

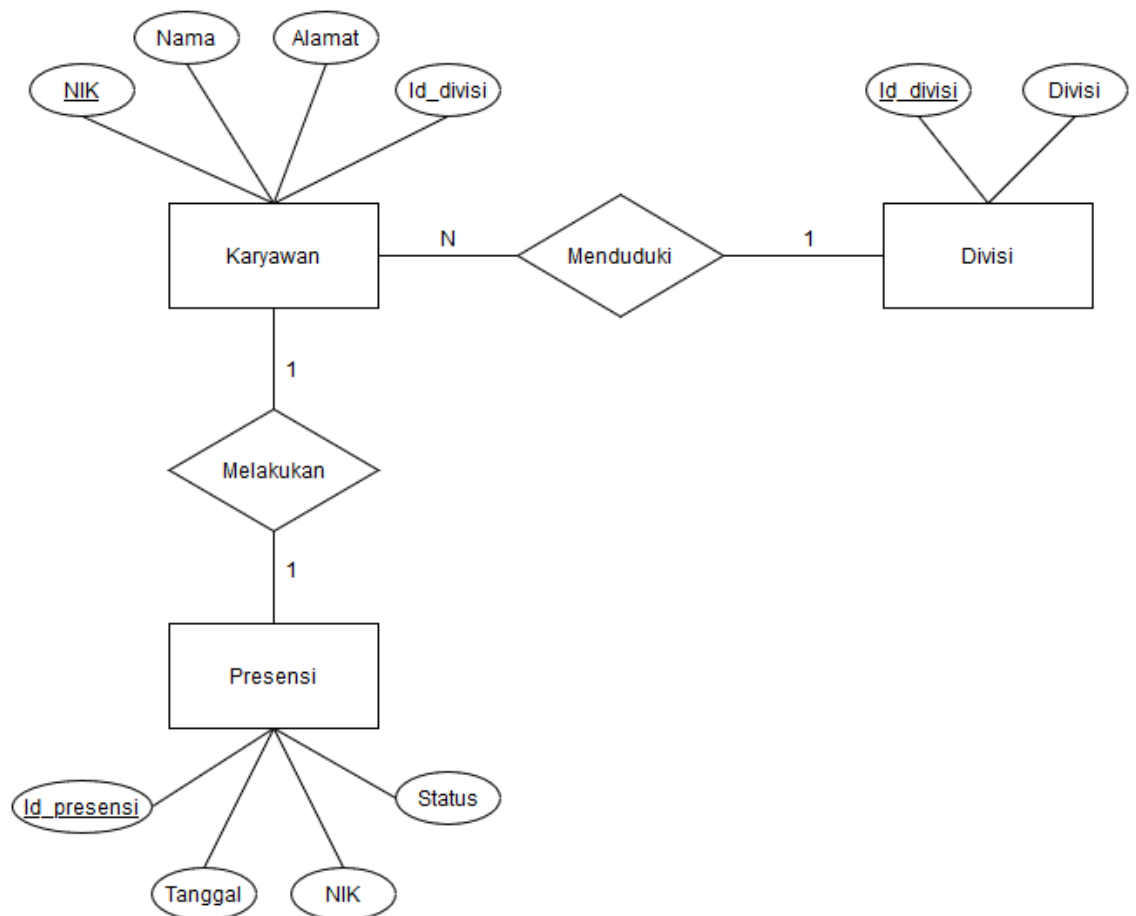
Nama : Sang Aji Indutoro
NIM : L200180003

Program Karyawan Perusahaan

A. Studi Kasus

Aplikasi karyawan perusahaan merupakan aplikasi yang mengelola data karyawan di perusahaan seperti menampilkan, menambah, mengubah, dan menghapus data. Aplikasi ini memiliki 3 tabel yaitu karyawan, divisi, dan presensi. Tabel karyawan memiliki beberapa atribut diantaranya NIK, nama, alamat, dan id divisi. Tabel divisi memiliki atribut id divisi dan divisi (nama divisi). Setiap divisi dapat diduduki oleh beberapa karyawan sekaligus. Masing-masing karyawan yang hadir diwajibkan untuk melakukan presensi sebagai bukti kehadiran. Sedangkan, tabel presensi memiliki atribut id presensi, tanggal, NIK, dan status

B. ERD



C. Implementasi

1) Data Karyawan

NIK	Nama	Alamat	Id Divisi
1	Suparni	Gawok	2
2	Bambang	Solo	3

Source code :

```
public void tampilData(String where) {
    try {
        st = cn.createStatement();
        tabModel.getDataVector().removeAllElements();
        tabModel.fireTableDataChanged();
        rs = st.executeQuery("SELECT * FROM karyawan " + where);

        while (rs.next()) {
            Object[] data = {
                rs.getString("NIK"),
                rs.getString("nama_karyawan"),
                rs.getString("alamat_karyawan"),
                rs.getString("id_divisiFK"),
            };

            tabModel.addRow(data);
        }
    } catch (Exception e) {
        e.printStackTrace();
    }
}
```

Input data karyawan

Data Karyawan

Karyawan
Divisi
Presensi

Tabel Karyawan

NIK	Nama	Alamat	Id Divisi
1	Suparni	Gawok	2
2	Bambang	Solo	3
3	Parno	Gombang	5

NIK:

Nama:

Alamat:

Id Divisi:

Reset
Simpan

Hapus
Update

X

Data berhasil disimpan !

OK

Source code :

```
private void simpanActionPerformed(java.awt.event.ActionEvent evt) {  
    // TODO add your handling code here:  
    try {  
        st = cn.createStatement();  
        st.executeUpdate("INSERT INTO karyawan (NIK, nama_karyawan, alamat_karyawan, id_divisiFK) VALUES('"+ NIK.getText() + "','"+  
            + nama.getText() + "','"+  
            + alamat.getText() + "','"+  
            + id_divisi.getText() + "')");  
        tampilData("");  
        JOptionPane.showMessageDialog(null, "Data berhasil disimpan !");  
        NIK.setText("");  
        nama.setText("");  
        alamat.setText("");  
        id_divisi.setText("");  
    } catch (Exception e) {  
        e.printStackTrace();  
    }  
}
```

Update data karyawan

Data Karyawan

Karyawan Divisi Presensi

Tabel Karyawan

NIK: 2
Nama: Jatmiko
Alamat: Tulungagung
Id Divisi: 3

Reset Simpan
Hapus Update

NIK	Nama	Alamat	Id Divisi
1	Suparni	Gawok	2
2	Jatmiko	Tulungagung	3
3	Pama	Cembaga	5

Message
Update Berhasil
OK

Source code :

```
private void updateActionPerformed(java.awt.event.ActionEvent evt) {  
    // TODO add your handling code here:  
    try {  
        st = cn.createStatement();  
        st.executeUpdate("UPDATE karyawan set "  
            + "NIK='" + NIK.getText() + "', "  
            + "nama_karyawan='" + nama.getText() + "', "  
            + "alamat_karyawan='" + alamat.getText() + "', "  
            + "id_divisiFK='" + id_divisi.getText() + "' "  
            + "where NIK='" + NIK.getText() + "'");  
        tampilData("");  
        JOptionPane.showMessageDialog(null, "Update Berhasil");  
    } catch (Exception e) {  
        e.printStackTrace();  
    }  
}
```

Hapus data karyawan

Data Karyawan

Karyawan Divisi Presensi

Tabel Karyawan

NIK: 3
Nama: Parno
Alamat: Gombang
Id Divisi: 5

Reset Simpan
Hapus Update

NIK	Nama	Alamat	Id Divisi
1	Suparni	Gawok	2
2	Jatmiko	Tulungagung	3
3	Parno	Gombang	5

konfirmasi
Ingin menghapus data?
Yes No

Source code :

```
private void hapusActionPerformed(java.awt.event.ActionEvent evt) {  
    // TODO add your handling code here:  
    try {  
        int jawab;  
  
        if ((jawab = JOptionPane.showConfirmDialog(null, "Ingin menghapus data?", "konfirmasi", JOptionPane.YES_NO_OPTION)) == 0)  
            st = cn.createStatement();  
            st.executeUpdate("DELETE FROM karyawan WHERE NIK='"  
                + tabModel.getValueAt(tabelKaryawan.getSelectedRow(), 0) + "'");  
            tampilData("");  
        }  
    } catch (Exception e) {  
        e.printStackTrace();  
    }  
}
```

2) Data Divisi

Data Karyawan

Karyawan Divisi Presensi

Tabel Divisi

Id Divisi

Divisi

Id Divisi	Divisi
1	Marketing
2	Sales motor
3	Pupuk bawang
4	Ambyar

Reset Simpan Hapus Update

Source code :

```
public void tampilData2(String where) {
    try {
        st = cn.createStatement();
        tabModel12.getDataVector().removeAllElements();
        tabModel12.fireTableDataChanged();
        rs = st.executeQuery("SELECT * FROM divisi " + where);

        while (rs.next()) {
            Object[] data = {
                rs.getString("id_divisi"),
                rs.getString("divisi"),
            };

            tabModel12.addRow(data);
        }
    } catch (Exception e) {
        e.printStackTrace();
    }
}
```

Input data divisi

Data Karyawan

Karyawan Divisi Presensi

Tabel Divisi

Id Divisi: 5
Divisi: Nyantuy

Reset Simpan
Hapus Update

Id Divisi	Divisi
1	Marketing
2	Sales motor
3	Pupuk bawang
4	Ambyar
5	Nyantuy

Message: Data berhasil disimpan! OK

Source code :

```
private void simpanActionPerformed(java.awt.event.ActionEvent evt) {  
    // TODO add your handling code here:  
    try {  
        st = cn.createStatement();  
        st.executeUpdate("INSERT INTO divisi (id_divisi, divisi) VALUES('" + id_div.getText() + "','"  
            + divisi.getText() + "')");  
        tampilData2("");  
        JOptionPane.showMessageDialog(null, "Data berhasil disimpan !");  
        id_div.setText("");  
        divisi.setText("");  
    } catch (Exception e) {  
        e.printStackTrace();  
    }  
}
```

Update data divisi

Data Karyawan

Karyawan Divisi Presensi

Tabel Divisi

Id Divisi: 5
Divisi: Merem

Reset Simpan
Hapus Update

Id Divisi	Divisi
1	Marketing
2	Sales motor
3	Pupuk bawang
4	Ambayar
5	Merem

Message: Update Berhasil OK

Source code :

```
private void update1ActionPerformed(java.awt.event.ActionEvent evt) {  
    // TODO add your handling code here:  
    try {  
        st = cn.createStatement();  
        st.executeUpdate("UPDATE divisi set "  
            + "id_divisi='" + id_div.getText() + "', "  
            + "divisi='" + divisi.getText() + "' "  
            + "where id_divisi='" + id_div.getText() + "'");  
        tampilData2("");  
        JOptionPane.showMessageDialog(null, "Update Berhasil");  
    } catch (Exception e) {  
        e.printStackTrace();  
    }  
}
```


Hapus data divisi

Data Karyawan

Karyawan Divisi Presensi

Tabel Divisi

Id Divisi	Divisi
1	Marketing
2	Sales motor
3	Pupuk bawang
4	Ambyar
5	Merem

Id Divisi: 5

Divisi: Merem

Reset Simpan Hapus Update

konfirmasi
? Ingin menghapus data?
Yes No

Source code :

```
private void hapusActionPerformed(java.awt.event.ActionEvent evt) {  
    // TODO add your handling code here:  
    try {  
        int jawab2;  
  
        if ((jawab2 = JOptionPane.showConfirmDialog(null, "Ingin menghapus data?", "konfirmasi", JOptionPane.YES_NO_OPTION)) == 0)  
        {  
            st = cn.createStatement();  
            st.executeUpdate("DELETE FROM divisi WHERE id_divisi='"  
                + tabModel1.getValueAt(tabelDivisi.getSelectedRow(), 0) + "'");  
            tampilData2("");  
        }  
    } catch (Exception e) {  
        e.printStackTrace();  
    }  
}
```

3) Data Presensi

Data Karyawan

Karyawan Divisi **Presensi**

Tabel Presensi

Id Presensi

Tanggal

NIK

Status

Reset Simpan

Hapus Update

Id Presensi	Tanggal	NIK	Status
1	2020-06-09	2	Mashok

Source code :

```
public void tampilData3(String where) {
    try {
        st = cn.createStatement();
        tabModel3.getDataVector().removeAllElements();
        tabModel3.fireTableDataChanged();
        rs = st.executeQuery("SELECT * FROM presensi " + where);

        while (rs.next()) {
            Object[] data = {
                rs.getString("id_pres"),
                rs.getString("tanggal"),
                rs.getString("nikFK"),
                rs.getString("status"),
            };

            tabModel3.addRow(data);
        }
    } catch (Exception e) {
        e.printStackTrace();
    }
}
```

Input data presensi

Data Karyawan

Karyawan
Divisi
Presensi

Tabel Presensi

Id Presensi	Tanggal	NIK	Status
1	2020-06-09	2	Mashok
2	2020-06-10	2	Mashok

Id Presensi

Tanggal

NIK

Status

Source code :

```
private void simpan2ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    try {
        st = cn.createStatement();
        st.executeUpdate("INSERT INTO presensi (id_pres, tanggal, nikFK, status) VALUES(' + id_pres.getText() + ',' +
            + tanggal.getText() + ',' +
            + nik_fk.getText() + ',' +
            + status.getText() + ')");
        tampilData3("");
        JOptionPane.showMessageDialog(null, "Data berhasil disimpan !");
        id_pres.setText("");
        tanggal.setText("");
        nik_fk.setText("");
        status.setText("");
    } catch (Exception e) {
        e.printStackTrace();
    }
}
```

Update data presensi

Data Karyawan

Karyawan Divisi **Presensi**

Tabel Presensi

Id Presensi: 2
Tanggal: 2020-06-10
NIK: 3
Status: Mashok

Reset Simpan
Hapus Update

Id Presensi	Tanggal	NIK	Status
1	2020-06-09	2	Mashok
2	2020-06-10	3	Mashok

Message: Update Berhasil OK

Source code :

```
private void update2ActionPerformed(java.awt.event.ActionEvent evt) {  
    // TODO add your handling code here:  
    try {  
        st = cn.createStatement();  
        st.executeUpdate("UPDATE presensi set "  
            + "id_pres='" + id_pres.getText() + "', "  
            + "tanggal='" + tanggal.getText() + "', "  
            + "nikFK='" + nik_fk.getText() + "', "  
            + "status='" + status.getText() + "' "  
            + "where id_pres='" + id_pres.getText() + "'");  
        tampilData3("");  
        JOptionPane.showMessageDialog(null, "Update Berhasil");  
    } catch (Exception e) {  
        e.printStackTrace();  
    }  
}
```

Hapus data presensi

The screenshot shows a web application window titled "Data Karyawan". It has three tabs: "Karyawan", "Divisi", and "Presensi", with "Presensi" selected. Below the tabs is a section titled "Tabel Presensi". On the left, there are input fields for "Id Presensi" (value: 2), "Tanggal" (value: 2020-06-10), "NIK" (value: 3), and "Status" (value: Mashok). Below these fields are buttons for "Reset", "Simpan", "Hapus", and "Update". To the right is a table with the following data:

Id Presensi	Tanggal	NIK	Status
1	2020-06-09	2	Mashok
2	2020-06-10	3	Mashok

A confirmation dialog box titled "konfirmasi" is open, asking "Ingin menghapus data?" with "Yes" and "No" buttons.

Source code :

```
private void hapus2ActionPerformed(java.awt.event.ActionEvent evt) {  
    // TODO add your handling code here:  
    try {  
        int jawab3;  
  
        if ((jawab3 = JOptionPane.showConfirmDialog(null, "Ingin menghapus data?", "konfirmasi", JOptionPane.YES_NO_OPTION)) == 0)  
        {  
            st = cn.createStatement();  
            st.executeUpdate("DELETE FROM presensi WHERE id_pres=" +  
                tabModel3.getValueAt(tabelPresensi.getSelectedRow(), 0) + "");  
            tampilData3("");  
        }  
    } catch (Exception e) {  
        e.printStackTrace();  
    }  
}
```

Database :

The screenshot shows the phpMyAdmin interface for a database named "karyawan". The left sidebar shows the database structure with tables "divisi", "karyawan", and "presensi". The main panel shows the structure of the "presensi" table:

Table	Action	Rows	Type	Collation	Size	Overhead
divisi	Browse Structure Search Insert Empty Drop	4	InnoDB	latin1_swedish_ci	16 K B	-
karyawan	Browse Structure Search Insert Empty Drop	2	InnoDB	latin1_swedish_ci	16 K B	-
presensi	Browse Structure Search Insert Empty Drop	1	InnoDB	latin1_swedish_ci	16 K B	-
3 tables	Sum	7	InnoDB	latin1_swedish_ci	48 K B	0 B