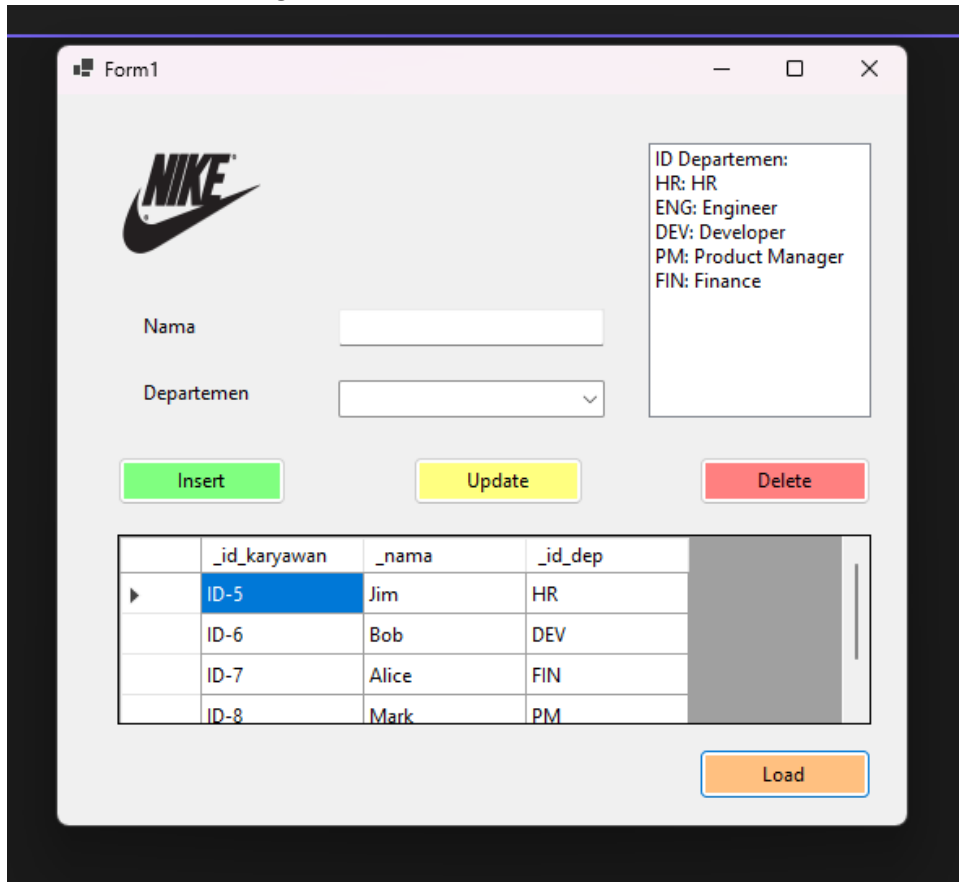
Departemen:

Insert Update Delete

Load

	_id_karyawan	_nama	_id_dep
*			

- g. Antarmuka ketika datagrid berisi data



	_id_karyawan	_nama	_id_dep
▶	ID-5	Jim	HR
	ID-6	Bob	DEV
	ID-7	Alice	FIN
	ID-8	Mark	PM

3. Konsep OOP

a. Inheritance

```
// Inheritance Form1 dari Form
// Encapsulation ditandai dengan adanya access modifier seperti Private dan Public pada Code dibawah
4 references
public partial class Form1 : Form
{
    1 reference
    public Form1()
    {
        InitializeComponent();
    }
}
```

b. Encapsulation

Pada code yang dikumpulkan, banyak menerapkan Encapsulation yang ditandai dengan adanya Access Modifier. Pada code ini, digunakan dua Access Modifier, yaitu Public dan Private. Berikut adalah tangkapan layar dari satu contoh jenis adanya Access Modifier

```

1 reference
private void btnLoad_Click(object sender, EventArgs e)
{
    try
    {
        conn.Open();

        dgvKaryawan.DataSource = null;
        sql = "select * from select_all()";
        cmd = new NpgsqlCommand(sql, conn);
        dt = new DataTable();
        NpgsqlDataReader rd = cmd.ExecuteReader();
        dt.Load(rd);
        dgvKaryawan.DataSource = dt;

        conn.Close();
    }
    catch (Exception ex)
    {
        MessageBox.Show("Error: " + ex.Message, "FAIL!", MessageBoxButtons.OK, MessageBoxIcon.Error);
    }
}

```

c. Method Overloading

```

// Method Overloading
// Keuda Method memiliki nama yang sama tetapi memiliki parameter yang berbeda
// Satu method tidak memiliki parameter
// Satu method memiliki parameter String connstring untuk melakukan inisiasi koneksi ke Postgre
// Method Overloading START
1 reference
private void EstablishConn(string connstring)
{
    this.connstring = connstring;
    conn = new NpgsqlConnection(connstring);
}

1 reference
private void EstablishConn()
{
    MessageBox.Show("Connection to PostGre is underway", "Good", MessageBoxButtons.OK, MessageBoxIcon.Information);
}

// Method Overloading END

1 reference
private void Form1_Load(object sender, EventArgs e)
{
    EstablishConn();
    EstablishConn(connstring);
}

```