LAB1

Q1

```
interface AppleInterface {
    default void doiPhone() {
      System.out.println("iPhone");
    }
}

interface BadSamsung {
    default void doiPhone(String s) {
      System.out.println(s);
    }
}

class multinh implements AppleInterface,BadSamsung {
  public static void main(String[] args) {
    multinh m1 = new multinh();
    m1.doiPhone(); // default method called
    m1.doiPhone("We always copy the latest iPhone - Samsung"); // Will call
BadSamsung with string param
  }
}
```

Q2

```
import java.io.*;

class exphand {
  public static void main(String[] args) throws Exception {

    System.out.println("Type the generation of the iPhone -");
    InputStreamReader r=new InputStreamReader(System.in);
    BufferedReader br=new BufferedReader(r);
    String num=br.readLine();
    int gen = Integer.parseInt(num);

    String[] iPhoneArray = {"iPhone", "iPhone 3G", "iPhone 3GS","iPhone 4","iPhone
4S","iPhone 5","iPhone 5S","iPhone 6","iPhone 6S"};
```

```
    try {
      String selected = iPhoneArray[gen-1];
      System.out.println("Selected iPhone is -"+selected);
    }
    catch(Exception e) {
        System.out.print(e);
        System.out.println("No such iPhone exists for this generation");
    }
  }
}
```

Q3

```
class ThreadMethod extends Thread {
  Thread t;
  String name;
  String description;
  ThreadMethod(String nam,String desc) {
    description = desc;
    name = nam;
  }

  public void run() {
    System.out.println("Running "+name);
    try {
    System.out.println(name);
    for(int i = 0; i <5; i++) {
            System.out.println("Thread: " + description + ", " + i);
            Thread.sleep(50);
        }
    }
    catch(Exception e) {
      System.out.println(name+" Interrupted "+e);
    }
    System.out.println(name+" exited");
  }

  public void start(){
    System.out.println("Starting "+name);
    if (t == null) {
```

```
      t = new Thread (this,name);
      t.start ();
    }
  }
}

class multhread {
  public static void main(String[] args) {
    ThreadMethod AppleThread = new ThreadMethod("Apple","Apple innovates");
    AppleThread.start();
    ThreadMethod SamsungThread = new ThreadMethod("Samsung","Samsung
copies");
    SamsungThread.start();
  }
}
```

Q4

```
import java.io.*;
class filehand {
  public static void main(String[] args) throws Exception{
    System.out.println("Give the file a name");
    InputStreamReader r=new InputStreamReader(System.in);
    BufferedReader br=new BufferedReader(r);
    String fileName=br.readLine();
    try{
    FileWriter fw = new FileWriter(fileName);
    fw.write("Apple will release the new iPhone in September,2017");
    fw.close();
    }
    catch (Exception e) {
      System.out.println(e);
    }
    try{
    FileReader fr = new FileReader(fileName);
    int i;
    while((i=fr.read())!=-1)
      System.out.print((char)i);
    fr.close();
    }
    catch(Exception e) {
      System.out.println(e);
```

```
    }

  }
}
```

Q5

Employee.java

```
package lab1;

public class Employee {
  int salary;
  String name;

  Employee(String n) {
    name = n;
    salary = 20000;
  }

  public void salaryChange(int amt) {
    if (amt >salary) {
      int change = amt - salary;
      System.out.println("Salary increased by "+change);
    }
    else {
      int change = salary - amt;
      System.out.println("Salary decreased by "+change);
    }
  }

  public void empQuit() {
    salary = 0;
  }

  public int getInfo() {
    return salary;
  }
}
```

EmpHandler.java

```
package lab1;

import java.io.*;
public class EmpHandler {
  public static void main(String[] args) {
        Employee e1 = new Employee("Shubham");
    System.out.println("Enter choice -");
    System.out.println("1.Increase Salary\n2. Decrease Salary");

    BufferedReader br = new BufferedReader(new InputStreamReader(System.in));
    String str = br.readLine();
    int ch = Integer.parseInt(str);
    switch(ch) {
        case 1:{
                    System.out.println("Enter amount to increase");
                    String amt = br.readLine();
                    int intAmt = Integer.parseInt(amt);
                    e1.salary += intAmt;
                    System.out.println("Salary = "+e1.getInfo);
                }
                break;
        case 2: {
                    System.out.println("Enter amount to decrease");
                    String amt = br.readLine();
                    int intAmt = Integer.parseInt(amt);
                    e1.salary -= intAmt;
                    System.out.println("Salary = "+e1.getInfo);
        }
        break;
        default: break;
    }
  }
}
```