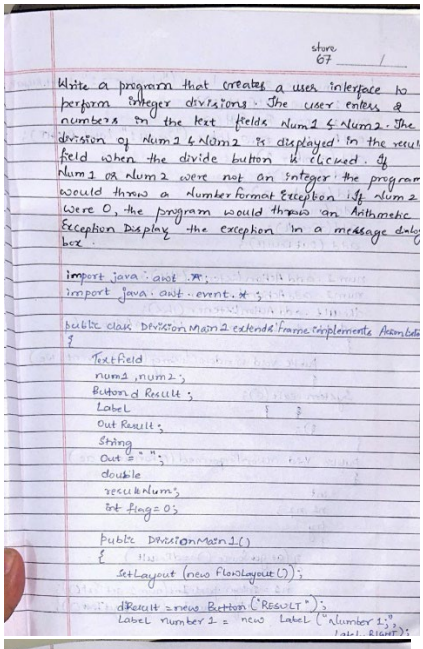
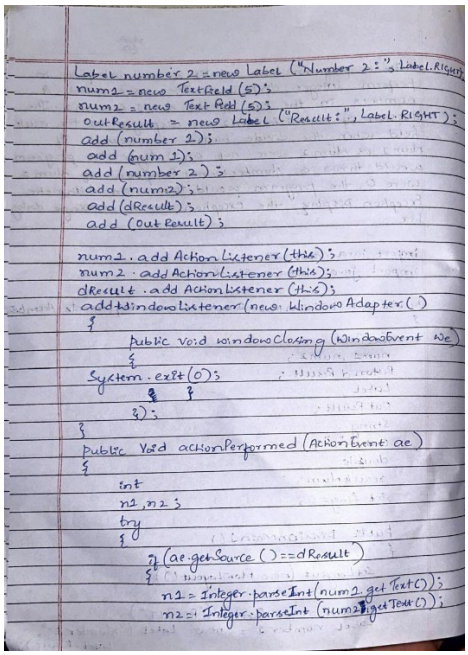
Program 9

Write a program that creates a user interface to perform integer divisions. The user enters two numbers in the text fields, Num1 and Num2. The division of Num1 and Num2 is displayed in the Result field when the Divide button is clicked. If Num1 or Num2 were not an integer, the program would throw a NumberFormatException. If Num2 were Zero, the program would throw an Arithmetic Exception Display the exception in a message dialog box.

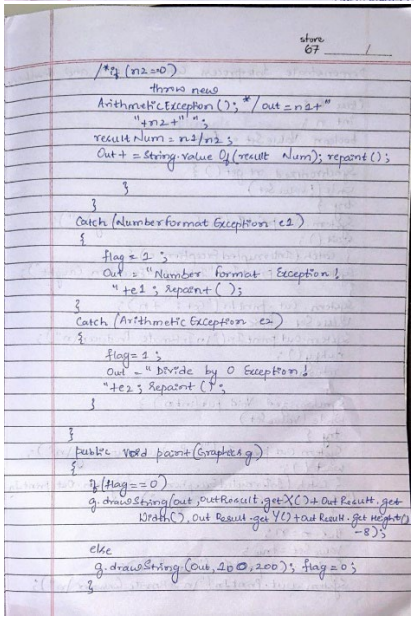
OBSERVATION:



```
store
67
Write a program that creates a user interface to
perform integer divisions. The user enters 2
numbers in the text fields Num1 & Num2. The
division of Num1 & Num2 is displayed in the resul
field when the divide button is clicked. If
Num1 or Num2 were not an integer the program
would throw a NumberFormatException if Num2
were 0, the program would throw an Arithmetic
Exception Display the exception in a message dialo
box.

import java.awt.*;
import java.awt.event.*;

public class DivisionMain2 extends Frame implements ActionLi
{
    TextField
    num1,num2;
    Button dResult;
    Label
    OutResult;
    String
    out="";
    double
    resultNum;
    int flag=0;

    Public DivisionMain2()
    {
      setLayout(new FlowLayout());
      dResult=new Button("RESULT");
      Label Number1 = new Label("Number1:",
      Label.RIGHT);
```



```
Label number2=new Label("Number 2:",Label.RIGHT
num1=new TextField(5);
num2=new TextField(5);
OutResult = new Label("Result:",Label.RIGHT);
add(number2);
add(num1);
add(number2);
add(num2);
add(dResult);
add(OutResult);

num1.addActionListener(this);
num2.addActionListener(this);
dResult.addActionListener(this);
addWindowListener(new WindowAdapter()
{
    public void windowClosing(WindowEvent we)
    {
System.exit(0);
    }
});
}
public void actionPerformed(ActionEvent ae)
{
    int
    n1,n2;
    try
    {
      if(ae.getSource()==dResult)
      {
        n1=Integer.parseInt(num1.getText());
        n2=Integer.parseInt(num2.getText());
```



```
store
67
/*if(n2==0)
    throw new
ArithmeticException();*/out=n2+"
    "+n2+" ";
result=Num=n1/n2;
Out+=String.valueOf(result Num);repaint();
    }
  }
Catch(NumberFormatException e1)
{
  flag=1;
  Out="Number format Exception!
  "+e1;repaint();
}
Catch(ArithmeticException e2)
{
    flag=1;
    Out="Divide by 0 Exception!
    "+e2;Repaint();
}
}
Public void paint(Graphics g)
{
  if(flag==0)
  g.drawString(out,OutResult.getX()+OutResult.get
      Width(),OutResult.getY()+OutResult.getHeight()
      -8);
  else
  g.drawString(Out,200,200);flag=0;
}
```

CODE:

```
import java.awt.*;  import java.awt.event.*; public class
DivisionMain1 extends Frame implements ActionListener
{
TextField num1,num2;
Button dResult;
Label outResult;
String out="";  double
resultNum;  int
flag=0;

public DivisionMain1()
{ setLayout(new
FlowLayout());

dResult = new Button("RESULT");
Label number1 = new Label("Number 1:",Label.RIGHT);
 Label number2 = new Label("Number 2:",Label.RIGHT);
 num1=new TextField(5); num2=new
TextField(5); outResult = new
Label("Result:",Label.RIGHT);

add(number1);
add(num1);
add(number2);
add(num2);  add(dResult);
add(outResult);

num1.addActionListener(this);  num2.addActionListener(this);
 dResult.addActionListener(this);
addWindowListener(new WindowAdapter()
{ public void windowClosing(WindowEvent
we)
```

```
{
System.exit(0);
}
}); } public void
actionPerformed(ActionEvent ae)
{ int n1,n2;  try { if
(ae.getSource() == dResult)
{ n1=Integer.parseInt(num1.getText());
n2=Integer.parseInt(num2.getText());

/*if(n2==0)
throw new ArithmeticException();
*/ out=n1+" "+n2+" "; resultNum=n1/n2;
out+=String.valueOf(resultNum);  repaint();
}
} catch(NumberFormatException
e1)
{ flag=1; out="Number Format
Exception! "+e1;  repaint(); }
catch(ArithmeticException e2)
{ flag=1; out="Divide by 0
Exception! "+e2;  repaint();
} } public void
paint(Graphics g)
{ if(flag==0)
g.drawString(out,outResult.getX()+outResult.getWidth(),outResult.getY()+outResult.
getHeight()-8); else g.drawString(out,100,200);  flag=0; } public static void
main(String[] args)
{
```

```
DivisionMain1 dm=new DivisionMain1();  dm.setSize(new
Dimension(800,400));  dm.setTitle("DivisionOfIntegers");
dm.setVisible(true);
}
}
```

OUTPUT: