21CE105 Vraj Patel

https://github.com/PatelVraj10/java_practical_file_5

1.

```
/*By 21CE105 Vraj Patel
Question : WAP to show how to create a file with different mode and
methods of File class to find
path, directory etc.
GITHUB LINK : https://github.com/PatelVraj10/java_practical_file_5 */

import java.util.*;
import java.io.*;

class P5P1
{
    public static void main(String... args)
    {

        //Creating the file
        try
        {
            File myObj=new File("Part5Practical1.txt");
            if(myObj.createNewFile())
            {
                System.out.println("File created with name
"+myObj.getName());
            }
            else
            {
                System.out.println("File already exists");
            }
        }
        catch(Exception e)
        {
            System.out.println(e.getMessage());
        }
        //Opening in writing mode
        try
        {
            FileWriter myObj=new FileWriter("Part5Practical1.txt");
            myObj.write("This is Part 5 Practical 5\nCreated by 21CE105
Vraj Patel");
```

```
            myObj.close();
        }
        catch(Exception e)
        {
            System.out.println(e.getMessage());
        }
        //Reading from the file
        try
        {
            File myObj=new File("Part5Practical1.txt");
            Scanner myReader = new Scanner(myObj);

            while(myReader.hasNextLine())
            {
                String data=myReader.nextLine();
                System.out.println(data);
            }
        }
        catch(Exception e)
        {
            System.out.println(e.getMessage());
        }

        //Getting path of File and directory
        try
        {
            File myObj=new File("Part5Practical1.txt");
            String path = myObj.getAbsolutePath();
            String directory=new File(path).getParent();
            System.out.println("Path of file : "+path);
            System.out.println("Directory : "+directory);
        }
        catch(Exception e)
        {
            System.out.println(e.getMessage());
        }


    }
}
```

2.

```
/*By 21CE105 Vraj Patel
Question : When to use Character Stream over Byte Stream? When to use Byte
Stream over Character
Stream? Give example.
Ans:Byte streams are used to perform input and output of 8-bit bytes.
    Byte streams are useful when we want to read/write binary data.
    Character stream is used to perform input and output operations of 16-
bit Unicode.
    Character streams are used to read/write characters.
GITHUB LINK : https://github.com/PatelVraj10/java_practical_file_5 */

import java.io.*;

// Main class
public class P5P2
    {
    // Main driver method
    public static void main(String[] args)
        throws IOException
    {

        // Initially assigning null as we have not read
        // anything
        FileReader sourceStream = null;

        // Try block to check for exceptions
        try {

            // Reading from file
            sourceStream = new FileReader(
                "Part5Practical2.txt");

            // Reading sourcefile and writing content to
            // target file character by character.

            int temp;

            // If there is content inside file
            // than read
```

```
            while ((temp = sourceStream.read()) != -1)
                System.out.println((char)temp);

          // Display message for successful execution of program
          System.out.print("Program successfully executed");
        }

        // finally block that executes for sure
        // where we are closing file connections
        // to avoid memory leakage
        finally {

            // Closing stream as no longer in use
            if (sourceStream != null)
                sourceStream.close();
        }
    }
}
```

3.

```java
/*By 21CE105 Vraj Patel
Question : Write a program to transfer data from one file to another file
so that if the destination
file does not exist, it is created
GITHUB LINK : https://github.com/PatelVraj10/java_practical_file_5 */

import java.io.*;
import java.util.*;

class P5P3
{

    public static void copyContent(File a, File b)
        throws Exception
    {
        FileInputStream in = new FileInputStream(a);
        FileOutputStream out = new FileOutputStream(b);

        try {

            int n;

            // read() function to read the
            // byte of data
            while ((n = in.read()) != -1) {
                // write() function to write
                // the byte of data
                out.write(n);
            }
        }
        finally {
            if (in != null) {

                // close() function to close the
                // stream
                in.close();
            }
            // close() function to close
```

```
            // the stream
            if (out != null) {
                out.close();
            }
        }
        System.out.println("File Copied");
    }

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

        // get the source file name
        System.out.println(
            "Enter the source filename from where you have to read/copy
:");
        String a = sc.nextLine();

        // source file
        File x = new File(a);

        // get the destination file name
        System.out.println(
            "Enter the destination filename where you have to write/paste
:");
        String b = sc.nextLine();

        // destination file
        File y = new File(b);

        // method called to copy the
        // contents from x to y
        copyContent(x, y);
    }
}
```

4.

```java
/*By 21CE105 Vraj Patel
Question : WAP to show use of character and byte stream.
GITHUB LINK : https://github.com/PatelVraj10/java_practical_file_5 */

import java.io.*;
class P5P4
{
    public static void main(String args[]) throws IOException
    {
        FileInputStream in = null;
        FileOutputStream out = null;

        try
        {
            in = new FileInputStream("Part5Practical4Input.txt");
            out = new FileOutputStream("Part5Practical4Output.txt");
            int c;
            while ((c = in.read()) != -1)
            {
                out.write(c);
            }
        }
        finally
        {
            if (in != null)
            {
                in.close();
            }
            if (out != null)
            {
                out.close();
            }
        }
    }
}
```

5.

```java
/*By 21CE105 Vraj Patel
Question : Write a program to enter any 15 numbers from the user and store
only even numbers in a file
named "Even.txt". And display the contents of this file on the console.
GITHUB LINK : https://github.com/PatelVraj10/java_practical_file_5 */

import java.io.*;
import java.util.*;


class P5P5
{
    public static void main(String... args) throws Exception
    {
        Scanner sc=new Scanner(System.in);
        int[] arr=new int[15];
        for(int i=0;i<15;i++)
        {
            System.out.println("Enter the "+(i+1)+" number : ");
            arr[i]=sc.nextInt();
        }

        //Buffered Writer
        FileWriter writer=new FileWriter("Part5Practical5Even.txt");
        BufferedWriter buffer= new BufferedWriter(writer);

        for(int i=0;i<15;i++)
        {
            if(arr[i]%2==0)
            {
                buffer.write(arr[i]+" ");
            }
        }
        buffer.close();
```

```
        //Buffered Reader
        FileReader fr=new FileReader("Part5Practical5Even.txt");
        BufferedReader br=new BufferedReader(fr);
        int i;
        System.out.println("Reading the file : ");
        while((i=br.read())!=-1)
        {
            System.out.print((char)i);
        }
        br.close();
        fr.close();
    }
}
```

6.

```java
/*By 21CE105 Vraj Patel
Question :  WAP to demonstrate methods of wrapper class
GITHUB LINK : https://github.com/PatelVraj10/java_practical_file_5 */


class P5P6
{
    public static void main(String args[])
    {
        byte b=10;
        short s=20;
        int i=30;
        long l=40;
        float f=50.0F;
        double d=60.0D;
        char c='a';
        boolean b2=true;

        //Autoboxing: Converting primitives into objects
        Byte byteobj=b;
        Short shortobj=s;
        Integer intobj=i;
        Long longobj=l;
        Float floatobj=f;
        Double doubleobj=d;
        Character charobj=c;
        Boolean boolobj=b2;

        //Printing objects
        System.out.println("---Printing object values---");
        System.out.println("Byte object: "+byteobj);
        System.out.println("Short object: "+shortobj);
        System.out.println("Integer object: "+intobj);
        System.out.println("Long object: "+longobj);
        System.out.println("Float object: "+floatobj);
```

```
        System.out.println("Double object: "+doubleobj);
        System.out.println("Character object: "+charobj);
        System.out.println("Boolean object: "+boolobj);

        //Unboxing: Converting Objects to Primitives
        byte bytevalue=byteobj;
        short shortvalue=shortobj;
        int intvalue=intobj;
        long longvalue=longobj;
        float floatvalue=floatobj;
        double doublevalue=doubleobj;
        char charvalue=charobj;
        boolean boolvalue=boolobj;

        //Printing primitives
        System.out.println("---Printing primitive values---");
        System.out.println("byte value: "+bytevalue);
        System.out.println("short value: "+shortvalue);
        System.out.println("int value: "+intvalue);
        System.out.println("long value: "+longvalue);
        System.out.println("float value: "+floatvalue);
        System.out.println("double value: "+doublevalue);
        System.out.println("char value: "+charvalue);
        System.out.println("boolean value: "+boolvalue);
    }
}
```