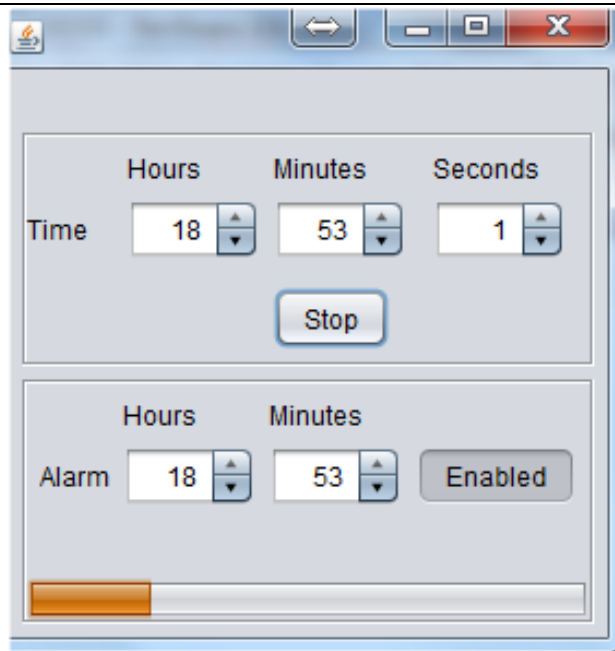


Fundamentals of Programming II Lab 11 @ Assignment

0039



| | |
|-------|---|
| CTime | <pre> abstract public class CTime { public int m,h; abstract int getMinutes(); abstract int getHours(); abstract void setHours(int h); abstract void setMinutes(int m); abstract long convert2Minutes(); } </pre> |
|-------|---|

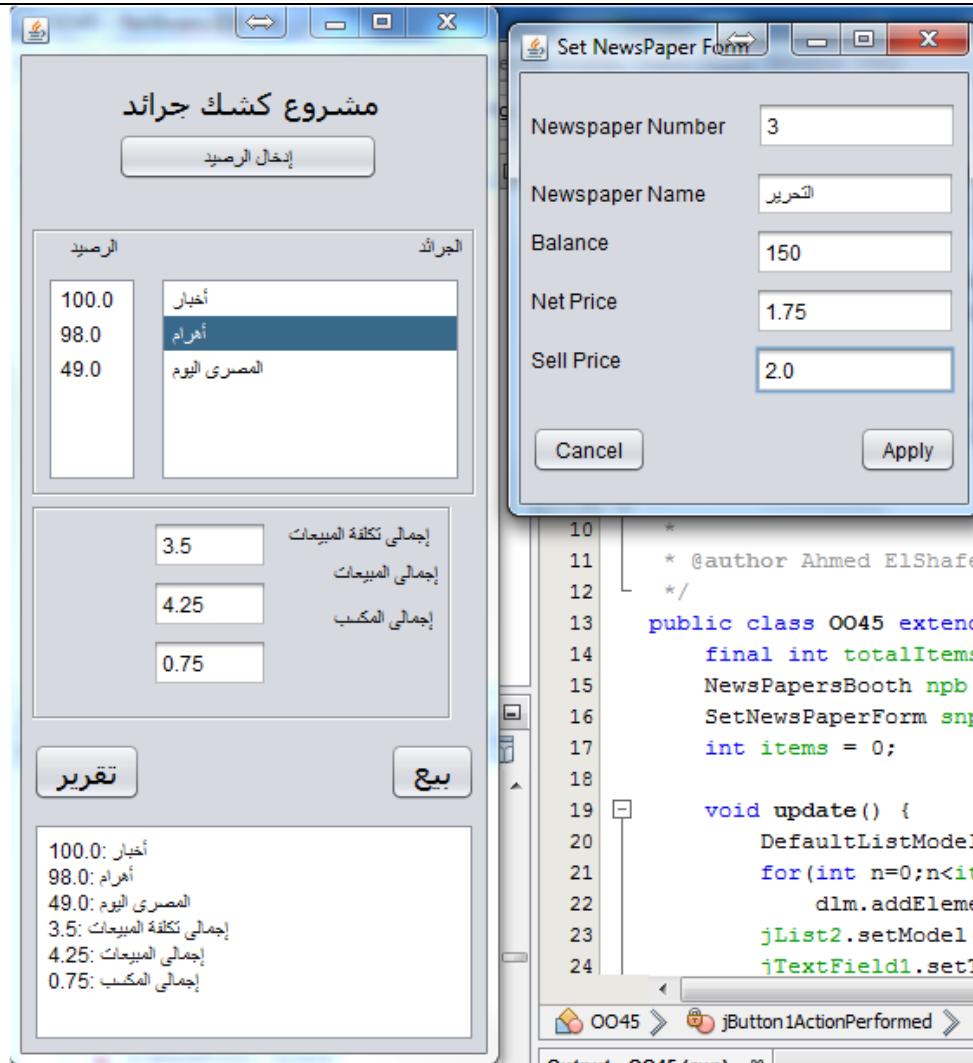
| | |
|--------|--|
| CClock | <pre> public class CClock extends CTime{ public int s; CClock() { s=0; m=0; h=0; } CClock(int h, int m, int s) { this.h=h%24; this.m=m%60; this.s=s%60; } } </pre> |
|--------|--|

```
}  
int getMinutes()  
{  
    return m;  
}  
int getHours()  
{  
    return h;  
}  
void setHours(int h)  
{  
    this.h=h;  
}  
void setMinutes(int m)  
{  
    this.m=m;  
}  
long convert2Minutes()  
{  
    long M;  
    M=(h*60*60)+(m);  
    return M;  
}  
void tick()  
{  
    s++;  
    m=m+(s/60);  
    s=s%60;  
    h=h+(m/60);  
    m=m%60;  
    h=h%24;  
}  
int getSeconds()  
{  
    return s;  
}
```

| | | |
|--------|--|--|
| | | <pre> void setSeconds(int s) { this.s=s; } Boolean compareToAlarm(CAlarm ca) { long M1,M2; M1=ca.convert2Minutes(); M2=this.convert2Minutes(); if(M1==M2) return true; else return false; } } </pre> |
| CAlarm | | <pre> public class CAlarm extends CTime{ CAlarm() { m=0; h=0; } CAlarm(int h, int m) { this.h=h%24; this.m=m%60; } int getMinutes() { return m; } int getHours() { return h; } void setHours(int h) { this.h=h; } } </pre> |

| | |
|------------------|---|
| | <pre> void setMinutes(int m) { this.m=m; } long convert2Minutes() { long M; M=(h*60*60)+(m); return M; } } </pre> |
| Form attributes | <pre> CClock cc = new CClock(); CTime ct=new CClock(); CArm alarm=new CArm(); Timer t; </pre> |
| Form constructor | <pre> t = new Timer(1000, new ActionListener() { @Override public void actionPerformed(ActionEvent e) { cc.tick(); jSpinner1.setValue(cc.getSeconds()); jSpinner2.setValue(cc.getMinutes()); jSpinner3.setValue(cc.getHours()); if((jToggleButton1.isSelected())&&(cc.compareToAlarm(alarm))) { Toolkit.getDefaultToolkit().beep(); jProgressBar1.setValue((jProgressBar1.getValue()+1)%10); } else jProgressBar1.setValue(0); } }); t.start(); </pre> |

0041



The screenshot displays a Java Swing application titled "مشروع كشك جرائد" (Newspaper Booth Project). The main window contains a table of newspapers with columns for "الرصيد" (Inventory) and "الجرائد" (Newspapers). The table lists three newspapers: "أخبار" (100.0), "أهرام" (98.0), and "المصرى اليوم" (49.0). Below the table, there are input fields for "إجمالي تكلفة المبيعات" (3.5), "إجمالي المبيعات" (4.25), and "إجمالي المكسب" (0.75). A "تقرير" (Report) button is visible. A "Set NewsPaper Form" dialog box is open, showing fields for "Newspaper Number" (3), "Newspaper Name" (التحرير), "Balance" (150), "Net Price" (1.75), and "Sell Price" (2.0). In the background, a code editor shows the implementation of the "addNewsPaper" method in the "Booth.java" class.

Updates on
"News
Papers
Booth.java"

```

int items=0;
NewsPaper[] np=new NewsPaper[100];
NewsPapersBooth(int items)
{
    for(int n=0;n<items;n++)
        np[n]=new NewsPaper();
}

void addNewsPaper(String name, int balance, double
netPrice,double sellPrice)
{
    np[items].initNewsPaper(name, balance, netPrice,
sellPrice);
    items++;
}
  
```

| | |
|-------------------------------|--|
| Child Form | |
| Child form attributes | <pre>String press=""; String id=""; String name=""; String balance=""; String netPrice=""; String sellPrice="";</pre> |
| Child form Apply | <pre>private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) { press="apply"; id=jTextField1.getText(); name=jTextField2.getText(); balance=jTextField3.getText(); netPrice=jTextField4.getText(); sellPrice=jTextField5.getText(); this.setVisible(false); }</pre> |
| Child form cancel | <pre>private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) { press="cancel"; id=""; name=""; balance=""; netPrice=""; sellPrice=""; this.setVisible(false); }</pre> |
| child "Form Window Activated" | <pre>private void formWindowActivated(java.awt.event.WindowEvent evt) { jTextField1.setText(id); jTextField2.setText(name); jTextField3.setText(balance); jTextField4.setText(netPrice); jTextField5.setText(sellPrice); }</pre> |

| Main Form | | |
|--------------|--|--|
| attributes | | <pre>final int totalItems=100; int curretnBooth=0; NewsPapersBooth npb = new NewsPapersBooth(totalItems); SetNewsPaperForm snpf = new SetNewsPaperForm(); String press="-";</pre> |
| Update () | | <pre>void update() { DefaultListModel dlm=new DefaultListModel(); for(int n=0;n<npb.items;n++) dlm.addElement(npb.getNewsPeperBalance(n)); jList2.setModel(dlm); jTextField1.setText(Double.toString(npb.getCostInHand())); jTextField2.setText(Double.toString(npb.getSellInHand())); jTextField3.setText(Double.toString(npb.getProfit())); }</pre> |
| updateAll () | | <pre>void updateAll() { DefaultListModel dlm=new DefaultListModel(); for(int n=0;n<npb.items;n++) dlm.addElement(npb.getNewsPaperName(n)); jList1.setModel(dlm); update(); }</pre> |
| إدخال الرصيد | | <pre>if (npb.items < totalItems) { snpf.press = "1"; snpf.id = Integer.toString(npb.items); snpf.name = ""; snpf.balance = ""; snpf.netPrice = ""; snpf.sellPrice = ""; snpf.setVisible(true); this.setEnabled(false); }</pre> |

| | | |
|-----------------------|--|---|
| | | <pre> else JOptionPane.showMessageDialog(this, "You Reached Maximum number of Items", "Error", JOptionPane.ERROR_MESSAGE); } </pre> |
| Form Window Activated | | <pre> if (snpf.press.equalsIgnoreCase("apply")) { this.setEnabled(true); npb.addNewsPaper(snpf.name, Integer.parseInt(snpf.balance), Double.parseDouble(snpf.netPrice), Double.parseDouble(snpf.sellPrice)); DefaultListModel dlm1 = new DefaultListModel(); DefaultListModel dlm2 = new DefaultListModel(); for (int n = 0; n < npb.items; n++) { dlm1.addElement(npb.np[n].getName()); } for (int n = 0; n < npb.items; n++) { dlm2.addElement(npb.np[n].getBalance()); } jList1.setModel(dlm1); jList2.setModel(dlm2); } else if (snpf.press.equalsIgnoreCase("cancel")) { this.setEnabled(true); } else if (snpf.press.equalsIgnoreCase("1")) { snpf.setVisible(true); } snpf.press = "0"; </pre> |
| بيع | | <pre> private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) { int[] selected=new int[totalItems]; selected=jList1.getSelectedIndices(); for(int n=0;n<selected.length;n++) </pre> |

| | | |
|--|------|--|
| | | <pre> { npb.sellNewsPeper(selected[n]); } update(); } </pre> |
| | رصيد | <pre> private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) { jTextArea1.setText(""); for(int n=0;n<items;n++) jTextArea1.append(npb.getNewsPaperName(n)+ " : " + npb.getNewsPeperBalance(n) + "\n"); jTextArea1.append(jLabel8.getText() + " : " + npb.getCostInHand() + "\n"); jTextArea1.append(jLabel9.getText() + " : " + npb.getSellInHand() + "\n"); jTextArea1.append(jLabel10.getText() + " : " + npb.getProfit() + "\n"); } </pre> |

| | |
|------------------------------|---|
| Updates on "News Paper.java" | <pre>public class NewsPaper implements Serializable { ... }</pre> |
| Updates on ".java" | <pre>public class NewspapersBooth implements Serializable { ... }</pre> |
| Save | <pre>private void jMenuItem4ActionPerformed(java.awt.event.ActionEvent evt) { if (jFileChooser1.showSaveDialog(this) == 0) { try { FileOutputStream fos = new FileOutputStream(jFileChooser1.getSelectedFile().toString()); ObjectOutputStream oos = new ObjectOutputStream(fos);</pre> |

| | | |
|--|--------------|---|
| | | <pre> oos.writeObject(npb); oos.close(); fos.close(); } catch (Exception e) { JOptionPane.showMessageDialog(this, e.getMessage(), "About", JOptionPane.ERROR_MESSAGE); } } </pre> |
| | Load | <pre> private void jMenuItem3ActionPerformed(java.awt.event.ActionEvent evt) { if (jFileChooser1.showOpenDialog(this) == 0) { try { FileInputStream fis = new FileInputStream(jFileChooser1.getSelectedFile().toString()); ObjectInputStream ois = new ObjectInputStream(fis); npb = (NewsPapersBooth) ois.readObject(); ois.close(); fis.close(); updateAll(); } catch (Exception e) { JOptionPane.showMessageDialog(this, e.getMessage(), "About", JOptionPane.ERROR_MESSAGE); } } } </pre> |
| | Update All() | <pre> void updateAll() { DefaultListModel dlm=new DefaultListModel(); for(int n=0;n<items;n++) dlm.addElement(npb.getNewsPaperName(n)); jList1.setModel(dlm); update(); } </pre> |