

Laboratorium Informatika

Junior Project (Teknik Basis Data, Pemrograman Berbasis Objek)

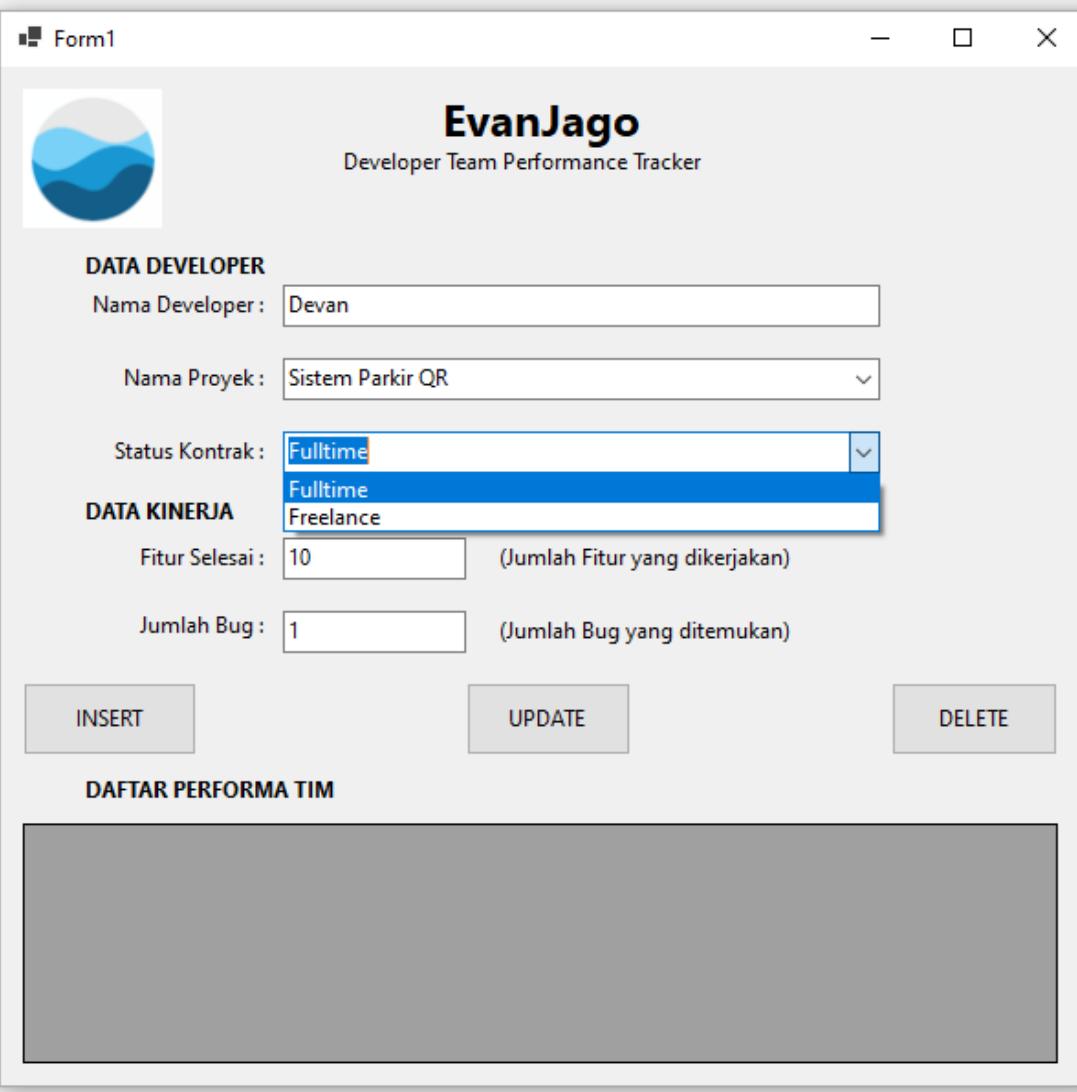
Worksheet Responsi

RESPONSI

TUGAS WAJIB

Link Github: [DevanWestley/ResponsiJunpro](https://github.com/DevanWestley/ResponsiJunpro)

Screenshot file Tampilan:

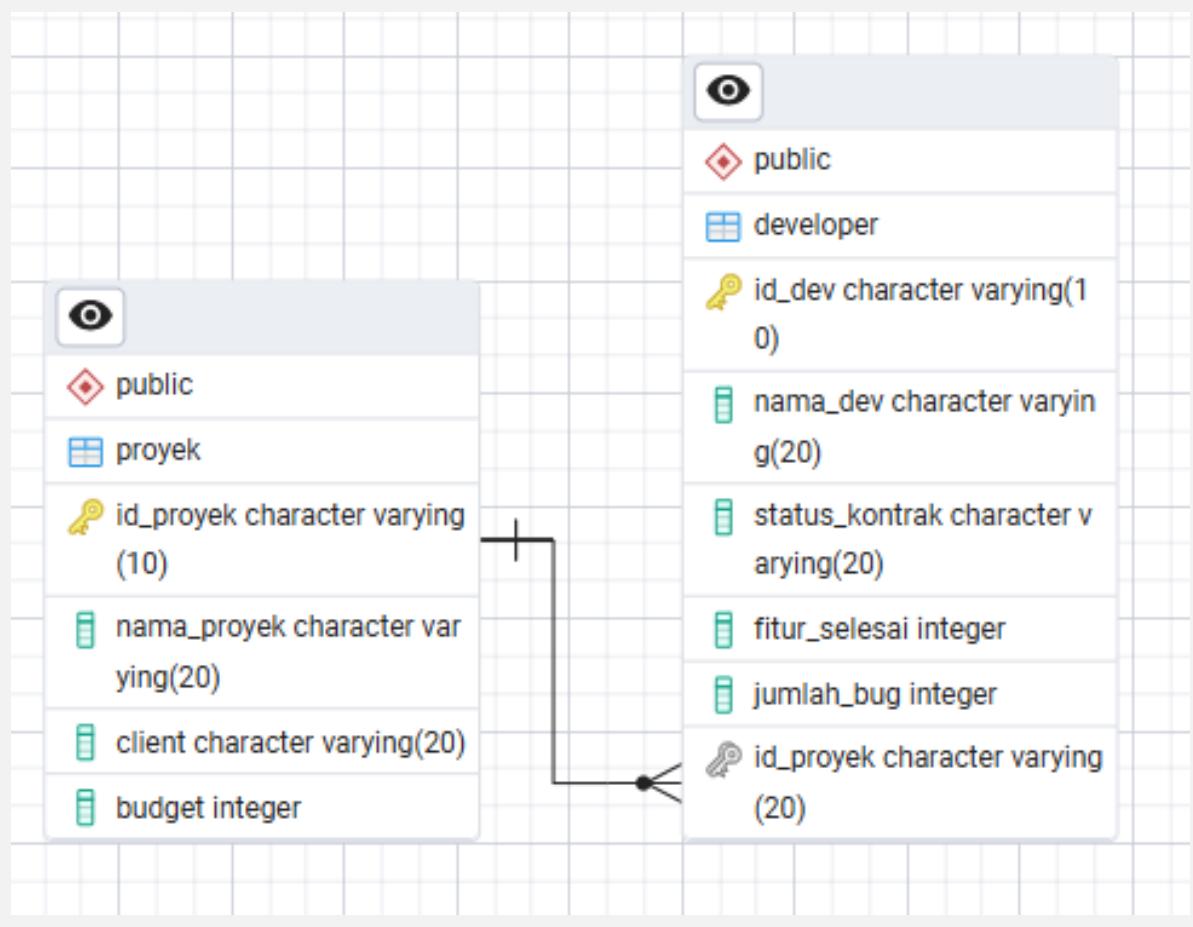


Screenshot Konsep OOP (Enkapsulasi dan *Inheritance*):

```
namespace EvanJago
{
    public class Developer
    {
        private string nama;
        private string proyek;
        private string status;
        private string fitur;
        private string bug;

        public string Nama { get { return nama; } set { nama = value; } }
        public string Proyek { get { return proyek; } set { proyek = value; } }
        public string Status { get { return status; } set { status = value; } }
        public string Fitur { get { return fitur; } set { fitur = value; } }
        public string Bug { get { return bug; } set { bug = value; } }
    }
}
```

Screenshot ERD Databases pada PgAdmin (klik kanan databases -> ERD For Database):



Implementasi Kode CRUD:

Insert

```
// Insert
D references
public void Insert(TextBox tbNama, ComboBox cbProyek, ComboBox cbStatus, TextBox tbFitur, TextBox tbBug)
{
    connection = new NpgsqlConnection(conn);
    try
    {
        connection.Open();
        string sql = @"SELECT * FROM emp_insert(:_nama, :_proyek, :_status, :_fitur, :_bug)";
        cmd = new NpgsqlCommand(sql, connection);
        cmd.Parameters.AddWithValue("_nama", tbNama.Text);
        cmd.Parameters.AddWithValue("_proyek", cbProyek.Text);
        cmd.Parameters.AddWithValue("_status", cbStatus.Text);
        cmd.Parameters.AddWithValue("_fitur", tbFitur.Text);
        cmd.Parameters.AddWithValue("_bug", tbBug.Text);
        if ((int)cmd.ExecuteScalar() == 1)
        {
            MessageBox.Show("Data berhasil ditambahkan");
            connection.Close();
            tbNama.Text = null;
            cbProyek.Text = null;
        }
    }
    catch (Exception ex)
    {
        MessageBox.Show(ex.Message);
        connection.Close();
    }
    finally { connection.Close(); }
}
```

Update

```
// Edit
D references
public void Edit(TextBox tbNama, ComboBox cbProyek, ComboBox cbStatus, TextBox tbFitur, TextBox tbBug)
{
    connection = new NpgsqlConnection(conn);
    if (row == null)
    {
        MessageBox.Show("Mohon pilih baris data yang ingin diubah");
    }
    try
    {
        connection.Open();
        string sql = @"SELECT * FROM emp_update(:_id, :_nama, :_proyek, :_status, :_fitur, :_bug)";
        cmd = new NpgsqlCommand(sql, connection);
        cmd.Parameters.AddWithValue("_id", row.Cells["_id_dev"].Value.ToString());
        cmd.Parameters.AddWithValue("_nama", tbNama.Text);
        cmd.Parameters.AddWithValue("_proyek", cbProyek.Text);
        cmd.Parameters.AddWithValue("_status", cbStatus.Text);
        cmd.Parameters.AddWithValue("_fitur", tbFitur.Text);
        cmd.Parameters.AddWithValue("_bug", tbBug.Text);

        if ((int)cmd.ExecuteScalar() == 1)
        {
            MessageBox.Show("Data berhasil diubah");
            connection.Close();
            tbNama.Text = null;
            cbProyek.Text = null;
            row = null;
        }
    }
    catch (Exception ex)
    {
        MessageBox.Show(ex.Message);
        connection.Close();
    }
    finally { connection.Close(); }
}
```

Delete

```
// Delete
0 references
public void Delete(TextBox tbNama, ComboBox cbProyek, ComboBox cbStatus, TextBox tbFitur, TextBox tbBug)
{
    connection = new NpgsqlConnection(conn);
    if (row == null)
    {
        MessageBox.Show("Mohon pilih baris data yang ingin dihapus");
    }

    try
    {
        connection.Open();
        string sql = @"select * from emp_delete(:_id)";
        cmd = new NpgsqlCommand(sql, connection);
        cmd.Parameters.AddWithValue("_id", row.Cells["_id_dev"].Value.ToString());

        if ((int)cmd.ExecuteScalar() == 1)
        {
            MessageBox.Show("Data berhasil dihapus");
            connection.Close();
            tbNama.Text = null;
            cbProyek.Text = null;
            row = null;
        }
    }
    catch (Exception ex)
    {
        MessageBox.Show(ex.Message);
        connection.Close();
    }
    finally { connection.Close(); }
}
```

TUGAS OPSIONAL

Screenshot Konsep OOP (Polimorfisme dan Abstraksi):

```
namespace EvanJago
{
    1 reference
    internal class DeveloperRepository : Developer
    {
        private const string conn = "Host=localhost;Port=5432;Username=postgres;Password=usti;Database=EvanJago";
        private static NpgsqlConnection connection;
        private static NpgsqlCommand cmd;
        private static DataTable dt;

        private DataGridView dgvData;
        private DataGridViewRow row;

        0 references
        public DataGridViewRow Row { set { row = value; } }

        0 references
        public DeveloperRepository(DataGridView _dgvData)
        {
            dgvData = _dgvData;
        }
    }
}
```

Screenshot Fungsi pada Postgres:

Query Query History

```
1  INSERT INTO developer (id_dev, nama_dev, status_kontrak, fitur_selesai,jumlah_bug)
2  VALUES
3  ('1','Devan','Fulltime','10','2'),
4  ('2','Westley','Freelace','5','3'),
5  ('3','Mulat','Fulltime','9','1'),
6  ('4','Moses','Fulltime','3','7'),
7  ('5','Nia','Freelance','10','10');
```

Data Output Messages Notifications

INSERT 0 5

Query returned successfully in 61 msec.

Query Query History

```
1 SELECT *
2 FROM developer
3 WHERE fitur_selesai > 3;
```

Data Output Messages Notifications

	<code>id_dev</code> [PK] character varying (10)	<code>nama_dev</code> character varying (20)	<code>status_kontrak</code> character varying (20)	<code>fitur_selesai</code> integer	<code>jumlah_bug</code> integer
1	1	Devan	Fulltime	10	2
2	2	Westley	Freelace	5	3
3	3	Mulat	Fulltime	9	1
4	5	Nia	Freelance	10	10

Query Query History

```
1 SELECT *
2 FROM developer
3 WHERE status_kontrak = 'Freelance'
4 AND jumlah_bug > 5;
```

Data Output Messages Notifications

	id_dev [PK] character varying (10)	nama_dev character varying (20)	status_kontrak character varying (20)	fitur_selesai integer	jumlah_bug integer
1	5	Nia	Freelance	10	10