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/********
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Dentist Project
CIST2373
********/

package Business;
import java.sql.*;

/*************************************************************
 * The Patient Class communicates with the Patient table of the database
 *
 *************************************************************/

public class Patient
{
    /*******************Properties***************/
    private String patId, password, firstName, lastName, address, email, insurance, desc;
    public AppointmentList aList = new AppointmentList();
    public Appointments app = new Appointments();

    /*******************Constructors***************/
    public Patient()
    {
        patId = "";
        password = "";
        firstName = "";
        lastName = "";
        address = "";
        email = "";
        insurance = "";
    }
    public Patient(String patId, String password, String firstName, String lastName, String address, String email, String insurance)
    {
        this.patId = patId;
        this.password = password;
        this.firstName = firstName;
        this.lastName = lastName;
        this.address = address;
        this.email = email;
        this.insurance = insurance;

    }
     /*******************Behaviors***************/
    public void setPatientID(String pid){patId=pid;}
    public String getPatientID() {return patId; }

    public void setPatientPassword(String pw){password=pw;}
    public String getPatientPassword(){return password;}

    public void setPatientFirstName(String fn){firstName=fn;}
    public String getPatientFirstName(){return firstName;}

    public void setPatientLastName(String ln){lastName = ln; }
    public String getPatientLastName() {return lastName; }

    public void setAddress(String addr){address = addr; }
    public String getAddress() {return address; }

    public void setEmail(String em){email = em; }
    public String getEmail() {return email; }

    public void setInsurance(String ins){insurance = ins; }
    public String getInsurance() {return insurance;}

    public void setPatDesc(String des){desc = des; }
    public String getPatDesc() {return desc;}

     /************DB Behaviors*******************************/
/*************************************************************
*  Search the Patients table in the db. The string argument will filter by patient id.
*  Appointment data will be stored from appointment class method selectDB().
*************************************************************/
       public void selectDB(String i)
       {
           try
           {
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            //Load Driver - Step #1
                Class.forName("net.ucanaccess.jdbc.UcanaccessDriver");
            //Get Connection from the Driver - Step #2
                Connection c1;
                c1=DriverManager.getConnection("jdbc:ucanaccess://C:/Users/kerds/OneDrive/School/Java3/Dentist/DentistOfficeMDB.mdb");


            //Create a Statement - Step #3
               Statement stmt = c1.createStatement();
               ResultSet rs = stmt.executeQuery("Select * from Patients where patId = '" + i + "'");

            //Process ResultSet
            rs.next();
            patId = rs.getString(6);
            password = rs.getString(7);
            firstName = rs.getString(1);
            lastName = rs.getString(2);
            address = rs.getString(3);
            email = rs.getString(4);
            insurance = rs.getString(5);
            c1.close();
            app.selectDB(i);
            desc = app.pr1.getProcDesc();
            }
                catch(Exception se)
                {
                System.out.println(se);
                }
        } //end selectDB()

/*************************************************************
 *  Create a database entry for a new Dentist in db Patient table
 ************************************************************/
public void insertDB(String id, String pw, String fn, String ln, String addr, String em, String ins){

        setPatientID(id);
        setPatientPassword(pw);
        setPatientFirstName(fn);
        setPatientLastName(ln);
        setAddress(addr);
        setEmail(em);
        setInsurance(ins);
        this.patId = id;
        this.password = pw;
        this.firstName = fn;
        this.lastName = ln;
        this.address = addr;
        this.email = em;
        this.insurance = ins;

        try{
            Class.forName("net.ucanaccess.jdbc.UcanaccessDriver");
            Connection con = DriverManager.getConnection("jdbc:ucanaccess://C:/Users/kerds/OneDrive/School/Java3/Dentist/DentistOfficeMDB.mdb");

            Statement stmt = con.createStatement();
            String sql = "Insert into Patients values('"+getPatientFirstName()+"',"+
                                                    "'"+getPatientLastName()+"',"+
                                                    "'"+getAddress()+"',"+
                                                    "'"+getEmail()+"',"+
                                                    "'"+getInsurance()+"',"+
                                                    "'"+getPatientID()+"',"+
                                                    "'"+getPatientPassword()+"')";

            System.out.println(sql);
            int n1 = stmt.executeUpdate(sql);
            if (n1==1)
                System.out.println("INSERT Successful!!!");
            else
                System.out.println("INSERT FAILED***********");
            con.close();
        }
        catch(Exception e1){
            System.out.println(e1);
        }

    }//end insertDB()
```

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/************************************************************
 *  Update an existing dentist entry in db Patient table
 ************************************************************/
public void updateDB(){


       try{
          Class.forName("net.ucanaccess.jdbc.UcanaccessDriver");
           Connection con = DriverManager.getConnection("jdbc:ucanaccess://C:/Users/kerds/OneDrive/School/Java3/Dentist/DentistOfficeMDB.mdb");

           Statement stmt = con.createStatement();
           String sql = "update Patients set firstName = '"+getPatientFirstName() + "',"+
                                       " lastName ='"+getPatientLastName()+"',"+
                                       " addr ='"+getAddress() +"',"+
                                       " email ='"+getEmail()+"',"+
                                       " insCo ='"+getInsurance()+"',"+
                                       " passwd = '"+getPatientPassword() +"'"+
                                       " where patId='"+getPatientID()+"'";

           System.out.println(sql);
           int n = stmt.executeUpdate(sql);
           if (n==1)
               System.out.println("UPDATE Successful!!!");
           else
               System.out.println("UPDATE FAILED***********");
           con.close();
       }
       catch(Exception e1){
           System.out.println(e1);
       }

   }//end updateDB()


/************************************************************
 *  Displays Patient info to console
 ************************************************************/
       public void display()
   {
       System.out.println("Patient ID = " + getPatientID());
       System.out.println("Patient Password = " +getPatientPassword());
       System.out.println("Patient Name = " + getPatientFirstName() + " " + getPatientLastName());
       System.out.println("Email = " + getEmail());
       System.out.println("Address = " + getAddress());
       System.out.println("Insurance = " + getInsurance());
   }
/************************************************************
 *  Deletes existing entry in Patient table in db
 ************************************************************/
       public void deleteDB(){

       try{
           Class.forName("net.ucanaccess.jdbc.UcanaccessDriver");
           Connection con = DriverManager.getConnection("jdbc:ucanaccess://C:/Users/kerds/OneDrive/School/Java3/Dentist/DentistOfficeMDB.mdb");

           Statement stmt = con.createStatement();
           String sql = "Delete from Patients where patId='"+getPatientID()+"'";
           System.out.println(sql);
           int n = stmt.executeUpdate(sql);
           if (n==1)
               System.out.println("DELETE Successful!!!");
           else
               System.out.println("DELETE FAILED***********");
           con.close();
       }
       catch(Exception e1){
           System.out.println(e1);
       }

       }//end deleteDB()
       public static void main(String args[]) {

           //Patient p1;
           //p1 = new Patient();
           //p1.selectDB("A906");
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            //p1.app.pr1.display();


            /************Select and Display test*****************/
            //Patient p1;
            //p1 = new Patient();
            //p1.selectDB("A900");
            //p1.display();

            /************Insert test*****************/
            //Patient p2;
            //p2 = new Patient();
            //p2.insertDB("A912", "4323", "Shawn", "Embry", "Woodstock", "ShawnEmbry@mail.com", "CareSource");

            /************Update test*****************/
            //Patient p3 = new Patient();
            //p3.selectDB("A912");
            //p3.setPatientLastName("Jones");
            //p3.setPatientFirstName("Shawn");
            //p3.setPatientPassword("1234");
            //p3.updateDB();
            //p3.display();


            /************Delete test*****************/
            //Patient p4 = new Patient();
            //p4.selectDB("A912");
            //p4.deleteDB();
        }
}//End of Patients Class
```