ECET 3810 – Practice Problem Set 2

1. Briefly explain what the following pattern object describers.

   Pattern p = Pattern.compile("[_ ,\d]+"); 

2. Write a regular expression used to describe a phone number pattern with country code 1.
3. Draw the GUI created by the following application. Assume that the “ok” button has been clicked. Include as much detail as possible.

```java
import javax.swing.*; // Packages used
import java.awt.*;
import java.awt.event.*;
import java.io.*;
import java.util.Vector;

public class BasicButtons extends JFrame implements ActionListener
{
    public BasicButtons()
    {
        super( "Event Handling Example" );
        init();
    }

    public void actionPerformed( ActionEvent e )
    {
        String cmd = e.getActionCommand();
        if ( cmd.equals( "hi" ) )
            msg.setText( "hi" );
        else if ( cmd.equals( "huh" ) )
            msg.setText( "huh" );
        else if ( cmd.equals( "ok" ) )
            msg.setText( "ok" );
        else if ( cmd.equals( "bye" ) )
            System.exit( 0 );
    }

    private void init()
    {
        setLayout( new BorderLayout() );
        addButton( "hi" );
        addButton( "huh" );
        addButton( "ok" );
        addButton( "bye" );
        msg = new Label( "This is a label." );
        add("Center", msg );
    }

    private void addButton( String name )
    {
        Button b = new Button( name );
b.addActionListener( this ); //*** BasicButton object
        switch (i)
        {
            case 0 : add("South", b ); break;
        }
    }
}
```
case 1: add("North", b); break;
case 2: add("West", b); break;
case 3: add("East", b); break;
}
i++;
}

private Label msg;
private int i = 0;
private static final String hi = "Hello, world!";
private static final String huh = "What, me worry?";
private static final String ok = "I agree";
private static final String bye = "Exit";

public static void main(String[] args) {
    BasicButtons buttonWin = new BasicButtons();
    buttonWin.setSize(300, 300);
    buttonWin.setVisible(true);
}

4. Modify the source code in problem number #3 such that all of the buttons are displayed in a single column on the “East” side of the ContentPane.

5. Write the minimal number of lines of code necessary to: i) declare a new buffered-reader called “in,” which is attached to a file named “test.dat,” and ii) read from the buffer as long as input is present. Don’t use a try-catch block.