**Package project**:

Mặc định biến **Connection con** đã được thực hiện kết nối cơ sở dữ liệu.

public class ConnectionProvider {

public static Connection getCon(){

Connection con = DriverManager.getConnection();

return con;

}

}

InsertUpdateDelete:

public class InsertUpdateDelete {

public static void setData(String query) {

Connection con = ConnectionProvider.getCon();

Statement st = con.createStatement();

st.executeUpdate(query);

}

}

Select

public class Select {

public static ResultSet getData(String query){

Connection con = ConnectionProvider.getCon();

Statement st = con.createStatement();

ResultSet rs = st.executeQuery(query);

return rs;

}

}

**Package BaiGiai:**

**Câu 1:**

public class themdienthoai extends JFrame implements ActionListener {

JButton themButton;

JLabel soIMEI, tenDT, loaiDT, hotenKH, SDTKH;

JTextField tSoIMEI, tTenDT, tHoTenKH, tSoDTKH;

JComboBox<String> cLoaiDT;

String \_soIMEI, \_tenDT, \_loaiDT, \_hotenKH, \_SDTKH;

themdienthoai(){

soIMEI = new JLabel("soIMEI");

tSoIMEI = new JTextField("1234567890");

tenDT = new JLabel("Ten dien thoai");

tTenDT = new JTextField("Ten dien thoai");

loaiDT = new JLabel("Loai dien thoai");

cLoaiDT = new JComboBox<String>();

cLoaiDT.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "Loai 1", "Loai 2" }));

hotenKH = new JLabel("Ho ten khach hang");

tHoTenKH = new JTextField("Ho ten khach hang");

SDTKH = new JLabel(" So dien thoai khach hang");

tSoDTKH = new JTextField("So dien thoai khach hang");

themButton = new JButton("Them");

this.add(soIMEI); this.add(tSoIMEI); this.add(tenDT); this.add(tTenDT); this.add(loaiDT); this.add(cLoaiDT); this.add(hotenKH); this.add(tHoTenKH); this.add(SDTKH); this.add(tSoDTKH); this.add(themButton);

themButton.setActionCommand("them");

themButton.addActionListener(this);

}

public static void main(String[] args){

themdienthoai themdienthoai = new themdienthoai();

}

public void actionPerformed(ActionEvent e) {

if("them".equals(e.getActionCommand())){

\_soIMEI = tSoIMEI.getText();

\_tenDT = tTenDT.getText();

\_loaiDT = (String)cLoaiDT.getSelectedItem();

\_hotenKH = tHoTenKH.getText();

\_SDTKH = tSoDTKH.getText();

String query = "insert into DIENTHOAI (IMEI, TENDT, LOAIDT, HOTENKH, SDTKH) values ('"+\_soIMEI+"','"+ \_tenDT+"','"+\_loaiDT+"','"+ \_hotenKH+"','"+ \_SDTKH+"')";

InsertUpdateDelete.setData(query);

}

}

}

**Câu 2:**

public class themSuaChua extends JFrame implements ActionListener {

JButton themButton;

JLabel LIMEI, LTenDT, LHoTenKH, LNgayLap, LND;

JTextField TIMEI, TTenDT, THoTenKH, TNgayLap;

JTextArea TAND;

themSuaChua(){

LIMEI = new JLabel("So IMEI");

TIMEI = new JTextField("123456789");

LTenDT = new JLabel("Ten dien thoai");

TTenDT = new JTextField("Iphone 13 Pro");

LHoTenKH = new JLabel("Ho ten khach hang");

THoTenKH = new JTextField("Nguyen C");

LNgayLap = new JLabel("Ngay lap");

TNgayLap = new JTextField("2022/06/1");

LND = new JLabel("Noi dung sua chua");

TAND = new JTextArea("Thay man hinh");

themButton = new JButton("Them");

TTenDT.setEditable(false);

THoTenKH.setEditable(false);

this.add(LIMEI); this.add(TIMEI); this.add(LTenDT); this.add(TTenDT); this.add(LHoTenKH); this.add(THoTenKH); this.add(LNgayLap); this.add(TNgayLap); this.add(LND); this.add(TAND); this.add(themButton); this.add(themButton);

themButton.setActionCommand("them");

themButton.addActionListener(this);

TIMEI.setActionCommand("enter");

TIMEI.addActionListener(this);

}

public static void main(String[] args){

themSuaChua theSuaChua = new themSuaChua();

}

public void actionPerformed(ActionEvent e) {

if("them".equals(e.getActionCommand())){

String ngayLap = TNgayLap.getText();

String noiDung = TAND.getText();

String imei = TIMEI.getText();

String query = "insert into SUACHUA (NGAYLAP, NOIDUNG, IMEI) values ('"+ngayLap+"','"+ noiDung+"','"+imei+"')";

InsertUpdateDelete.setData(query);

}

if("enter".equals(e.getActionCommand())){

String imei = TIMEI.getText();

String query = "select \* from DIENTHOAI where IMEI = '"+imei+"'";

ResultSet rs = Select.getData(query);

while(rs.next()){

TTenDT.setText(rs.getString(2));

THoTenKH.setText(rs.getString(4));

}

}

}

}

**Câu 3**

public class thongTinSuaChua extends JFrame implements ActionListener {

JButton themButton;

JLabel LIMEI, LTenDT, LHoTenKH, LNgayLap, LND, LDSCV, LDSCVSC;

JTextField TIMEI, TTenDT, THoTenKH, TNgayLap;

JTextArea TAND;

JTable DSCV, DSSC;

JScrollPane SCV, SSC;

String maPSC , imei, ngaylap;

thongTinSuaChua() {

CreateAndShow();

showDSCV();

}

private void CreateAndShow(){

LIMEI = new JLabel("So IMEI");

TIMEI = new JTextField("123456789");

LTenDT = new JLabel("Ten dien thoai");

TTenDT = new JTextField("Iphone 13 Pro");

LHoTenKH = new JLabel("Ho ten khach hang");

THoTenKH = new JTextField("Nguyen C");

LNgayLap = new JLabel("Ngay lap");

TNgayLap = new JTextField("2022/06/1");

LND = new JLabel("Noi dung sua chua");

TAND = new JTextArea("Thay man hinh");

themButton = new JButton("Them");

TTenDT.setEditable(false);

THoTenKH.setEditable(false);

TAND.setEditable(false);

LDSCV = new JLabel("Danh sach cong viec");

DSCV = new JTable();

DSCV.setModel(new javax.swing.table.DefaultTableModel(

new Object [][] {

},

new String [] {

"Ma cong viec", "Cong viec"

}

));

LDSCVSC = new JLabel("Danh sach sua chua");

DSSC = new JTable();

DSSC.setModel(new javax.swing.table.DefaultTableModel(

new Object [][] {

},

new String [] {

"Cong viec", "Don gia"

}

));

SCV = new JScrollPane();

SSC = new JScrollPane();

SCV.setViewportView(DSCV);

SSC.setViewportView(DSSC);

this.add(LIMEI); this.add(TIMEI); this.add(LTenDT); this.add(TTenDT); this.add(LHoTenKH); this.add(THoTenKH); this.add(LNgayLap); this.add(TNgayLap); this.add(LND); this.add(TAND); this.add(LDSCV); this.add(SCV); this.add(LDSCVSC); this.add(SSC); this.add(themButton);

themButton.setActionCommand("them");

themButton.addActionListener(this);

TIMEI.setActionCommand("enter");

TIMEI.addActionListener(this);

TNgayLap.setActionCommand("enter2");

TNgayLap.addActionListener(this);

DSCV.addMouseListener(new java.awt.event.MouseAdapter() {

public void mouseClicked(java.awt.event.MouseEvent evt) {

DSCVMouseClicked(evt);

}

});

}

public void actionPerformed(ActionEvent e) {

if("enter".equals(e.getActionCommand())){

imei = TIMEI.getText();

String query = "select \* from DIENTHOAI where IMEI = '"+imei+"'";

ResultSet rs = Select.getData(query);

while(rs.next()){

TTenDT.setText(rs.getString(2));

THoTenKH.setText(rs.getString(4));

}

}

if("enter2".equals(e.getActionCommand())){

ngaylap = TNgayLap.getText();

imei = TIMEI.getText();

String query = "select \* from SUACHUA where IMEI = '"+imei+"' and NGAYLAP = '"+ngaylap+"'";

ResultSet rs = Select.getData(query);

while(rs.next()){

TAND.setText(rs.getString(3));

}

}

if("them".equals(e.getActionCommand())){

String query = "select \* from CONGVIEC CV, CT\_SC CT where CV.MACV = CT.MACV and CT.MAPSC ='"+maPSC+"'";

ResultSet rs = Select.getData(query);

long tong = 0;

while(rs.next()){

tong += (rs.getInt(3));

}

query = "update SUACHUA set TONGTIEN = "+tong+" where MAPSC = '"+maPSC+"'";

InsertUpdateDelete.setData(query);

}

}

private void showDSCV() {

String query = "select \* from CONGVIEC";

ResultSet rs = Select.getData(query);

DefaultTableModel model = (DefaultTableModel) DSCV.getModel();

model.setRowCount(0);

while(rs.next()){

model.addRow(new Object[]{

rs.getString(1), rs.getString(2)

});

}

}

private void DSCVMouseClicked(MouseEvent evt) {

int index = DSCV.getSelectedRow();

TableModel model = DSCV.getModel();

String maCV = model.getValueAt(index,0).toString();

ngaylap = TNgayLap.getText();

imei = TIMEI.getText();

String query = "select \* from SUACHUA where IMEI = '"+imei+"' and NGAYLAP = '"+ngaylap+"'";

ResultSet rs = Select.getData(query);

while(rs.next()){

maPSC = rs.getString(1);

}

query = "insert into CT\_SC (MAPSC, MACV) values ('"+maPSC+"','"+ maCV+"')";

InsertUpdateDelete.setData(query);

showDSSC(maPSC);

}

public static void main(String[] args) {

thongTinSuaChua ttsc = new thongTinSuaChua();

}

private void showDSSC(String maPSC) {

String query = "select \* from CONGVIEC CV, CT\_SC CT where CV.MACV = CT.MACV and CT.MAPSC ='"+maPSC+"'";

ResultSet rs = Select.getData(query);

DefaultTableModel model = (DefaultTableModel) DSSC.getModel();

model.setRowCount(0);

while(rs.next()){

model.addRow(new Object[]{

rs.getString(2), rs.getString(3)

});

}

}

}

**Ngoài lề:**

Load cơ sở dữ liệu vào Compobox và cách lấy thông tin từ Compobox:

public class test2 extends JFrame implements ActionListener {

JComboBox<String> cLoaiDT;

JButton themButton;

String a;

test2(){

cLoaiDT = new JComboBox<String>();

themButton = new JButton("Them");

this.add(cLoaiDT);

this.add(themButton);

ResultSet rs = Select.getData("select \* from congviec");

while(rs.next()){

cLoaiDT.addItem(rs.getString(2));

}

themButton.setActionCommand("them");

themButton.addActionListener(this);

}

public static void main(String[] args) {

test2 t = new test2();

}

public void actionPerformed(ActionEvent e) {

a = (String)cLoaiDT.getSelectedItem();

if("them".equals(e.getActionCommand())){

System.out.println(a);

}

}

}