LAPORAN TUGAS MATA KULIAH

PEMROGRAMAN BERORIENTASI OBYEK

Pertemuan Keempat Belas: Penerapan Download Data File Csv

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DISUSUN OLEH
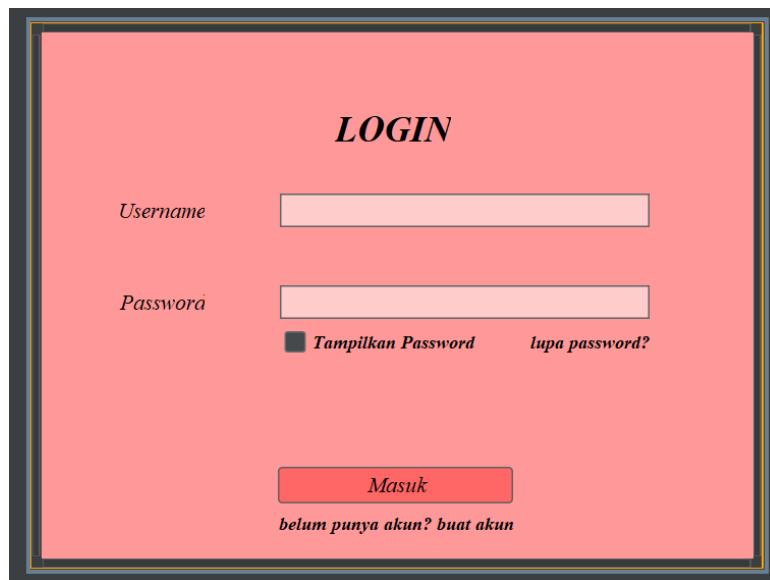
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A. PRAKTIKUM

1) Login

a. membuat Jframe Login

b. code tombol masuk

```
private void btnMasukActionPerformed(java.awt.event.ActionEvent evt) {
    if (txtUsername.getText().equals("")) {
        JOptionPane.showMessageDialog(this, "Isi Semua Data!",
            "Peringatan", JOptionPane.WARNING_MESSAGE);
    } else if (new String(txtPW.getPassword()).equals("")) {
        JOptionPane.showMessageDialog(this, "Isi Semua Data!",
            "Peringatan", JOptionPane.WARNING_MESSAGE);
    } else {
        try {
            EntityManager em = emf.createEntityManager();
            em.getTransaction().begin();

            TypedQuery<Pw> query = em.createQuery(
                "SELECT a FROM Pw a WHERE a.username = :u AND a.password = :p", Pw.class);
            query.setParameter("u", txtUsername.getText());
            query.setParameter("p", new String(txtPW.getPassword()));

            List<Pw> hasil = query.getResultList();

            if (!hasil.isEmpty()) {
                JOptionPane.showMessageDialog(this,
                    "Login berhasil! Selamat datang, " + txtUsername.getText() + ".",
                    "Sukses", JOptionPane.INFORMATION_MESSAGE);

                new tugasp144.DataPendudukk().setVisible(true);
                dispose();
            } else {
                JOptionPane.showMessageDialog(this,
                    "Username atau Password salah!",
                    "Gagal Login", JOptionPane.ERROR_MESSAGE);
            }

            em.getTransaction().commit();
        } catch (Exception e) {
            JOptionPane.showMessageDialog(this,
                "Terjadi kesalahan koneksi ke database: " + e.getMessage(),
                "Error", JOptionPane.ERROR_MESSAGE);
        }
    }
```
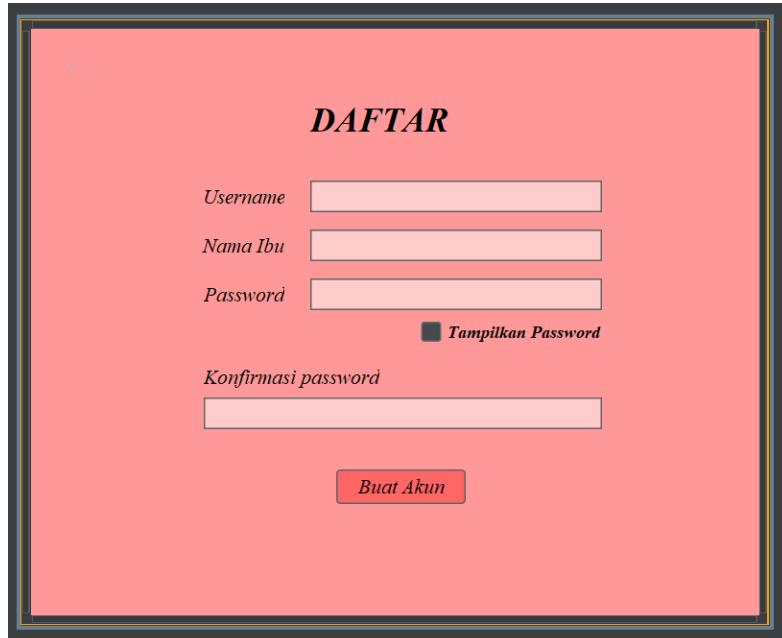
2) Daftar Akun

a. Membuah Jdialog Daftar

b. Kode pada tombol buat dengan tambahan nama ibu dan konfirmasi password

```java
private void btnMasukActionPerformed(java.awt.event.ActionEvent evt) {
    String pw1 = new String(txtPW1.getPassword()).trim();
    String pw2 = new String(txtPW2.getPassword()).trim();
    char[] p1 = txtPW1.getPassword();
    char[] p2 = txtPW2.getPassword();

    if (txtUsername.getText().equals("")) {
        JOptionPane.showMessageDialog(this, "Isi Semua Data!",
                "Peringatan", JOptionPane.WARNING_MESSAGE);
    } else if (pw1.equals("")) {
        JOptionPane.showMessageDialog(this, "Isi Semua Data!",
                "Peringatan", JOptionPane.WARNING_MESSAGE);
    }else if (pw2.equals("")) {
        JOptionPane.showMessageDialog(this, "Isi Semua Data!",
                "Peringatan", JOptionPane.WARNING_MESSAGE);
    } else if (txtIbu.getText().equals("")) {
        JOptionPane.showMessageDialog(this, "Isi Semua Data!",
                "Peringatan", JOptionPane.WARNING_MESSAGE);
    }else if (!Arrays.equals(p1, p2)) {
        JOptionPane.showMessageDialog(this,
                "Password dan Konfirmasi Password tidak sama!",
                "Peringatan", JOptionPane.WARNING_MESSAGE);
    } else {
        try {

            EntityManager em = emf.createEntityManager();
            em.getTransaction().begin();

            Pw a = new Pw();
            a.setUsername(txtUsername.getText());
            a.setPassword(new String(txtPW1.getPassword()));
            a.setIbu(txtIbu.getText());

            em.persist(a);
            em.getTransaction().commit();

            JOptionPane.showMessageDialog(this, "Akun " + txtUsername.getText() + " berhasil dibuat!");
            bersih();
            dispose();
        } catch (Exception e) {
            JOptionPane.showMessageDialog(this, "Error: " + e.getMessage());
```
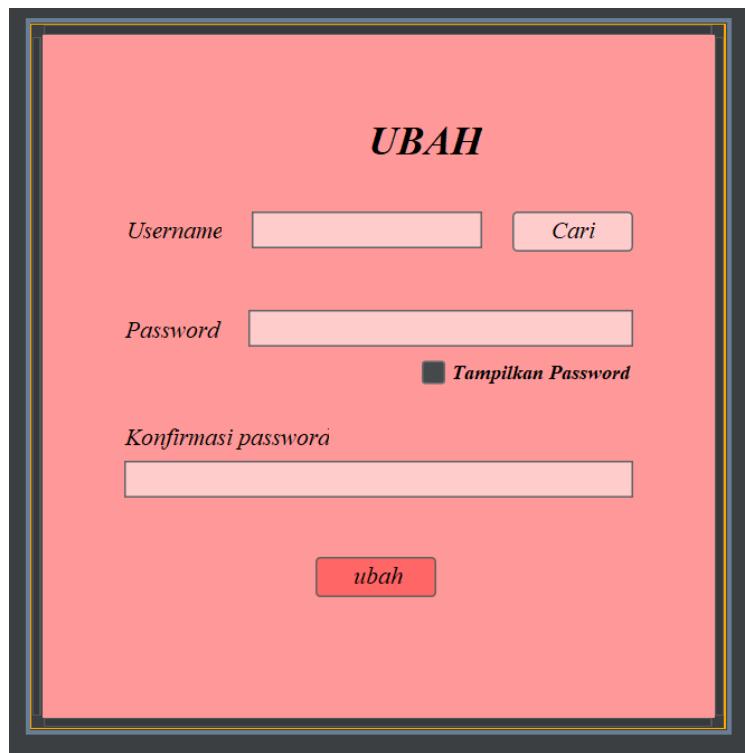
3) JDialog Ubah Password

a. Kode pada tombol ubah

```java
private void btnUbahActionPerformed(java.awt.event.ActionEvent evt) {

    String pw1 = new String(txtPW1.getPassword()).trim();
    String pw2 = new String(txtPW2.getPassword()).trim();
    char[] p1 = txtPW1.getPassword();
    char[] p2 = txtPW2.getPassword();

    if (pw1.equals("")) {
        JOptionPane.showMessageDialog(this, "Isi Semua Data!",
                "Peringatan", JOptionPane.WARNING_MESSAGE);
    } else if (pw2.equals("")) {
        JOptionPane.showMessageDialog(this, "Isi Semua Data!",
                "Peringatan", JOptionPane.WARNING_MESSAGE);
    } else if (!Arrays.equals(p1, p2)) {
        JOptionPane.showMessageDialog(this,
                "Password dan Konfirmasi Password tidak sama!",
                "Peringatan", JOptionPane.WARNING_MESSAGE);
    } else {
        try {
            EntityManager em = emf.createEntityManager();
            em.getTransaction().begin();

            Pw a = em.find(Pw.class, txtUsername.getText());
            a.setPassword(new String(txtPW1.getPassword()));


            em.merge(a);
            em.getTransaction().commit();

            JOptionPane.showMessageDialog(this, "Password berhasil diubah!");
            dispose();
        } catch (Exception e) {
            JOptionPane.showMessageDialog(this,
                    "Terjadi kesalahan koneksi: " + e.getMessage(),
                    "Error", JOptionPane.ERROR_MESSAGE);
        }
    }
}
```

b. Kode pada tomblor cari dan tambahan jOptionPane konfirmasi nama ibu saat ingin merubah password

```java
if (txtUsername.getText().equals("")) {
    JOptionPane.showMessageDialog(this, "Isi Username!",
            "Peringatan", JOptionPane.WARNING_MESSAGE);
} else {
    try {
        EntityManager em = emf.createEntityManager();
        em.getTransaction().begin();

        Pw a = em.find(Pw.class, txtUsername.getText());

        if (a != null) {
            String Ibu = JOptionPane.showInputDialog(
                    this,
                    "Username ditemukan!"
                    + "Masukkan Nama Ibu.",
                    "konfirmasi", JOptionPane.INFORMATION_MESSAGE);
            if (Ibu == null) {
                return;
            }
            if (!Ibu.equalsIgnoreCase(a.getIbu())) {
                JOptionPane.showMessageDialog(this,
                        "Nama Ibu tidak sesuai!",
                        "Peringatan", JOptionPane.WARNING_MESSAGE);
                return;
            }
            JOptionPane.showMessageDialog(this,
                    "Verifikasi berhasil! Silahkan ubah password.",
                    "Informasi", JOptionPane.INFORMATION_MESSAGE);
            jPanel2.setVisible(true);
            txtPW1.requestFocus();
        } else {
            JOptionPane.showMessageDialog(this,
                    "Username tidak ditemukan!",
                    "Error", JOptionPane.ERROR_MESSAGE);
        }
        em.getTransaction().commit();
    } catch (Exception e) {
        JOptionPane.showMessageDialog(this,
                "Terjadi kesalahan koneksi: " + e.getMessage(),
```
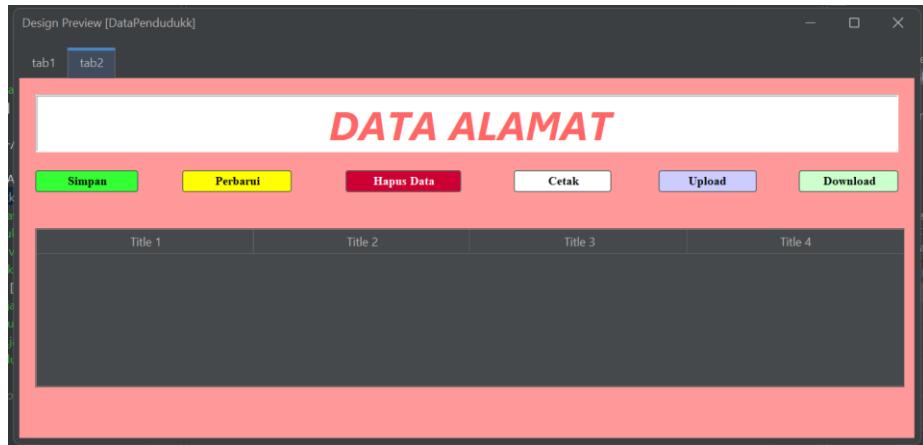
4) Menambahkan fitur Download Data

a. Menambahkan tombol download pada tabbed pane tabel

b. Kode pada tombol download

```java
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    try {
        if (jTable2.getRowCount() == 0) {
            JOptionPane.showMessageDialog(this, "Tidak ada data untuk diekspor!");
            return;
        }

        JFileChooser chooser = new JFileChooser();
        chooser.setDialogTitle("Simpan Data Mengajar");

        int result = chooser.showSaveDialog(this);

        if (result == JFileChooser.APPROVE_OPTION) {

            String path = chooser.getSelectedFile().getAbsolutePath();

            if (!path.toLowerCase().endsWith(".csv")) {
                path += ".csv";
            }

            exportToCSV(jTable2, path);

            JOptionPane.showMessageDialog(this, "Data berhasil diekspor ke:\n" + path);
        }

    } catch (Exception e) {
        JOptionPane.showMessageDialog(this, "Gagal ekspor: " + e.getMessage());
    }
```
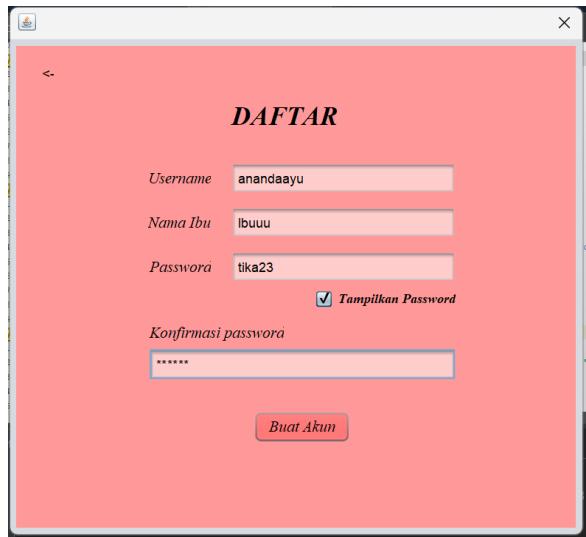
5) Tambahkan method untuk menyimpan dalam bentuk .csv

```java
public void exportToCSV(JTable table, String filePath) {
    try (FileWriter writer = new FileWriter(filePath)) {

        TableModel model = table.getModel();

        for (int i = 0; i < model.getColumnCount(); i++) {
            writer.append(model.getColumnName(i));
            if (i < model.getColumnCount() - 1) {
                writer.append(",");
            }
        }
        writer.append("\n");
        for (int row = 0; row < model.getRowCount(); row++) {
            for (int col = 0; col < model.getColumnCount(); col++) {
                Object value = model.getValueAt(row, col);
                writer.append(value == null ? "" : value.toString());
                if (col < model.getColumnCount() - 1) {
                    writer.append(",");
                }
            }
            writer.append("\n");
        }
        writer.flush();
        JOptionPane.showMessageDialog(this, "Data berhasil diekspor ke CSV!");

    } catch (Exception e) {
        JOptionPane.showMessageDialog(this, "Gagal ekspor CSV: " + e.getMessage());
    }
```
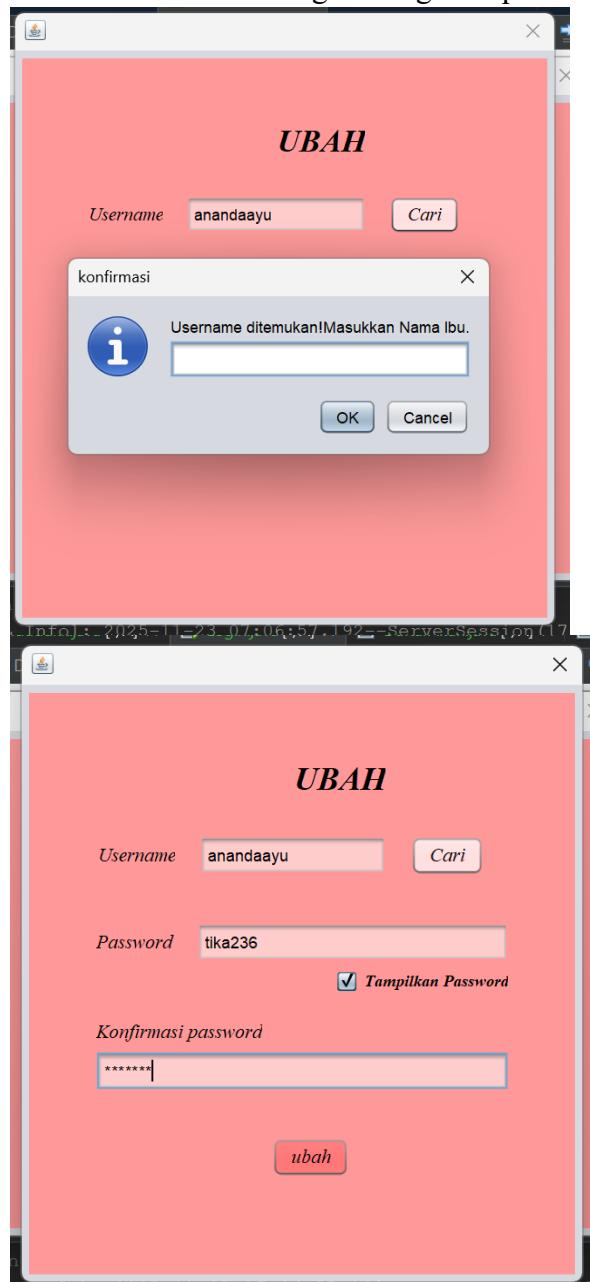
6) Output

a. Tampilan daftar akun

b. Konfirmasi nama ibu saat ingin mengubah password

c. Saat ingin download data tabel