1.

**1. Write a program to create a new text file named test.txt.**

**package** day10\_assign;

**import** java.io.File;

**import** java.io.IOException;

**public** **class** Q1 {

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

**try** {

File file=**new** File("Q1.txt");

**if** (file.createNewFile()) {

System.***out***.println("File created");

} **else** {

System.***out***.println("File already exists");

}

} **catch** (IOException e) {

System.***out***.println("Error"+e.getMessage());

}

}

}

* 2 . Write a program to check whether a file exists at a given path.

.

**package** day10\_assign;

**import** java.io.File;

**public** **class** Q2 {

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

File file = **new** File("Q1.txt");

**if** (file.exists()) {

System.***out***.println("File exists"+file.getName());

} **else** {

System.***out***.println("File not exists"+file.getName());

}

}

}

* 3. **Write a Java program to write "Hello, World!" into a file using FileWriter.**

**package** day10\_assign;

**import** java.io.FileWriter;

**import** java.io.IOException;

**public** **class** Q3 {

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

**try** {

FileWriter writer = **new** FileWriter("Q1.txt");

writer.write("Hello world");

writer.close();

System.***out***.println("Text written");

} **catch** (IOException e) {

System.***out***.println("Error"+e.getMessage());

}

}

}

4. **Write a program to read the content of a file line by line using BufferedReader.**

**package** day10\_assign;

**import** java.io.BufferedReader;

**import** java.io.FileReader;

**import** java.io.IOException;

**public** **class** Q4 {

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

**try** {

BufferedReader r=**new** BufferedReader(**new** FileReader("Q1.txt"));

String line;

**while** ((line=r.readLine()) != **null**) {

System.***out***.println(line);

}

r.close();

} **catch** (IOException e) {

System.***out***.println("Error"+e.getMessage());

}

}

}

* 5. **Write a program to append a line of text to an existing file.**

**package** day10\_assign;

**import** java.io.FileWriter;

**import** java.io.IOException;

**public** **class** Q5 {

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

**try** {

FileWriter writer = **new** FileWriter("Q1.txt", **true**);

writer.write("This is a new line");

writer.close();

System.***out***.println("Text appended to file");

} **catch** (IOException e) {

System.***out***.println("Error"+e.getMessage());

}

}

}

* 6 Write a program to count the number of lines, words, and characters in a file.

**package** day10\_assign;

**import** java.io.BufferedReader;

**import** java.io.FileReader;

**import** java.io.IOException;

**public** **class** Q6 {

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

**try** (BufferedReader reader = **new** BufferedReader(**new** FileReader("file.txt"))) {

**int** lineC=0;

**int** wordC=0;

**int** charC=0;

String line;

**while** ((line = reader.readLine())!=**null**) {

lineC++;

charC+=line.length()+1;

wordC+=line.split("\\s+").length;

}

System.***out***.println("Lines"+lineC);

System.***out***.println("Words"+ wordC);

System.***out***.println("Characters" +charC);

} **catch** (IOException e) {

System.***out***.println("Error"+e.getMessage());

}

}

}

7. **Write a program to copy content from one file to another using FileReader and FileWriter**

**package** day10\_assign;

**import** java.io.FileReader;

**import** java.io.FileWriter;

**import** java.io.IOException;

**public** **class** Q7 {

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

**try** (FileReader r=**new** FileReader("Q1.txt");

FileWriter w=**new** FileWriter("Q2.txt")) {

**int** charRead;

**while** ((charRead =r.read())!=-1) {

w.write(charRead);

}

System.***out***.println("File copied");

} **catch** (IOException e) {

System.***out***.println("Error"+e.getMessage());

}

}

}

8. **Write a program that lists all the files in a directory.**

**package** day10\_assign;

**import** java.io.File;

**public** **class** Q8 {

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

File directory = **new** File("C:\\Users\\priya\\eclipse-workspace\\Java\_practice");

**if** (directory.isDirectory()) {

File[] files =directory.listFiles();

**if** (files!=**null**) {

**for** (File f:files) {

**if** (f.isFile()) {

System.***out***.println("File"+f.getName());

} **else** **if** (f.isDirectory()) {

System.***out***.println("Directory"+f.getName());

}

}

} **else** {

System.***out***.println("Directory is empty");

}

} **else** {

System.***out***.println("Invalid");

}

}

}

9 Write a program to filter and display only .txt files from a folder using FilenameFilter

**package** day10\_assign;

**import** java.io.File;

**import** java.io.FilenameFilter;

**public** **class** Q9 {

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

File directory = **new** File("C:\\\\Users\\\\priya\\\\eclipse-workspace\\\\Java\_practice");

**if** (directory.isDirectory()) {

FilenameFilter filter = (dir, name)-> name.endsWith(".txt");

String[] files = directory.list(filter);

**if** (files != **null**) {

**for** (String f:files) {

System.***out***.println(f);

}

} **else** {

System.***out***.println("Directory is empty");

}

} **else** {

System.***out***.println("Invalid");

}

}

}

* 10. **Write a program to serialize and deserialize a Student object to and from a file.**

**package** day10\_assign;

**import** java.io.\*;

**class** Student **implements** Serializable {

**private** String name;

**private** **int** age;

**private** String rollNumber;

**public** Student(String name, **int** age, String rollNumber) {

**this**.name=name;

**this**.age =age;

**this**.rollNumber =rollNumber;

}

@Override

**public** String toString() {

**return** "Student{" +

"name='"+name+'\'' +

", age="+age+

", rollNumber='"+rollNumber+'\''+

'}';

}

}

**public** **class** Q10 {

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

Student student = **new** Student("John Doe", 20, "R123");

**try** (ObjectOutputStream oos = **new** ObjectOutputStream(**new** FileOutputStream("student.ser"))) {

oos.writeObject(student);

System.***out***.println("Student object serialized");

} **catch** (IOException e) {

System.***out***.println("Error" + e.getMessage());

}

**try** (ObjectInputStream ois = **new** ObjectInputStream(**new** FileInputStream("student.ser"))) {

Student deserializedStudent = (Student) ois.readObject();

System.***out***.println("Student object deserialized");

System.***out***.println(deserializedStudent);

} **catch** (IOException | ClassNotFoundException e) {

System.***out***.println("Error" + e.getMessage());

}

}

}

* 11. **Write a program to read a file using Scanner and display the tokens.**

**package** day10\_assign;

**import** java.io.File;

**import** java.io.FileNotFoundException;

**import** java.util.Scanner;

**public** **class** Q11 {

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

**try** {

File file = **new** File("file.txt");

Scanner scanner=**new** Scanner(file);

**while** (scanner.hasNext()) {

System.***out***.println(scanner.next());

}

scanner.close();

} **catch** (FileNotFoundException e) {

System.***out***.println("File not found"+e.getMessage());

}

}

}

12 Write a program to search for a specific word in a file and count its occurrences

**package** day10\_assign;

**import** java.io.File;

**import** java.io.FileNotFoundException;

**import** java.util.Scanner;

**public** **class** Q12 {

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

**try** (Scanner scanner =**new** Scanner(**new** File("story.txt"))) {

String wordToSearch ="java";

**int** count = 0;

**while** (scanner.hasNext()) {

String word = scanner.next().toLowerCase();

**if** (word.equals(wordToSearch.toLowerCase())) {

count++;

}

}

System.***out***.println("The word'"+ wordToSearch+"' appears"+count+"times");

} **catch** (FileNotFoundException e) {

System.***out***.println("File not foun"+e.getMessage());

}

}

}

* 13 Write a program to create, move, and delete a file using Files and Paths.

**package** day10\_assign;

**import** java.io.IOException;

**import** java.nio.file.Files;

**import** java.nio.file.Path;

**import** java.nio.file.Paths;

**public** **class** Q13 {

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

Path filePath = Paths.*get*("file1.txt");

Path movedFilePath = Paths.*get*("movedFile.txt");

**try** {

Files.*createFile*(filePath);

System.***out***.println("File created");

} **catch** (IOException e) {

System.***out***.println("Error"+e.getMessage());

}

**try** {

Files.*move*(filePath, movedFilePath);

System.***out***.println("File moved");

} **catch** (IOException e) {

System.***out***.println("Error"+e.getMessage());

}

**try** {

Files.*delete*(movedFilePath);

System.***out***.println("File deleted");

} **catch** (IOException e) {

System.***out***.println("Erro" + e.getMessage());

}

}

}

14 Write a program to read all lines of a file using Files.readAllLines() and print them

**package** day10\_assign;

**import** java.io.IOException;

**import** java.nio.file.Files;

**import** java.nio.file.Paths;

**public** **class** Q14 {

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

String filePath = "story.txt";

**try** {

Files.*readAllLines*(Paths.*get*(filePath)).forEach(System.***out***::println);

} **catch** (IOException e) {

System.***out***.println("Erro" + e.getMessage());

}

}

}

15. Write a program to write data into a file using Files.write() and append using StandardOpenOption.APPEND

**package** day10\_assign;

**import** java.io.IOException;

**import** java.nio.file.Files;

**import** java.nio.file.Path;

**import** java.nio.file.Paths;

**import** java.nio.file.StandardOpenOption;

**public** **class** Q15 {

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

Path filePath = Paths.*get*("Q1.txt");

String data = "Hello world";

**try** {

Files.*write*(filePath, data.getBytes());

System.***out***.println("Data written to file successfully.");

} **catch** (IOException e) {

System.***out***.println("Err"+ e.getMessage());

}

**try** {

Files.*write*(filePath,"\nAppended data.".getBytes(), StandardOpenOption.***APPEND***);

System.***out***.println("Data appended");

} **catch** (IOException e) {

System.***out***.println("Error " +e.getMessage());

}

}

}

16 Write a program to walk through a directory tree and display file names using Files.walk().

**package** day10\_assign;

**import** java.io.IOException;

**import** java.nio.file.Files;

**import** java.nio.file.Path;

**import** java.nio.file.Paths;

**public** **class** Q16 {

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

Path directoryPath = Paths.*get*("C:\\Users\\priya\\eclipse-workspace\\Java\_practice");

**try** {

Files.*walk*(directoryPath)

.forEach(System.***out***::println);

} **catch** (IOException e) {

System.***out***.println("Error"+e.getMessage());

}

}

}

17 Write a program to copy a file using Files.copy() with REPLACE\_EXISTING option

**package** day10\_assign;

**import** java.io.IOException;

**import** java.nio.file.Files;

**import** java.nio.file.Path;

**import** java.nio.file.Paths;

**import** java.nio.file.StandardCopyOption;

**public** **class** Q17 {

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

Path sourcePath=Paths.*get*("Q1.txt");

Path targetPath = Paths.*get*("Q2.txt");

**try** {

Files.*copy*(sourcePath, targetPath, StandardCopyOption.***REPLACE\_EXISTING***);

System.***out***.println("File copie");

} **catch** (IOException e) {

System.***out***.println("Error copying fil"+e.getMessage());

}

}

}

18. **Write a program to check and print the size of a file in bytes using Files.size().**

**package** day10\_assign;

**import** java.io.IOException;

**import** java.nio.file.Files;

**import** java.nio.file.Path;

**import** java.nio.file.Paths;

**public** **class** Q18 {

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

Path filePath = Paths.*get*("story.txt");

**try** {

**long** fileSize = Files.*size*(filePath);

System.***out***.println("File size"+fileSize+"bytes");

} **catch** (IOException e) {

System.***out***.println("Erro"+ e.getMessage());

}

}

}

19 Write a program to serialize a class Employee and store it in employee.ser.

**package** day10\_assign;

**import** java.io.\*;

**class** Employee **implements** Serializable {

**private** String name;

**private** **int** age;

**private** String department;

**public** Employee(String name, **int** age, String department) {

**this**.name =name;

**this**.age =age;

**this**.department =department;

}

**public** String toString() {

**return** "Employee{" +

"name='"+name +'\''+

", age=" + age +

", department='"+department+'\'' +

'}';

}

}

**public** **class** Q19 {

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

Employee employee = **new** Employee("lucky", 30,"Sales");

**try** (ObjectOutputStream oos = **new** ObjectOutputStream(**new** FileOutputStream("employee.ser"))) {

oos.writeObject(employee);

System.***out***.println("Employee object serialized and stored in employee.ser");

} **catch** (IOException e) {

System.***out***.println("Erro"+e.getMessage());

}

}

}

* 20. Write a program to deserialize the employee.ser file and display the object data.

/\*package day10\_assign;

import java.io.\*;

class Employee implements Serializable {

private String name;

private int age;

private String department;

public Employee(String name, int age, String department) {

this.name =name;

this.age=age;

this.department =department;

}

public String toString() {

return "Employee{" +

"name='"+name+'\'' +

", age=" +age +

", department='"+department + '\'' +

'}';

}

}

public class Q20 {

public static void main(String[] args) {

try (ObjectInputStream ois=new ObjectInputStream(new FileInputStream("employee.ser"))) {

Employee employee=(Employee) ois.readObject();

System.out.println("Deserialized Employee object");

System.out.println(employee.toString());

} catch (IOException | ClassNotFoundException e) {

System.out.println("Error"+e.getMessage());

}

}

}\*/