23. ANEXA. APLICAŢIA MAGAZIN

În această anexă prezentăm diagrama de clase de proiectare (Figura 1) a proiectului Magazin a cărui descriere a problemei este dată în capitolul 4 și programul complet.

```
public class SpecificatieProdus implements Comparable<SpecificatieProdus>{
private String denumire;
private double pretUnitar;
public SpecificatieProdus(String denumire, double pret){
  this.denumire=denumire;
 this.pretUnitar=pret;
public String getDenumire() {
 return denumire;
public double getPret() {
 return pretUnitar;
public int compareTo(SpecificatieProdus o){
 if (o==null) return -1000;
 return denumire.compareTo(o.getDenumire());
public String toString() {
 return denumire+" "+pretUnitar;
public class Articol{
private SpecificatieProdus produs;
private int cantitate;
public Articol(String d, double p, int c) {
 produs=new SpecificatieProdus(d,p);
 cantitate=c;
public Articol(SpecificatieProdus p, int c) {
 produs=p;
 cantitate=c;
public SpecificatieProdus getProdus() {
 return produs;
public int getCantitate() {
 return cantitate;
public double calculeazaCost() {
 return produs.getPret()*cantitate;
 }
}
public interface Client{
void alegeArticol(String den, double pret, int c);
import java.util.*;
public class Vanzare extends ArrayList<Articol>{
private Client c;
public static int tva=20;
private double total;
public Vanzare(Client c) {
  this.c=c;
```

```
public Client getClient() {
 return c;
public void addArticol(String d, double p, int cant) {
 super.add(new Articol(d,p,cant));
public double calculeazaTotal() {
 ListIterator<Articol> li=listIterator();
 Articol a:
 while(li.hasNext()) {
  a=li.next();
  total+=a.calculeazaCost();
  Calendar cl=Calendar.getInstance();
  if(cl.get(Calendar.DAY OF WEEK)>=2&&cl.get(Calendar.DAY OF WEEK)<=6)</pre>
  total-=5*total/100.0;
 return total+calculeazaTVA();
public ArrayList<Articol> getArticole() {
 return this;
public double calculeazaTVA() {
 return total*tva/100.0;
}
import java.io.*;
public class Persoana implements Client, Serializable{
private String nume, prenume, adresa;
private Vanzare v;
public Persoana(String n, String p) {
 this(n,p,"");
public Persoana(String n, String p, String a) {
 nume=n;
 prenume=p;
 adresa=a;
public String getNume() {
 return nume;
public String getPrenume(){
 return prenume;
public String getAdresa() {
 return adresa;
public void alegeArticol(String den, double p, int c){
 if (v==null) v=new Vanzare(this);
 v.addArticol(den, p, c);
}
public class Magazin{
private Persoana proprietar;
private int oraD, oraI;
public Magazin(Persoana p) {
 proprietar=p;
 oraD=10;
 oraI=18;
 }
```

```
public void setOraD(int ora) {
 oraD=ora;
public void setOraI(int ora) {
 oraI=ora;
public int getOraD(){
 return oraD;
public int getOraI(){
 return oraI;
public String getProprietar() {
 return proprietar.getNume()+" "+ proprietar.getPrenume();
import java.util.*;
import java.text.*;
public class Factura{
private static int id=1;
private int numar;
private Calendar data;
private Vanzare v;
private Client c;
private ArrayList<Articol> articole;
public Factura(Vanzare v) {
 numar=id++;
 data=Calendar.getInstance();
 this.v=v;
 c=v.getClient();
 articole=v.getArticole();
public String toString(){
 String sir="Factura: "+ numar+"\r\n";
 sir+="Data emiterii: "+
DateFormat.getDateInstance(DateFormat.LONG).format(data.getTime())+"\r\n";
 sir+="-----
      \r\n\r\n";
 sir+="Cumparator: "+((Persoana)c).getNume()+" "+ ((Persoana)c).getPrenume() +
      "\r\n";
 sir+="Adresa: "+((Persoana)c).getAdresa()+"\r\n";
 sir+="-----
      \r\n\r\n";
 sir+=String.format("%-30s","Denumire")+ String.format("%-15s", "Pret unitar")+
      String.format("%-20s", "Cantitate") + String.format("%-
20s", "Pret/articol")+
      "\r\n";
 Iterator<Articol> it=articole.iterator();
 Articol el;
 double t=v.calculeazaTotal();
 while(it.hasNext()){
  el=it.next();
  sir+=String.format("%-30s",el.getProdus().getDenumire())+
       String.format("%-15.2f",el.getProdus().getPret())+
       String.format("%-20d",el.getCantitate())+
       String.format("%-20.2f",el.calculeazaCost())+"\r\n";
```

```
\r\n\r.";
  sir+="TOTAL\t\t"+String.format("%-20.2f",t)+" lei \r\n";
  sir+="Din care TVA 20%\t"+String.format("%-20.2f",v.calculeazaTVA())+
       " lei \r\n";
  sir+="\r\nToTAL GENERAL\t"+String.format("%-20.2f",t)+" lei \r\n";
  return sir;
 public int getNumar(){
 return numar;
import java.util.*;
import java.io.*;
public class ListaFacturi{
private Properties tabel;
public ListaFacturi() {
 tabel=new Properties();
public void adaugaFactura(Factura f) {
 tabel.put(String.valueOf(f.getNumar()),f.toString()+"|");
public void descarca() {
 try{
  FileOutputStream out=new FileOutputStream("Arhiva.dat", true);
  tabel.store(out,"|");
  out.close();
  }catch (IOException io){}
}
public interface OperatiiObiecte{
public void scrieObiect(Object o);
public Object citesteObiect(String cheie);
import java.io.*;
import java.util.*;
public class OperatiiProduse implements OperatiiObiecte{
private PrintWriter pw;
private BufferedReader br;
public void scrieObiect(Object o) {
  if (!(o instanceof SpecificatieProdus)) {
  System.out.println("instanta invalida");
  return;
  else {
  try{
    if (pw==null) pw=new PrintWriter(new FileWriter("produse.txt"));
    SpecificatieProdus p=(SpecificatieProdus)o;
    pw.println(p.getDenumire()+" "+p.getPret());
   pw.flush();
   }catch(IOException io){io.printStackTrace();}
  }
 }
```

```
public Object citesteObiect(String cheie) {
  SpecificatieProdus sp=null;
  try{
   if (br==null) br=new BufferedReader(new FileReader("produse.txt"));
   StringTokenizer st;
   String linie;
   while((linie=br.readLine())!=null){
    st=new StringTokenizer(linie, " ");
   if(st.nextToken().equals(cheie)) {
              SpecificatieProdus(cheie, Double.parseDouble(st.nextToken()));
    sp=new
    break;
    }
  }catch(IOException io){io.printStackTrace();}
 return sp;
public void inchide() {
 pw.close();
}
import java.io.*;
import java.util.*;
public class OperatiiClient implements OperatiiObiecte{
private ObjectOutputStream oos;
private ObjectInputStream ois;
private String[] nume;
public OperatiiClient() {
 File f=new File(".");
 nume=f.list(new Filtru());
public void scrieObiect(Object o) {
 if (!(o instanceof Persoana)) {
  System.out.println("instanta invalida");
  return;
  else {
  try{
    oos=new ObjectOutputStream(
        new FileOutputStream("persoana"+((Persoana)o).hashCode()+".txt", true));
   oos.writeObject(o);
   }catch(IOException io){io.printStackTrace();}
    catch(Exception e) { }
  }
 }
 public Object citesteObiect(String cheie) {
  if (nume.length==0) return null;
  Persoana c;
  trv{
   for (int i=0; i<nume.length;i++) {</pre>
   ois=new ObjectInputStream(new FileInputStream(nume[i]));
   c=(Persoana)ois.readObject();
   if (cheie.equals(c.getNume()+" "+c.getPrenume()+" "+c.getAdresa()))
    return c;
   }
```

```
}catch(IOException io){io.printStackTrace();}
   catch(ClassNotFoundException io){io.printStackTrace();}
  return null;
public void inchide() {
  try{
  if (oos!=null) oos.close();
  }catch(IOException io){io.printStackTrace();}
}
import java.io.*;
public class Filtru implements FilenameFilter{
public boolean accept(File f, String nume) {
  if(nume.startsWith("persoana") && nume.endsWith(".txt")) return true;
 return false;
}
import java.util.*;
public class ListaClienti{
private HashMap hm;
private OperatiiObiecte oo;
public ListaClienti() {
 hm=new HashMap();
 oo=new OperatiiClient();
public void adaugaClient(Persoana c) {
 if (!hm.containsValue(c))
  hm.put(c.getNume()+" "+c.getPrenume()+" "+c.getAdresa(), c);
public Persoana getClient(String cheie) {
  Persoana c=null;
 if (hm.containsKey(cheie)) c= (Persoana) hm.get(cheie);
 else c=(Persoana)oo.citesteObiect(cheie);
 return c;
 public void descarca() {
  Collection s=hm.values();
  Iterator i=s.iterator();
  while(i.hasNext()) oo.scrieObiect(i.next());
  ((OperatiiClient)oo).inchide();
 hm.clear();
 }
}
import java.util.*;
import java.io.*;
public class Catalog extends TreeSet<SpecificatieProdus>{
private static Catalog c;
private OperatiiProduse osp;
private BufferedReader br;
private int dim=0;
private Catalog(){}
public static Catalog getInstanta(){
 if(c==null) c=new Catalog();
 return c;
```

```
public boolean add(SpecificatieProdus sp) {
 return super.add(sp);
 public SpecificatieProdus getProdus(String nume) {
  Iterator<SpecificatieProdus> it=iterator();
  SpecificatieProdus sp=null;
  while(it.hasNext()){
  sp=it.next();
  if(sp.getDenumire().equals(nume)) return sp;
  osp=new OperatiiProduse();
  sp=(SpecificatieProdus)osp.citesteObiect(nume);
  if(sp!=null) add(sp);
  return sp;
public String[] incarca(){
  String[] rez=null;
  br=new BufferedReader(new FileReader("produse.txt"));
   dim=0;
   while (br.readLine()!=null) dim++;
  br.close();
  rez=new String[dim];
   osp=new OperatiiProduse();
   SpecificatieProdus sp=null;
   int i=0;
   br=new BufferedReader(new FileReader("produse.txt"));
   String line;
   while((line=br.readLine())!=null) {
   rez[i]=line.substring(0, line.indexOf(" "));
    sp=(SpecificatieProdus)osp.citesteObiect(rez[i]);
    add(sp);
   i++;
  br.close();
  }catch(IOException io){io.printStackTrace();}
  return rez;
public void descarca() {
  osp=new OperatiiProduse();
  Iterator<SpecificatieProdus> it=iterator();
 while(it.hasNext()) osp.scrieObiect(it.next());
 osp.inchide();
 }
public int getDimensiune(){
 return Math.max(dim, size());
}
import java.awt.*;
import java.awt.event.*;
import javax.swing.*;
public class ClientPanel extends JPanel implements ActionListener{
private JLabel numeL, prenumeL, adresaL;
private JTextField numeT, prenumeT, adresaT;
private JButton submit;
private GridBagLayout qb;
private GridBagConstraints gbc;
```

```
private ListaClienti lista;
private Persoana c;
private Vanzare vanzare;
private ComandaFrame f;
public ClientPanel(ComandaFrame f, ListaClienti lista) {
 super();
 this.f=f;
 this.lista=lista;
 gb=new GridBagLayout();
 gbc=new GridBagConstraints();
 gbc.fill=GridBagConstraints.HORIZONTAL;
 setLayout (qb);
 setPreferredSize(new Dimension(400,100));
 gbc.anchor=GridBagConstraints.EAST;
 numeL=new JLabel("Nume");
 addComponent(numeL, 0, 0, 1, 1);
 numeT=new JTextField(10);
 numeT.addActionListener(this);
 addComponent(numeT, 0, 1, 1, 1);
 prenumeL=new JLabel("Prenume");
 numeT.addActionListener(this);
 addComponent(prenumeL, 1, 0, 1, 1);
 prenumeT=new JTextField(10);
 prenumeT.addActionListener(this);
 addComponent(prenumeT, 1, 1, 1, 1);
 adresaL=new JLabel("Adresa");
 addComponent(adresaL, 2, 0, 1, 1);
 adresaT=new JTextField(20);
 addComponent(adresaT, 2, 1, 1, 2);
 submit=new JButton("Submit");
 submit.addActionListener(this);
 addComponent(submit,1,2,1,1);
public void addComponent (Component c, int linie, int coloana, int lat, int
                         inaltime) {
 gbc.gridx=coloana;
 gbc.gridy=linie;
 gbc.gridwidth=lat;
 gbc.gridheight=inaltime;
 gb.setConstraints(c, gbc);
 add(c);
public Vanzare getVanzare() {
return vanzare;
public void actionPerformed(ActionEvent e) {
 if(e.getSource() ==numeT) {
 prenumeT.requestFocus();
 if(e.getSource() == prenumeT) {
 adresaT.requestFocus();
 if (e.getSource() == submit) {
  c=lista.getClient(numeT.getText().trim()+" "+prenumeT.getText().trim()+
    " "+adresaT.getText().trim());
```

```
if (c==null) {
    c=new Persoana(numeT.getText().trim(),prenumeT.getText().trim(),
                   adresaT.getText().trim());
    lista.adaugaClient(c);
    lista.descarca();
    JOptionPane.showMessageDialog(null, "A fost inregistrat un client nou!",
                                 "Information",
JOptionPane.INFORMATION MESSAGE);
  }
  vanzare=new Vanzare(c);
  f.add.setEnabled(true);f.add.repaint();
 public void curata() {
 numeT.setText("");
 prenumeT.setText("");
 adresaT.setText("");
 vanzare=null;
}
import java.awt.*;
import java.awt.event.*;
import javax.swing.*;
public class CatalogPanel extends JPanel implements ItemListener{
private JComboBox listaP;
private int indexProdus;
public CatalogPanel(Catalog lista) {
 super();
 String[] elemente=lista.incarca();
 listaP=new JComboBox(elemente);
 listaP.addItemListener(this);
 public void itemStateChanged(ItemEvent e) {
 indexProdus=listaP.getSelectedIndex();
public int getIndexProdus() {
 return indexProdus;
public JComboBox getComboBox() {
 return listaP;
import javax.swing.*;
import javax.swing.border.*;
import java.awt.*;
import java.awt.event.*;
public class TabelPanel extends JPanel{
private GridBagLayout qb;
private GridBagConstraints gbc;
private JTable tabel;
private Catalog c;
public TabelPanel(Catalog c) {
 this.c=c;
 gb=new GridBagLayout();
  gbc=new GridBagConstraints();
  gbc.fill=GridBagConstraints.HORIZONTAL;
```

```
gbc.anchor=GridBagConstraints.NORTH;
  setLayout (gb);
  setSize(new Dimension(425,100));
  tabel=new JTable(c.getDimensiune()+1,4);
  tabel.setValueAt(new String("Numar"),0,0);
  tabel.setValueAt(new String("Denumire"),0,1);
  tabel.setValueAt(new String("Cantitate"),0,2);
  tabel.setValueAt(new String("Pret unitar"),0,3);
  addComponent(tabel, 0, 0, 4, c.getDimensiune()+1);
 public void addComponent (Component c, int linie, int coloana, int lat,
                           int inaltime) {
  gbc.gridx=coloana;
  gbc.gridy=linie;
  gbc.gridwidth=lat;
  gbc.gridheight=inaltime;
  gb.setConstraints(c,gbc);
 add(c);
public JTable getTabel(){
 return tabel;
public void curata() {
 for (int i=1; i<=c.getDimensiune(); i++)</pre>
  for (int j=0; j<=3; j++)
    tabel.setValueAt("",i,j);
}
import java.awt.*;
import javax.swing.*;
public class DateMagazin extends JFrame{
public DateMagazin() {
  super("Date despre magazinul Tomis!");
  JPanel p=new JPanel();
  Magazin m=new Magazin(new Persoana("Ionescu", "Pop"));
  JLabel ta=new JLabel("Proprietar: "+m.getProprietar());
  JLabel tal=new JLabel("Orar: "+m.getOraD()+":00 - "+m.getOraI()+":00");
  p.setLayout(new GridLayout(2,1, 10,0));
  p.add(ta);
  p.add(ta1);
 add(p);
 }
}
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
public class StocFrame extends JFrame{
private JButton adauga, cancel;
private JTextField tf1, tf2;
private ControllerStocFrame c;
private Catalog cat;
public StocFrame() {
 super("Administrare stoc");
 JPanel p=new JPanel();
  p.setLayout(new GridLayout(3, 2, 10, 10));
  p.add(new Label("Nume produs"));
```

```
tf1=new JTextField(10);
 p.add(tf1);
 p.add(new Label("Pret unitar"));
 tf2=new JTextField(10);
 p.add(tf2);
 c=new ControllerStocFrame();
 adauga=new JButton("Adauga la stoc");
 adauga.addActionListener(c);
 p.add(adauga);
 cancel=new JButton("Cancel");
 cancel.addActionListener(c);
 p.add(cancel);
 add(p);
 cat=Catalog.getInstanta();
 addWindowListener(new WindowAdapter() {
  public void windowClosing(WindowEvent e) {
   cat.descarca();
   dispose();
  }
  });
 class ControllerStocFrame implements ActionListener{
 public void actionPerformed(ActionEvent e) {
  String et=e.getActionCommand();
  if (et.equals("Adauga la stoc")) {
   cat.add(new SpecificatieProdus(tf1.getText(),
                                    Double.parseDouble(tf2.getText()));
   tf1.setText(null);
   tf2.setText(null);
  }
  else {
   tf1.setText(null);
   tf2.setText(null);
  }
  }
 }
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
import java.io.*;
import java.awt.print.*;
public class FacturaFrame extends JFrame{
private JButton print, cancel,printF,arhivare;
private JTextArea arie;
private JPanel p;
private ControllerFacturaFrame c;
private Factura factura;
private ListaFacturi facturi;
private GridBagLayout gb;
private GridBagConstraints gbc;
public FacturaFrame(Factura f) {
 super("Factura");
 factura=f;
 gb=new GridBagLayout();
 gbc=new GridBagConstraints();
 gbc.fill=GridBagConstraints.HORIZONTAL;
```

```
gbc.anchor=GridBagConstraints.NORTH;
p=new Panel();
p.setLayout(gb);
arie=new JTextArea(factura.toString(),20, 50);
arie.setEditable(false);
addComponent(arie, 0, 0, 2, 5);
c=new ControllerFacturaFrame();
print=new Button("Print");
addComponent(print, 0, 6, 1, 1);
print.addActionListener(c);
printF=new Button("PrintToFile");
addComponent(printF,1,6,1,1);
printF.addActionListener(c);
arhivare=new Button("Arhivare");
addComponent(arhivare, 2, 6, 1, 1);
arhivare.addActionListener(c);
cancel=new Button("Cancel");
addComponent (cancel, 3, 6, 1, 1);
cancel.addActionListener(c);
add(p);
facturi=new ListaFacturi();
addWindowListener(new WindowAdapter() {
public void windowClosing(WindowEvent e) {
 facturi.descarca();
 dispose();
});
void addComponent(Component c, int linie,int col, int lat, int inal){
gbc.gridx=col;
gbc.gridy=linie;
gbc.gridwidth=lat;
qbc.gridheight=inal;
gb.setConstraints(c,gbc);
p.add(c);
class ControllerFacturaFrame implements ActionListener{
private PrintWriter out;
public void actionPerformed(ActionEvent e) {
  if (e.getSource() == print) {
   PrinterJob imprimanta=PrinterJob.getPrinterJob();
   Book bk=new Book();
   bk.append(new PanouContinut(),imprimanta.defaultPage());
   imprimanta.setPageable(bk);
   if (imprimanta.printDialog()) {
   trv{
     imprimanta.print();
    }catch (PrinterException pe){
      arie.append("Imprimanta nu exista");
      arie.repaint();
     catch(ArrayIndexOutOfBoundsException ae){
      System.out.println("Ce se printeaza???");
   }
  }
```

```
else if (e.getSource() == printF) {
    try{
    out=new PrintWriter(new FileOutputStream("factura.dat"));
     out.write(factura.toString());
     out.flush();
    out.close();
    }catch(FileNotFoundException fe){}
     catch(IOException ioe){}
   else if (e.getSource() == arhivare) {
   facturi.adaugaFactura(factura);
   else if (e.getSource() == cancel) setVisible(false);
  }
class PanouContinut extends JPanel implements Printable{
private BufferedReader br;
private String sir="";
public int print(Graphics g, PageFormat pf,int pageIndex)
                                                        throws PrinterException{
  g.setColor(Color.black);
  try{
   StringReader continut=new StringReader(arie.getText());
  br=new BufferedReader(continut);
   int i=0;
   while((sir=br.readLine())!=null) {
   if (sir.length()==0) sir=" ";
   g.drawString(sir, 100, 100+i); i+=20;
  }
  }catch(IOException io){}
  catch (IllegalArgumentException ie) { }
 return Printable.PAGE EXISTS;
 }
}
import javax.swing.*;
import java.awt.event.*;
import java.awt.*;
public class ComandaFrame extends JFrame implements ActionListener{
private JPanel panel;
private JLabel produsL, cantitateL;
private JComboBox listaP;
private JTextField cantitateT;
JButton add, execute;
private Articol articol;
private Factura factura;
private Client c;
private GridBagLayout gb;
private GridBagConstraints gbc;
private TabelPanel panelTabel;
private JTable tabel;
private ClientPanel cp;
private int numar=0;
private Catalog lista;
private Vanzare vanzare;
public ComandaFrame(Catalog cat, ListaClienti lc){
```

```
super("Comandati produse din acest magazin");
 lista=cat;
 cp=new ClientPanel(this, lc);
 panel=new JPanel();
 gb=new GridBagLayout();
 panel.setLayout(gb);
 gbc=new GridBagConstraints();
 gbc.fill=GridBagConstraints.BOTH;
 gbc.anchor=GridBagConstraints.NORTH;
 produsL=new JLabel("Produs");
 addComponent(produsL, 0, 0, 1, 1);
 cantitateL=new JLabel("Cantitate");
 addComponent(cantitateL, 0, 1, 1, 1);
 listaP=new CatalogPanel(cat).getComboBox();
 addComponent(listaP,1,0,1,1);
 cantitateT=new JTextField(10);
 addComponent(cantitateT,1,1,1,1);
 add=new JButton("Adauga");
 add.addActionListener(this);
 if (c==null) add.setEnabled(false);
 addComponent(add,1,2,1,1);
 execute=new JButton("Executa");
 execute.addActionListener(this);
 execute.setEnabled(false);
 addComponent(execute, 1, 3, 1, 1);
 add(cp, BorderLayout.NORTH);
 add(panel);
 panelTabel=new TabelPanel(cat);
 tabel=panelTabel.getTabel();
 add(panelTabel, BorderLayout.SOUTH);
 setSize(450,430);
 this.setResizable(false);
 setLocation(250,150);
 addWindowListener(new WindowAdapter() {
 public void windowClosing(WindowEvent e) {
   dispose();
 });
private void addComponent(Component c, int linie,int col, int lat, int inal){
 gbc.gridx=col;
 gbc.gridy=linie;
 gbc.gridwidth=lat;
 gbc.gridheight=inal;
 gb.setConstraints(c,gbc);
 panel.add(c);
public void actionPerformed(ActionEvent e) {
 if (e.getSource() == add) {
  vanzare=cp.getVanzare();
  if(vanzare!=null){
   try{
    Integer.parseInt(cantitateT.getText());
    execute.setEnabled(true);execute.repaint();
    numar++;
    SpecificatieProdus p=lista.getProdus((String)listaP.getSelectedItem());
    vanzare.addArticol(p.getDenumire(), p.getPret(),
                        Integer.parseInt(cantitateT.getText()));
```

```
tabel.setValueAt(""+numar, numar, 0);
     tabel.setValueAt(p.getDenumire(), numar, 1);
     tabel.setValueAt(cantitateT.getText(), numar, 2);
     tabel.setValueAt(String.valueOf(p.getPret()), numar, 3);
    panelTabel.repaint();
    cantitateT.setText("");
    catch (NumberFormatException nf) { JOptionPane.showMessageDialog(this,
         "Eroare!\n Trebuie sa introduceti un numar pentru cantitate",
        "Reminder", JOptionPane.WARNING MESSAGE);
         cantitateT.setText(""); numar--;}
  else {JOptionPane.showMessageDialog(null, "Mai intai clientul trebuie sa fie
         inregistrat!", "Reminder", JOptionPane.WARNING MESSAGE);
   else if (e.getSource() == execute) {
   factura=new Factura(vanzare);
   JFrame frame=new FacturaFrame(factura);
   frame.setSize(450,430);
   frame.setLocation(250,100);
   frame.setVisible(true);
   add.setEnabled(false);
   add.repaint();
   cp.curata();
   numar=0;
   panelTabel.curata();
   cantitateT.setText("");
   pack();
  }
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
public class FereastraPrincipala extends JFrame{
private JButton b1, b2, b3;
private ControllerButoane cb;
public FereastraPrincipala() {
 super("Bine ati venit la magazinul Tomis!");
 JPanel p=new JPanel();
 cb=new ControllerButoane();
 b1=new JButton("Date despre magazin");
 p.add(b1);
 b1.addActionListener(cb);
 b2=new JButton("Comandati produse");
 p.add(b2);
 b2.addActionListener(cb);
 b3=new JButton("Administrare stoc");
 p.add(b3);
 b3.addActionListener(cb);
 add(p);
private class ControllerButoane implements ActionListener{
 private JFrame f, q, h;
 public void actionPerformed(ActionEvent e) {
  if (e.getSource() ==b1) {
```

```
if (f==null) f=new DateMagazin();
    f.setSize(150,100);
   f.setVisible(true);
  if (e.getSource() ==b2) {
   g=new ComandaFrame(Catalog.getInstanta(), new ListaClienti());
   g.pack();
   g.setVisible(true);
  if (e.getSource() ==b3) {
   h=new StocFrame();
   h.pack();
   h.setVisible(true);
  }
  }
public static void main(String[] args){
 JFrame f=new FereastraPrincipala();
 f.setSize(500,75);
 f.setVisible(true);
 f.setDefaultCloseOperation(JFrame.EXIT ON CLOSE);
}
```

Programul 1. Codul aplicației proiectului Magazin

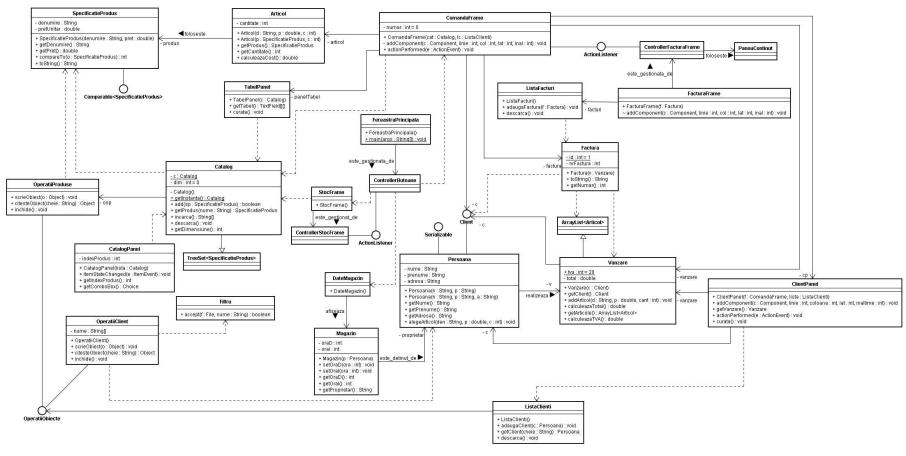


Figura 1. Diagrama de clase de proiectare a programului proiectului Magazin