Code for Project # 6

Programming Project 11.1

```java
public class StringTooLongException extends Exception{
       public StringTooLongException(){
              super ("String too long error");
       }

}

import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;

public class StringtooLongDriver {

       public static void main(String args[]) throws IOException
       {
              int num_of_strings= 1;
              String entryfromuser;
              BufferedReader test = new BufferedReader( new
InputStreamReader(System.in));

              System.out.println("Please enter a String up to 20 characters:");

              try{
                     while(num_of_strings >0){
                            entryfromuser = test.readLine();

                            if(entryfromuser.equals("DONE")){
                                   break;
                            }
                            else if (entryfromuser.length()>20){
                                   throw new StringTooLongException();

                            }
                            else{
                                   num_of_strings++;
                            }
                     }
              }

              catch(StringTooLongException repeat_entry){
                     System.out.println("This String is too long :”
+repeat_entry);

              }

       }
}
```

Programming Project 11.2

```java
public class StringTooLongException extends Exception{
```

```java
        public StringTooLongException(){

        }

}

import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;

public class StringtooLongDriver {

        public static void main(String args[]) throws IOException
        {
                int num_of_strings= 1;
                String entryfromuser;
                BufferedReader test = new BufferedReader( new
InputStreamReader(System.in));

                System.out.println("Please enter a String up to 20 characters:");

                try{
                        while(num_of_strings >0){
                                entryfromuser = test.readLine();

                                if(entryfromuser.equals("DONE")){
                                        break;
                                }
                                else if (entryfromuser.length()>20){
                                        throw new StringTooLongException();

                                }
                                else{
                                        num_of_strings++;
                                }
                        }
                }

                catch(StringTooLongException repeat_entry){
                        System.out.println("This String is too long :" +
repeat_entry);

                        main(args);
                }

        }
}


Programming Project 11.3

import java.util.Scanner;
import java.awt.BorderLayout;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.io.*;
```

```java
import javax.swing.*;


public class DisplayFile
{
    private static JTextArea ta;
    private File file;

    @SuppressWarnings("resource")
    public  void run() throws IOException
    {
        JFrame frame = new JFrame ("Display File");
        frame.setDefaultCloseOperation (JFrame.EXIT_ON_CLOSE);

        ta = new JTextArea (20, 30);
        JFileChooser chooser = new JFileChooser();

        int status = chooser.showOpenDialog (null);

        if (status != JFileChooser.APPROVE_OPTION)
            ta.setText ("No File Chosen");
        else
        {
            File file = chooser.getSelectedFile();
            Scanner scan = new Scanner (file);

            String info = "";
            while (scan.hasNext())
                info += scan.nextLine() + "\n";

            ta.setText (info);
        }
        //Add button
        JButton save = new JButton("Save");
        save.addActionListener(new SaverListener());
        frame.getContentPane().add(save, BorderLayout.NORTH);

        frame.getContentPane().add (ta, BorderLayout.CENTER);
        frame.pack();
        frame.setVisible(true);
    }
    void save(){
            if (file == null)
                    ta.setText("Error");
            else{
                    try{
                            FileWriter fill = new FileWriter(file);
                            BufferedWriter outfile = new BufferedWriter(fill);
                            outfile.write(ta.getText());
                            outfile.close();
                            ta.setText("File Save");}
                    catch (IOException e){
                            ta.setText("Error");
```

```java
                }
            }

    }
    public static void main(String[] args) throws IOException{
            new DisplayFile().run();
        }
}
class SaverListener implements ActionListener{
        public void actionPerformed(ActionEvent e){
                new DisplayFile().save();
        }

}
```