

Java Fundamentals – Nipun Drayan

Q-1

```
import java.util.Collections;

import java.util.Scanner;

import java.util.Vector;

public class Question_1 {

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

        int n = sc.nextInt();

        Vector<Integer> vec = new Vector<Integer>(n);

        for (int i = 0; i < n; i++) {
            vec.add(sc.nextInt());
        }

        System.out.println("Vectore before sorting : " + vec);

        Collections.sort(vec);

        System.out.println("Vector after sorting : " + vec);
    }
}
```

```
1 import java.util.Collections;
2 import java.util.Scanner;
3 import java.util.Vector;
4 public class Question_1 {
5
6     public static void main(String args[])
7     {
8         Scanner sc = new Scanner(System.in);
9         int n = sc.nextInt();
10        Vector<Integer> vec = new Vector<Integer>(n);
11
12
13        for (int i = 0; i < n; i++) {
14            vec.add(sc.nextInt());
15        }
16
17
18        System.out.println("Vectore before sorting : " + vec);
19
20        Collections.sort(vec);
21
22        System.out.println("Vector after sorting : " + vec);
23    }
24 }
25
```

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Try the new cross-platform PowerShell <https://aka.ms/powershell>

PS C:\Users\nipun\Desktop\Java_Fundamentals - Morning> & 'c:\Users\nipun\.vscode\extensions\vscode-java-debug-0.30.0\scripts\launcher.bat' 'C:\Program Files\Java\jdk-15.0.2\bin\java.exe' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-Dfile.encoding=UTF-8' '-cp' 'C:\Users\nipun\AppData\Roaming\Code\User\workspaceStorage\7412ce86bfb1b9377013213b53efce84\redhat.java\jdt_ws\Java_Fundamentals - Morning_b2f07ec9\bin' 'Question_1'

5
30 12 78 5 42
Vectore before sorting : [30, 12, 78, 5, 42]
Vector after sorting : [5, 12, 30, 42, 78]

Q2- Using “throw”

```
import java.util.Scanner;

public class Question_2 {

    static void find(int age)

    {

        if(age<18)

        {

            throw new ArithmeticException("No voter ID card");

        }

        else

        {

            System.out.println("Voter ID card should be made");

        }

    }

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        int percentage = sc.nextInt();
```

```

        find(percentage);
    }
}

```

The screenshot shows a VS Code editor with a Java file named `Question_2.java`. The code defines a `find(int age)` method that throws an `ArithmeticException` if the age is less than 18, and prints a message otherwise. The `main` method uses a `Scanner` to read an integer and calls `find`. The terminal window shows the output: "Voter ID card should be made" followed by an `Exception in thread "main" java.lang.ArithmeticException: No voter ID card`.

```

1  import java.util.Scanner;
2  public class Question_2 {
3      static void find(int age)
4      {
5          if(age<18)
6          {
7              throw new ArithmeticException("No voter ID card");
8          }
9          else
10         {
11             System.out.println("Voter ID card should be made");
12         }
13     }
14     public static void main(String[] args) {
15         Scanner sc = new Scanner(System.in);
16         int percentage = sc.nextInt();
17         find(percentage);
18     }
19 }
20

```

```

t' 'C:\Program Files\Java\jdk-15.0.2\bin\java.exe' '-enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-Dfile.encoding=UTF-8' '-cp' 'C:\Users\nipun\AppData\Roaming\Code\User\workspaceStorage\7412c
e86fbf1b9377013213b53efce84\redhat.java\jdk_ws\Java_Fundamentals - Morning_b2f07ec9\bin' 'Question_2'
24
Voter ID card should be made
PS C:\Users\nipun\Desktop\Java_Fundamentals - Morning> cd 'c:\Users\nipun\Desktop\Java_Fundamentals - Morning'; & 'c:\Users\nipun\.vscode\extensions\vscjava.vscode-java-debug-0.30.0\scripts\launcher.ba
t' 'C:\Program Files\Java\jdk-15.0.2\bin\java.exe' '-enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-Dfile.encoding=UTF-8' '-cp' 'C:\Users\nipun\AppData\Roaming\Code\User\workspaceStorage\7412c
e86fbf1b9377013213b53efce84\redhat.java\jdk_ws\Java_Fundamentals - Morning_b2f07ec9\bin' 'Question_2'
17
Exception in thread "main" java.lang.ArithmeticException: No voter ID card
    at Question_2.find(Question_2.java:7)
    at Question_2.main(Question_2.java:17)
PS C:\Users\nipun\Desktop\Java_Fundamentals - Morning>

```

Using “throws

```

import java.util.Scanner;

public class Question_2_2 {

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

        Scanner sc = new Scanner(System.in);

        int a = sc.nextInt();

        int b = sc.nextInt();

        System.out.println((a/b));

    }

}

```

Question_2_2.java

1

import java.util.Scanner;

2

public class Question_2_2 {

3

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

4

Scanner sc = new Scanner(System.in);

5

int a = sc.nextInt();

6

int b = sc.nextInt();

7

System.out.println((a/b));

8

}

9

}

10

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

Java Process Console

PS C:\Users\nipun\Desktop\Java_Fundamentals - Morning> c::; cd 'c:\Users\nipun\Desktop\Java_Fundamentals - Morning'; & 'c:\Users\nipun\.vscode\extensions\vscjava.vscode-java-debug-0.30.0\scripts\launcher.bat' 'C:\Program Files\Java\jdk-15.0.2\bin\java.exe' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-Dfile.encoding=UTF-8' '-cp' 'C:\Users\nipun\AppData\Roaming\Code\User\workspaceStorage\7412ce86fbf1b9377013213b53efce84\redhat.java\jdt_ws\Java_Fundamentals - Morning_b2f07ec9\bin' 'Question_2_2'

4

0

Exception in thread "main" java.lang.ArithmeticException: / by zero

at Question_2_2.main(Question_2_2.java:7)

PS C:\Users\nipun\Desktop\Java_Fundamentals - Morning>