

(day-13 Assignment)

1.Create an arraylist of user-defined data type Book. it should have:-

i)Name of the Book

ii)Author of the book

iii)year of publication of the book

iV)number of copies sold.

sort the array list based on the year of publication.

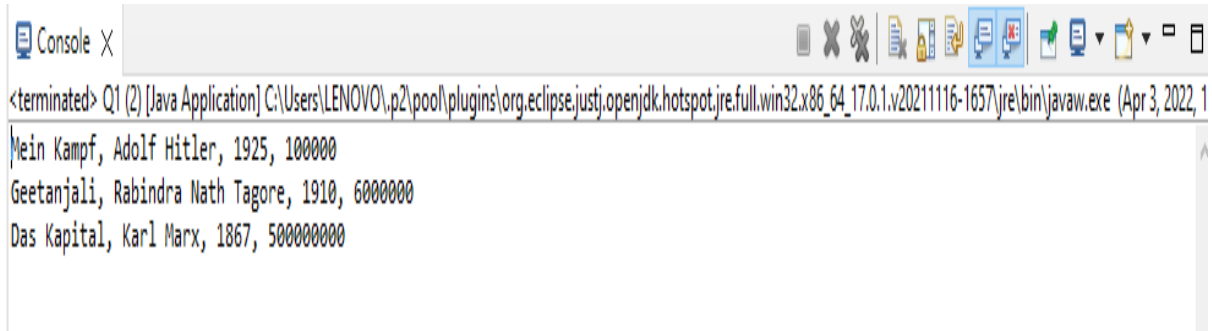
```
package SBA_2;
import java.util.*;
class Book implements Comparable{
    int sold;
    Integer year;
    String name,author;
    public Book( String name, String author, int year,int sold) {
        this.name = name;
        this.author = author;
        this.year = year;
        this.sold=sold;
    }
    public int getYear()
    {
        return this.year;
    }
    @Override
    public int compareTo(Object o) {
        Book b1=(Book) o;
        return (this.year.compareTo(b1.getYear()));
    }
}

public class Q1 {
    public static void main(String[] args) {
        //Creating list of Books
        List<Book> list=new ArrayList<Book>();
        //Creating Books
        Book b1=new Book("Mein Kampf","Adolf Hitler",1925,100000);
        Book b2=new Book("Geetanjali","Rabindra Nath Tagore",1910,6000000);
        Book b3=new Book("Das Kapital","Karl Marx",1867,500000000);
        //Adding Books to list
        list.add(b1);
        list.add(b2);
        list.add(b3);
        //Traversing list
        Collections.sort(list,Collections.reverseOrder());
        for(Book b:list){
```

```

        System.out.println(b.name+" "+b.author+" "+b.year+" "+b.sold);
    }
}
}

```



```

<terminated> Q1 (2) [Java Application] C:\Users\LENOVO\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64_17.0.1.v20211116-1657\jre\bin\javaw.exe (Apr 3, 2022, 1
Mein Kampf, Adolf Hitler, 1925, 100000
Geetanjali, Rabindra Nath Tagore, 1910, 6000000
Das Kapital, Karl Marx, 1867, 500000000

```

(day-14 assignment)

2. Write a program to create, write and read from a file.

```

package SBA_2;
import java.io.File;
import java.io.FileNotFoundException;
import java.io.FileWriter;
import java.io.IOException;
import java.util.Scanner;

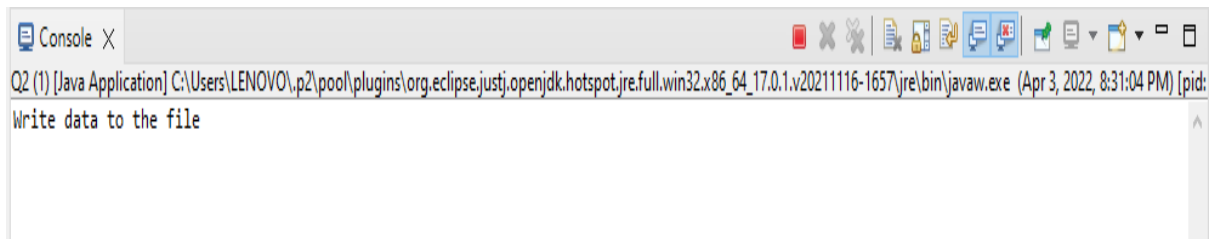
public class Q2 {
    public static void main(String[] args) {
        try
        {
            FileWriter f1=new FileWriter("D:\NewFile.txt");
            Scanner sc=new Scanner(System.in);
            System.out.println("Write data to the file");
            String s=sc.nextLine();
            f1.write(s);
            System.out.println("Data written successfully");
            f1.close();
            sc.close();
        }
        catch(IOException e)
        {
            System.out.println("an unexpected error has occurred");
            System.out.println(e);
        }
        try
        {
            File f2=new File("D:\NewFile.txt");
            Scanner sc1=new Scanner(f2);

```

```

        while(sc1.hasNextLine())
        {
            String fileData=sc1.nextLine();
            System.out.print("Reading data from the file.. ");
            System.out.println(fileData);
        }
        sc1.close();
    }
    catch(FileNotFoundException e)
    {
        System.out.println("There is some unexpected Problem");
        System.out.println(e);
    }
}
}

```



3. Write a program to get the information about the file.

```
package SBA_2;
```

```
import java.io.File;
```

```
import java.io.FileWriter;
```

```
import java.io.IOException;
```

```
public class Q3 {
```

```
public static void main(String[] args) throws IOException {
```

```
    File f1=new File("D:FileCreateExample.txt");
```

```
    FileWriter obj1=new FileWriter("D:FileCreateExample.txt");
```

```
    obj1.write("Hello World..This is a Java File Program");
```

```
    obj1.close();
```

```
    if(f1.exists())
```

```
    {
```

```
        System.out.println("The file name is: "+f1.getName());
```

```
        System.out.println("Is the file Writeable: "+f1.canWrite());
```

```
        System.out.println("The absolute Path of the file is: "+f1.getAbsolutePath());
```

```
        System.out.println("Is the file Readable: "+f1.canRead());
```

```
        System.out.println("The size of the file in bytes: "+f1.length());
```

```
        System.out.println("Hidden: " + f1.isHidden()); //Returns true if the specified
```

Path locates a file that is considered hidden by the file system.

```
        System.out.println("lastModifiedTime: " + f1.lastModified()); //Returns the
        specified file's last modified time.
```

```
        System.out.println("isDirectory: " + f1.isDirectory()); //Returns true if the
specified Path locates a file that is a directory.
```

```
    }
```

```
    else
```

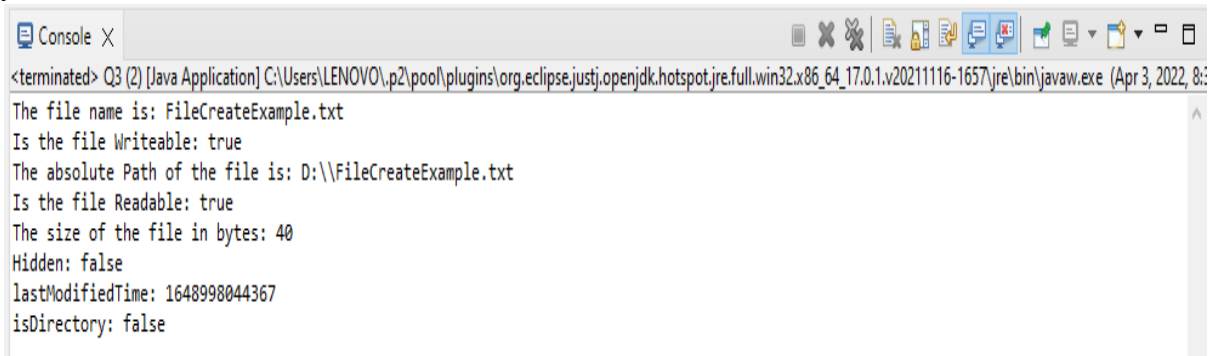
```
    {
```

```
        System.out.println("the file does not exist");
```

```
    }
```

```
}
```

```
}
```



```
Console X
<terminated> Q3 (2) [Java Application] C:\Users\LENOVO\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64_17.0.1.v20211116-1657\jre\bin\javaw.exe (Apr 3, 2022, 8:
The file name is: FileCreateExample.txt
Is the file Writeable: true
The absolute Path of the file is: D:\\FileCreateExample.txt
Is the file Readable: true
The size of the file in bytes: 40
Hidden: false
lastModifiedTime: 1648998044367
isDirectory: false
```

4. Write a program Implement the filereader until the file ending character is “-1” and print all the data of the file.

//4. Write a program Implement the filereader until the file ending character is “-1” and print all the data of the file.

```
package SBA_2;
```

```
import java.io.FileReader;
```

```
import java.io.FileWriter;
```

```
import java.io.IOException;
```

```
public class Q4 {
```

```
    public static void main(String[] args) {
```

```
        try
```

```
        {
```

```
            FileWriter obj1=new FileWriter("D:Q3_NewFile.txt");
```

```
            obj1.write("Program to Implement the filereader until the file ending
character is “-1” and print all the data of the file.");
```

```
            obj1.close();
```

```
        }
```

```
        catch(IOException e)
```

```
        {
```

```
            System.out.println("Some unexpected error has occurred");
```

```
            System.out.println(e);
```

```
        }
```

```

        try
        {
            FileReader textFileReader = new FileReader("D:Q3_NewFile.txt");

            int i;
            while((i=textFileReader.read())!=-1)
            System.out.print((char)i);
            textFileReader.close();
        }
        catch(IOException e)
        {
            System.out.println("Some unexpected error has occurred");
            System.out.println(e);
        }
    }
}

```

Console X

<terminated> Q4 (3) [Java Application] C:\Users\LENOVO\p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.1.v20211116-1657\jre\bin\javaw.exe (Apr 3, 2021 10:00:00 AM)

Program to Implement the filereader until the file ending character is "-1" and print all the data of the file.