GRAPHIC ERA HILL
UNIVERSITY

Department of Computer Application

JAVA Practical Exam

AMIT RAWAT

MCA Sec-C

SEM-2

ROLL NO : 2001024

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Que 1 = Write a java program for Client Server communication using UDP Datagram Socket Programming.

Ans = CLIENT SIDE IMPLEMENTATION

```
package Luffy;
import java.io.IOException;
import java.net.DatagramPacket;
import java.net.DatagramSocket;
import java.net.InetAddress;
import java.util.Scanner;

public class udpBaseClient_2
{
    public static void main(String args[]) throws IOException
    {
        Scanner sc = new Scanner(System.in);

        // Step 1:Create the socket object for
        // carrying the data.
        DatagramSocket ds = new DatagramSocket();

        InetAddress ip = InetAddress.getLocalHost();
        byte buf[] = null;

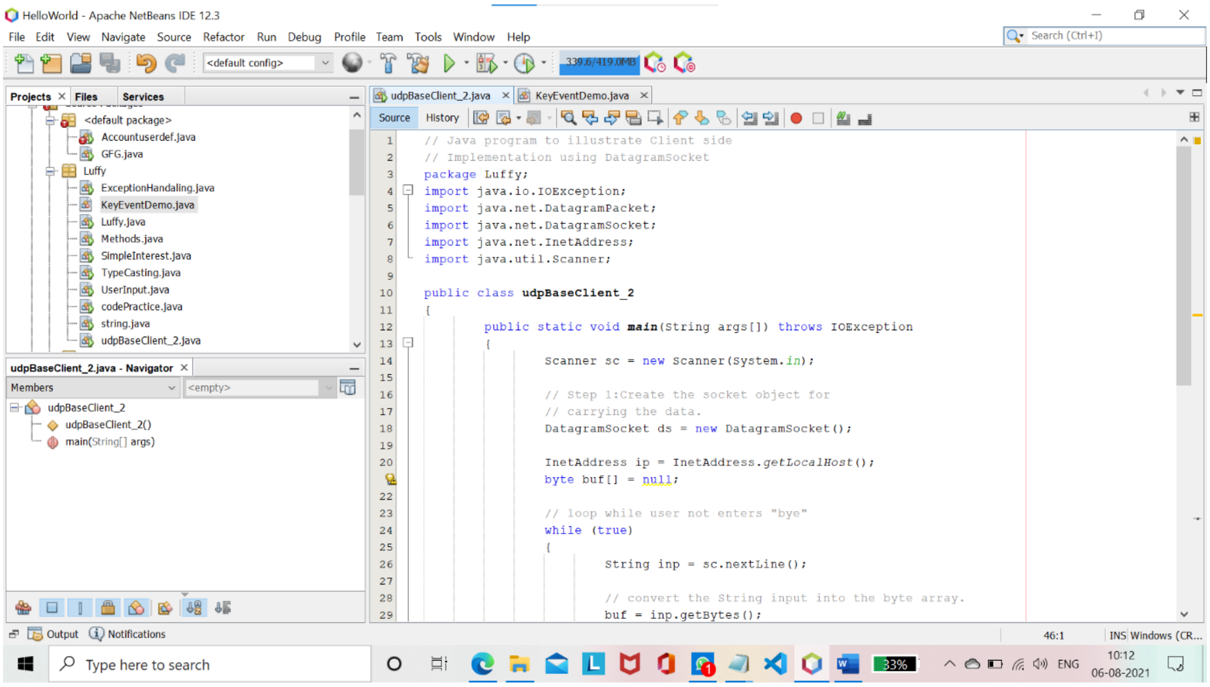
        // loop while user not enters "bye"
        while (true)
        {
            String inp = sc.nextLine();

     // convert the String input into the byte array.
            buf = inp.getBytes();

// Step 2 : Create the datagramPacket for sending
            // the data.
            DatagramPacket DpSend =
                new DatagramPacket(buf, buf.length,
ip, 1234);
```

```
        // Step 3 : invoke the send call to actually send
            // the data.
            ds.send(DpSend);

            // break the loop if user enters "bye"
            if (inp.equals("bye"))
                break;
        }
    }
}
```



```
// Java program to illustrate Client side
// Implementation using DatagramSocket
package Luffy;
import java.io.IOException;
import java.net.DatagramPacket;
import java.net.DatagramSocket;
import java.net.InetAddress;
import java.util.Scanner;

public class udpBaseClient_2
{
        public static void main(String args[]) throws IOException
        {
                Scanner sc = new Scanner(System.in);

                // Step 1:Create the socket object for
                // carrying the data.
                DatagramSocket ds = new DatagramSocket();

                InetAddress ip = InetAddress.getLocalHost();
                byte buf[] = null;

                // loop while user not enters "bye"
                while (true)
                {
                        String inp = sc.nextLine();

                        // convert the String input into the byte array.
                        buf = inp.getBytes();
```

SERVER SIDE IMPLEMENTATION

Source Code:

```
package Luffy;
import java.io.IOException;
import java.net.DatagramPacket;
import java.net.DatagramSocket;
import java.net.InetAddress;
import java.net.SocketException;

public class udpBaseServer_2
{
    public static void main(String[] args) throws IOException
    {
        // Step 1 : Create a socket to listen at port 1234
        DatagramSocket ds = new
DatagramSocket(1234);
        byte[] receive = new byte[65535];

        DatagramPacket DpReceive = null;
        while (true)
        {

    // Step 2 : create a DatgramPacket to receive the data.
            DpReceive = new DatagramPacket(receive,
receive.length);

            // Step 3 : revieve the data in byte buffer.
            ds.receive(DpReceive);

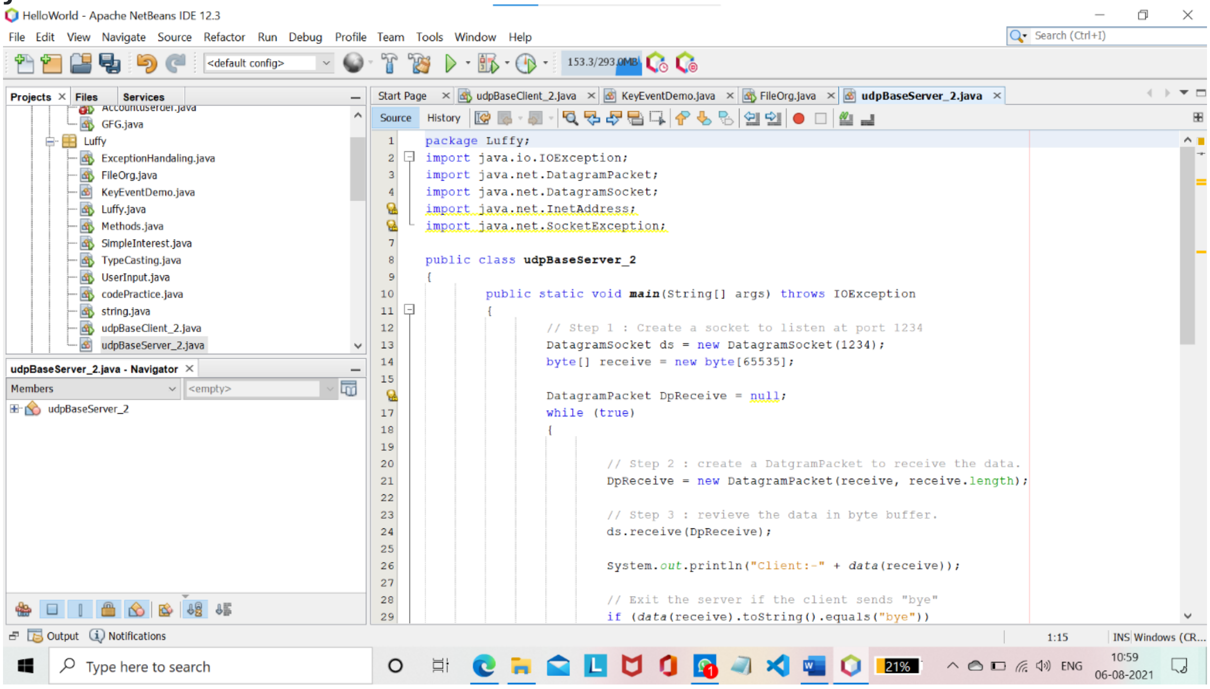
            System.out.println("Client:-" +
data(receive));

        // Exit the server if the client sends "bye"
            if (data(receive).toString().equals("bye"))
            {
        System.out.println("Client sent bye.....EXITING");
```

```
                break;
            }

            // Clear the buffer after every message.
            receive = new byte[65535];
        }
    }

    // A utility method to convert the byte array
    public static StringBuilder data(byte[] a)
    {
        if (a == null)
            return null;
        StringBuilder ret = new StringBuilder();
        int i = 0;
        while (a[i] != 0)
        {
            ret.append((char) a[i]);
            i++;
        }
        return ret;
    }
}
```



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package Luffy;
import java.io.IOException;
import java.net.DatagramPacket;
import java.net.DatagramSocket;
import java.net.InetAddress;
import java.net.SocketException;

public class udpBaseServer_2
{
        public static void main(String[] args) throws IOException
        {
                // Step 1 : Create a socket to listen at port 1234
                DatagramSocket ds = new DatagramSocket(1234);
                byte[] receive = new byte[65535];

                DatagramPacket DpReceive = null;
                while (true)
                {

                        // Step 2 : create a DatgramPacket to receive the data.
                        DpReceive = new DatagramPacket(receive, receive.length);

                        // Step 3 : revieve the data in byte buffer.
                        ds.receive(DpReceive);

                        System.out.println("Client:-" + data(receive));

                        // Exit the server if the client sends "bye"
                        if (data(receive).toString().equals("bye"))
```

Que 2 = Write a servlet program to create a login page.

Ans =

```
package Luffy;
import java.awt.*;
import java.applet.*;
import java.awt.event.*;
public class KeyEventDemo extends Applet implements
KeyListener
{
    String msg = "";

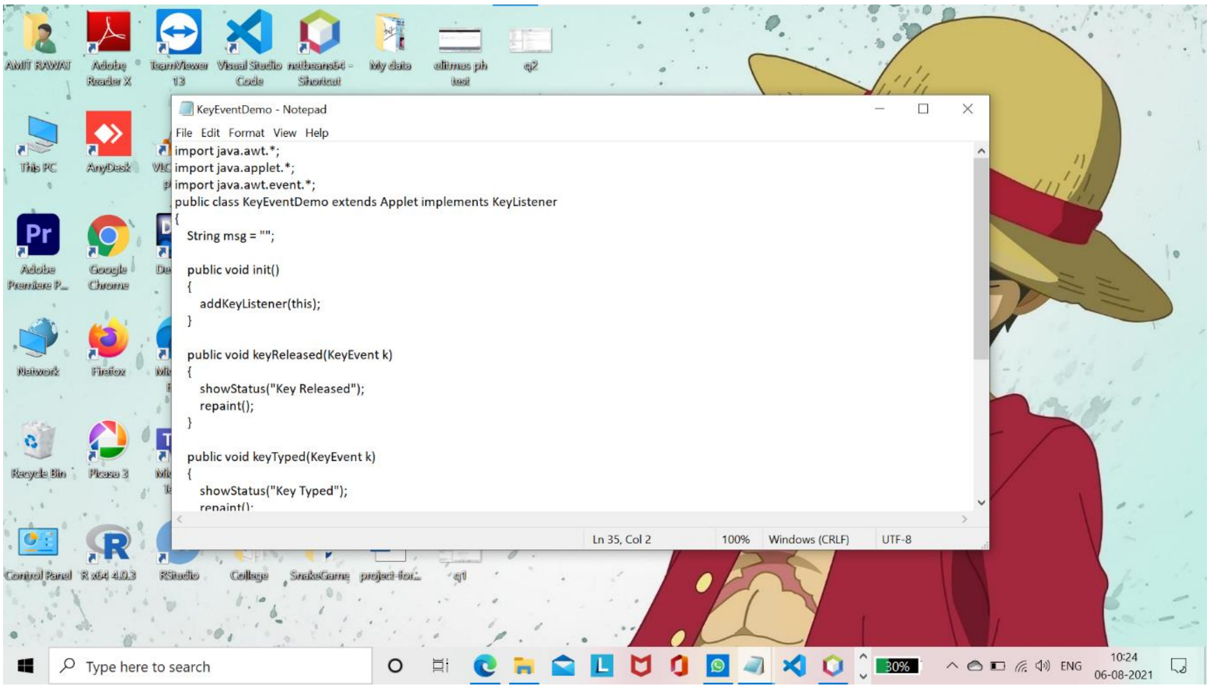
    public void init()
    {
        addKeyListener(this);
    }

    public void keyReleased(KeyEvent k)
    {
        showStatus("Key Released");
        repaint();
    }

    public void keyTyped(KeyEvent k)
    {
        showStatus("Key Typed");
        repaint();
    }

    public void keyPressed(KeyEvent k)
    {
        showStatus("Key Pressed");
        repaint();
    }

    public void paint(Graphics g)
    {
        g.drawString(msg, 10, 10);
    }
}
```

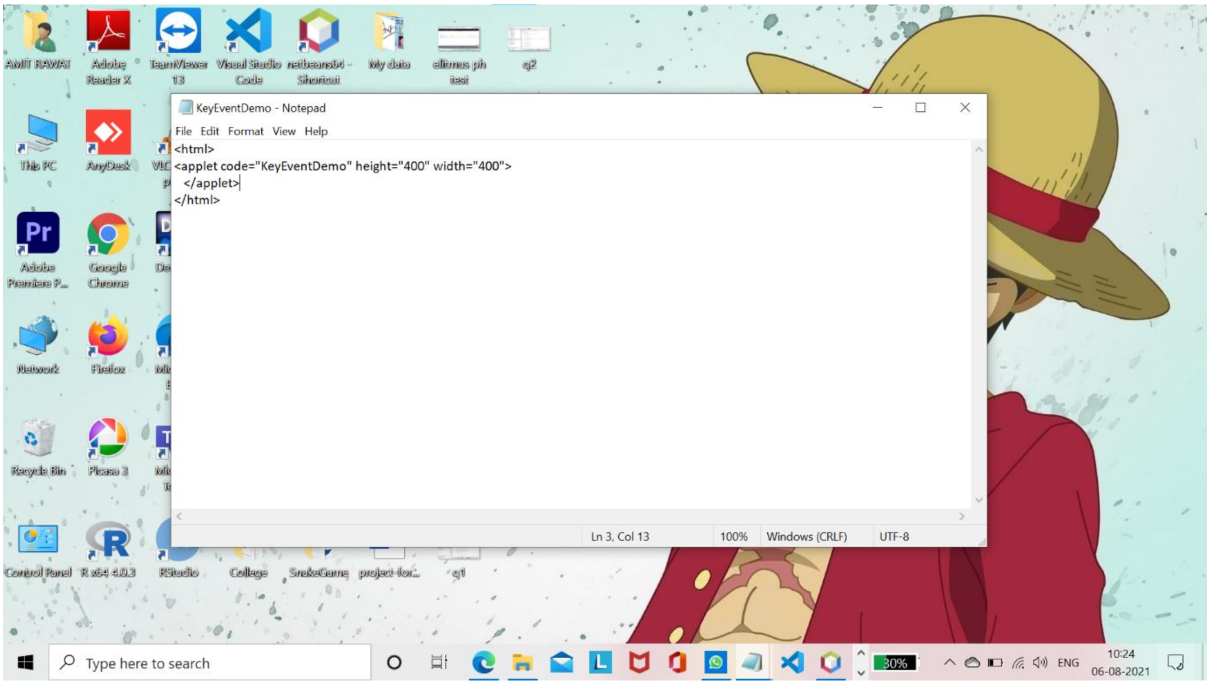


```
import java.awt.*;
import java.applet.*;
import java.awt.event.*;
public class KeyEventDemo extends Applet implements KeyListener
{
   String msg = "";

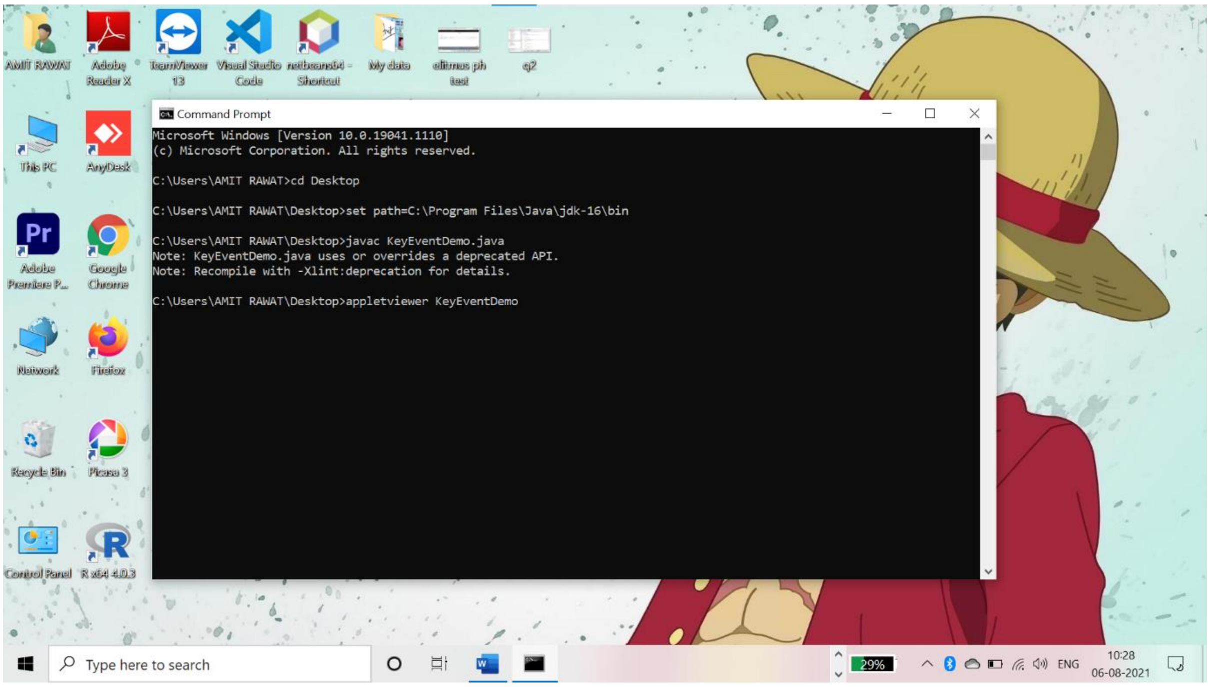
   public void init()
   {
      addKeyListener(this);
   }

   public void keyReleased(KeyEvent k)
   {
      showStatus("Key Released");
      repaint();
   }

   public void keyTyped(KeyEvent k)
   {
      showStatus("Key Typed");
      repaint()
```



```
<html>
<applet code="KeyEventDemo" height="400" width="400">
  </applet>
</html>
```



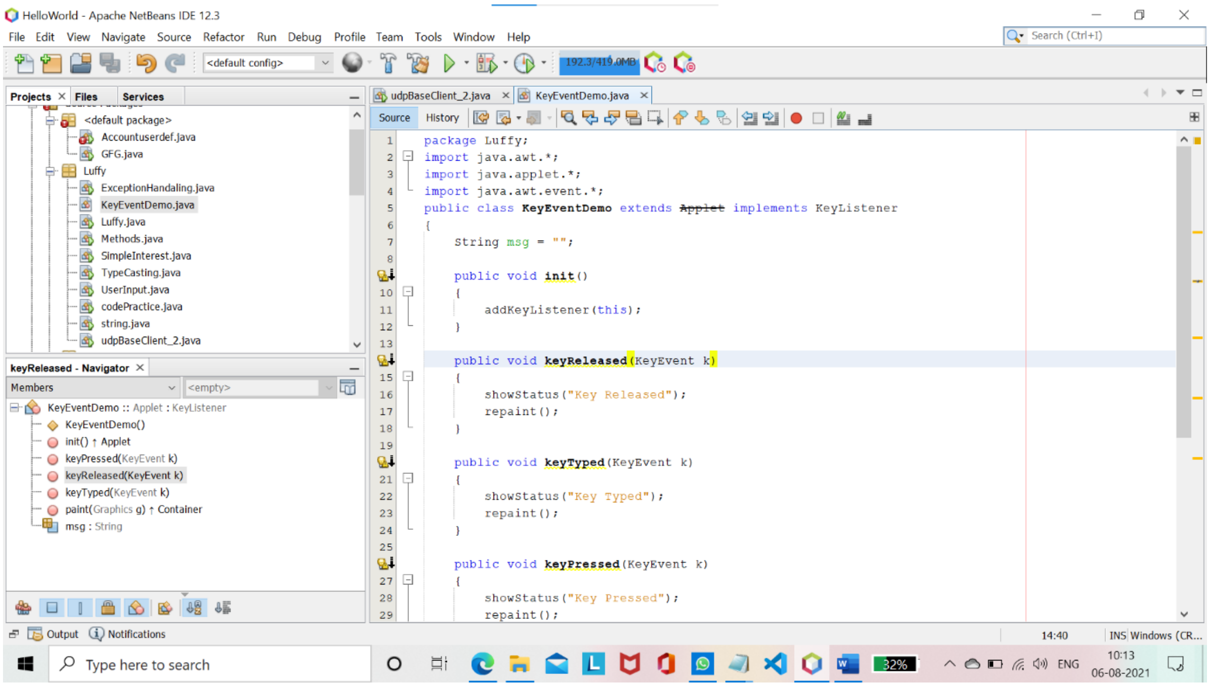
```
Microsoft Windows [Version 10.0.19041.1110]
(c) Microsoft Corporation. All rights reserved.

C:\Users\AMIT RAWAT>cd Desktop

C:\Users\AMIT RAWAT\Desktop>set path=C:\Program Files\Java\jdk-16\bin

C:\Users\AMIT RAWAT\Desktop>javac KeyEventDemo.java
Note: KeyEventDemo.java uses or overrides a deprecated API.
Note: Recompile with -Xlint:deprecation for details.

C:\Users\AMIT RAWAT\Desktop>appletviewer KeyEventDemo
```



```
package Luffy;
import java.awt.*;
import java.applet.*;
import java.awt.event.*;
public class KeyEventDemo extends Applet implements KeyListener
{
    String msg = "";

    public void init()
    {
        addKeyListener(this);
    }

    public void keyReleased(KeyEvent k)
    {
        showStatus("Key Released");
        repaint();
    }

    public void keyTyped(KeyEvent k)
    {
        showStatus("Key Typed");
        repaint();
    }

    public void keyPressed(KeyEvent k)
    {
        showStatus("Key Pressed");
        repaint();
```

Que 3 = Write a java program to create a file with your name, save it in the desktop, write some data on the file and then read and print that data into the console.

Ans =
```
package Luffy;
import java.io.*;
import java.io.IOException;
import java.util.*;

public class FileOrg {
  public static void main(String[] args) {
    try {
      File myObj = new File("filename");
      if (myObj.createNewFile())
      {
        System.out.println("File created with the name " +
myObj.getName());


        // To read the write content on the File............

        FileWriter myWriter = new FileWriter("file name");

        System.out.println("Enter Content");
        Scanner input = new Scanner(System.in);
        String str = input.nextLine();
        myWriter.write(str);
        myWriter.close();

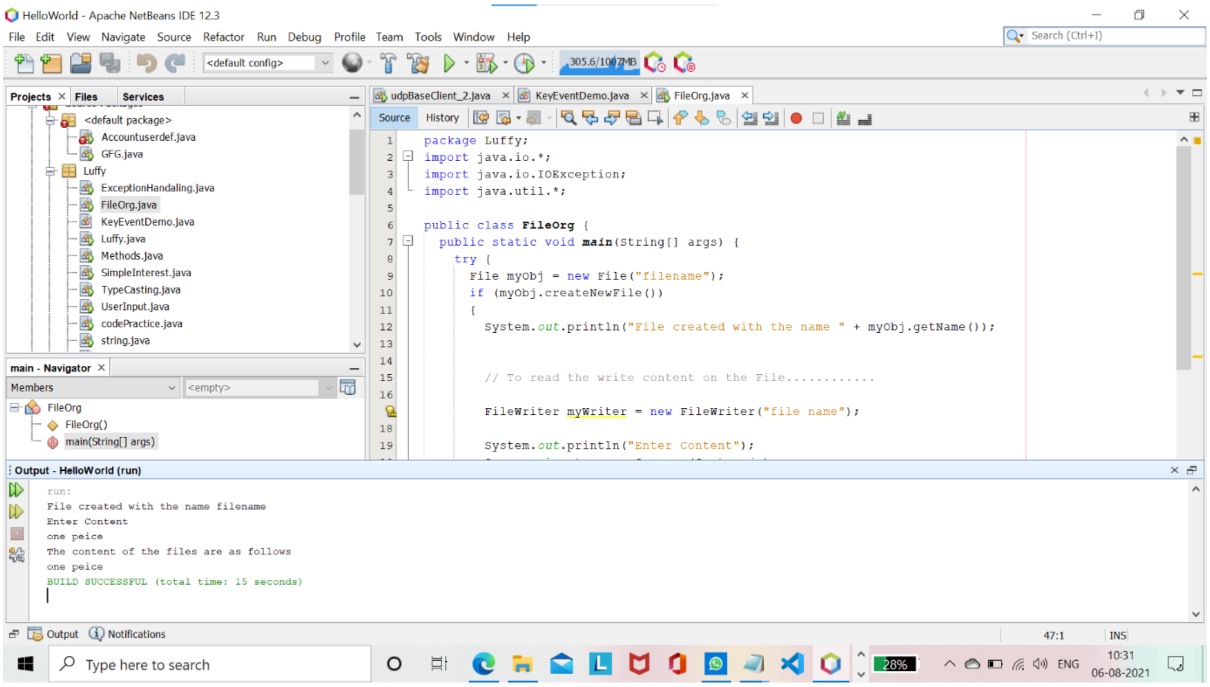
        // To show the output of the file.

        System.out.println("The content of the files are as
follows");
        String line = null;
        FileReader fileReader = new FileReader("file name");
        BufferedReader bufferedReader = new
BufferedReader(fileReader);

        while((line = bufferedReader.readLine()) != null)
        {
            System.out.println(line);
        }
        bufferedReader.close();

      }
      else {
        System.out.println("File already exists.");
      }
    }
    catch (IOException e) {
      System.out.println("An error occurred.");
      e.printStackTrace();

    }
  }
}
```



```
package Luffy;
import java.io.*;
import java.io.IOException;
import java.util.*;

public class FileOrg {
  public static void main(String[] args) {
    try {
      File myObj = new File("filename");
      if (myObj.createNewFile())
      {
        System.out.println("File created with the name " + myObj.getName());


        // To read the write content on the File............

        FileWriter myWriter = new FileWriter("file name");

        System.out.println("Enter Content");
```

```
run:
File created with the name filename
Enter Content
one peice
The content of the files are as follows
one peice
BUILD SUCCESSFUL (total time: 15 seconds)
```