1. Modify the following code to protect it from crashing if the user enters an input that is not a number:

import java.util.Scanner;

public class ReadIntegerStrings

{

//-----------------------------------------------------------------

// Reads strings and converts them to integers, catching invalid

// integers. Continues until 10 valid strings are read.

//-----------------------------------------------------------------

public static void main (String[] args)

{

final int MAX = 10;

String input = "";

int count = 1, num;

double sum = 0;

Scanner scan = new Scanner (System.in);

do

{

System.out.print ("Enter integer " + count + ": ");

input = scan.nextLine();

num = Integer.parseInt(input);

sum = sum + num;

count++;

System.out.println("INVALID INTEGER. Please reenter.");

}while (count <= MAX);

System.out.println("Average: " + sum/MAX);

}

}

Answer :

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

// ReadIntegerStrings.java Java Foundations

//

// Solution to Programming Project 10.1

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

**import** java.util.Scanner;

**public** **class** ReadIntegerStrings

{

//-----------------------------------------------------------------

// Reads strings and converts them to integers, catching invalid

// integers. Continues until 10 valid strings are read.

//-----------------------------------------------------------------

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

{

**final** **int** MAX = 10;

String input = "";

**int** count = 1, num;

**double** sum = 0;

Scanner scan = **new** Scanner (System.***in***);

**do**

{

System.***out***.print ("Enter integer " + count + ": ");

input = scan.nextLine();

**try**

{

num = Integer.*parseInt*(input);

sum = sum + num;

count++;

}

**catch** (NumberFormatException e)

{

System.***out***.println("INVALID INTEGER. Please reenter.");

}

}

**while** (count <= MAX);

System.***out***.println("Average: " + sum/MAX);

}

}

2) What do you think the following code does?

Write down the

import java.util.Scanner;

import java.io.\*;

public class UserStringWriter

{

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

{

Scanner scan = new Scanner(System.in);

String fileName = "userStrings.txt";

PrintWriter outFile = new PrintWriter(fileName);

String input = "";

do

{

System.out.print ("Enter a string: ");

input = scan.nextLine();

if (!input.equals("DONE"))

outFile.println(input);

}

while (!input.equals("DONE"));

outFile.close();

System.out.println ("Output file has been created: " + fileName);

}

}

3) Copy the code in question 2 and try it on Eclipse. Does the code run? How can you fix it.

Answer:

**import** java.util.Scanner;

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

**public** **class** Exception\_Example1

{

//-----------------------------------------------------------------

// Reads strings from the user and writes them to an output file

// until the sentinel value "DONE" is entered.

//-----------------------------------------------------------------

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

{

Scanner scan = **new** Scanner(System.***in***);

String fileName = "userStrings.dat";

PrintWriter outFile = **new** PrintWriter(fileName);

String input = "";

**do**

{

System.***out***.print ("Enter a string: ");

input = scan.nextLine();

**if** (!input.equals("DONE"))

outFile.println(input);

}

**while** (!input.equals("DONE"));

outFile.close();

System.***out***.println ("Output file has been created: " + fileName);

}

}

The code is fine, it gets string from a user and prints them to a file userStringWriter.txt