

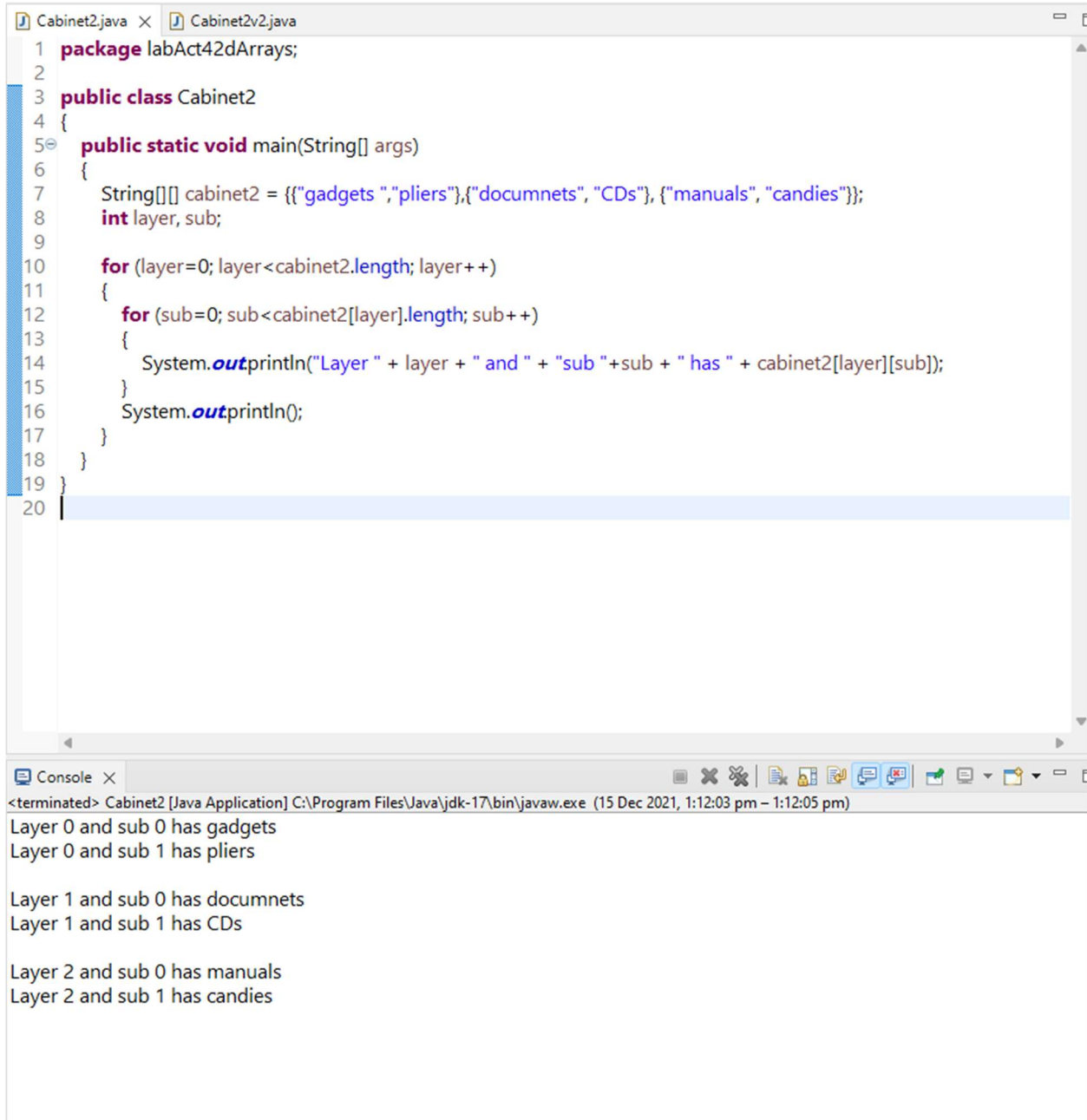
**DOCUMENTATION**  
**Laboratory Activity 4**

**Marasigan, Vem Aiensi A.**  
**1-BSEMC-.1**  
**BS Computer Science**

**December 15, 2021**

**2 Dimensional Arrays Activities**

**Cabinet2**



```
1 package labAct42dArrays;
2
3 public class Cabinet2
4 {
5     public static void main(String[] args)
6     {
7         String[][] cabinet2 = {"gadgets ", "pliers"}, {"documnets", "CDs"}, {"manuals", "candies"};
8         int layer, sub;
9
10        for (layer=0; layer<cabinet2.length; layer++)
11        {
12            for (sub=0; sub<cabinet2[layer].length; sub++)
13            {
14                System.out.println("Layer " + layer + " and " + "sub "+sub + " has " + cabinet2[layer][sub]);
15            }
16            System.out.println();
17        }
18    }
19 }
20
```

Console

<terminated> Cabinet2 [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (15 Dec 2021, 1:12:03 pm – 1:12:05 pm)

Layer 0 and sub 0 has gadgets  
Layer 0 and sub 1 has pliers

Layer 1 and sub 0 has documnets  
Layer 1 and sub 1 has CDs

Layer 2 and sub 0 has manuals  
Layer 2 and sub 1 has candies

Video Link:

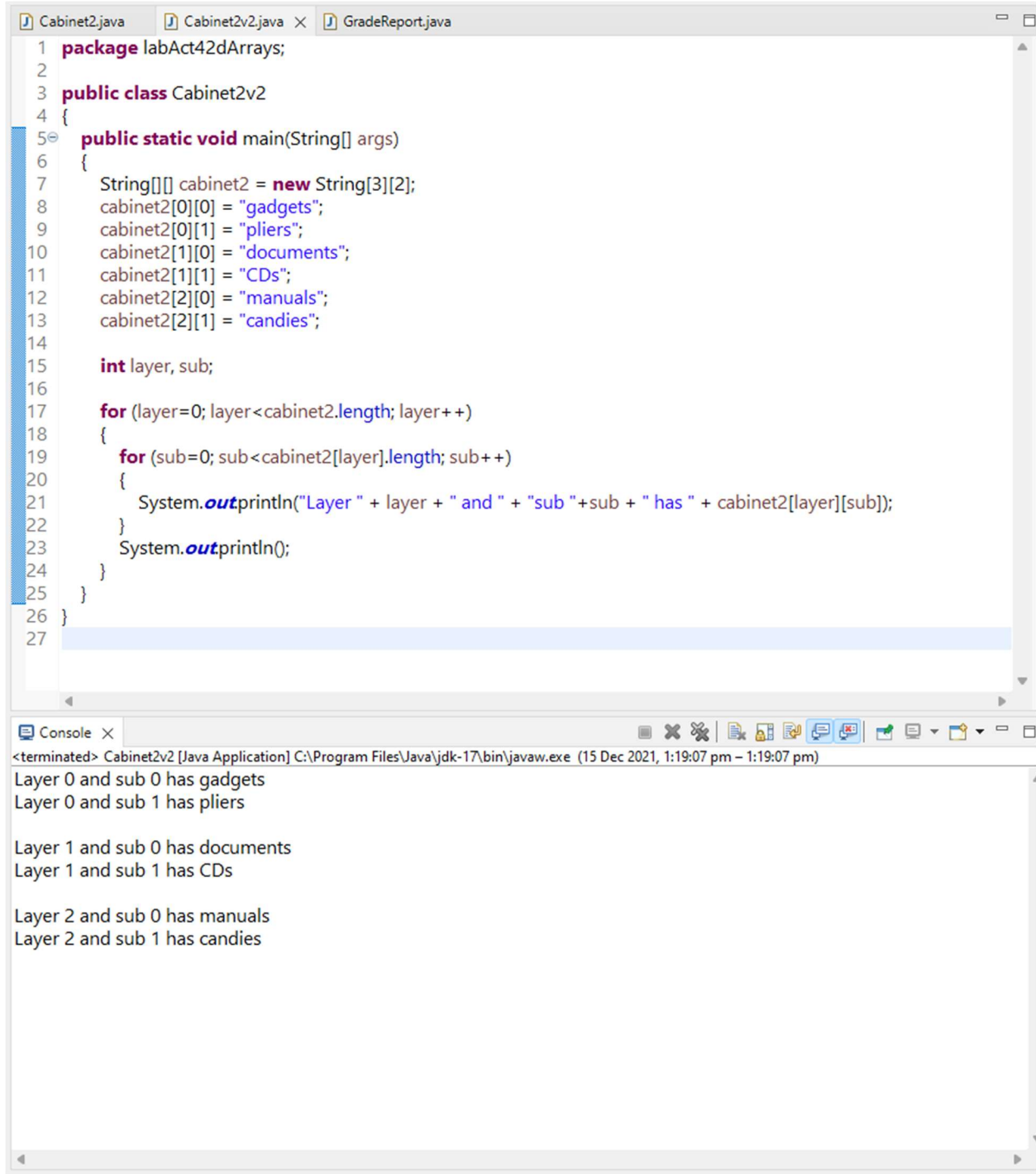
<https://drive.google.com/file/d/15Wgo4HIW3LdF-KP9y6ONYzPEmUAs0N7e/view?usp=sharing>

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**Cabinet2 2<sup>nd</sup> Version**



The screenshot displays an IDE with three tabs: `Cabinet2.java`, `Cabinet2v2.java`, and `GradeReport.java`. The `Cabinet2v2.java` tab is active, showing the following Java code:

```
1 package labAct42dArrays;
2
3 public class Cabinet2v2
4 {
5     public static void main(String[] args)
6     {
7         String[][] cabinet2 = new String[3][2];
8         cabinet2[0][0] = "gadgets";
9         cabinet2[0][1] = "pliers";
10        cabinet2[1][0] = "documents";
11        cabinet2[1][1] = "CDs";
12        cabinet2[2][0] = "manuals";
13        cabinet2[2][1] = "candies";
14
15        int layer, sub;
16
17        for (layer=0; layer<cabinet2.length; layer++)
18        {
19            for (sub=0; sub<cabinet2[layer].length; sub++)
20            {
21                System.out.println("Layer " + layer + " and " + "sub "+sub + " has " + cabinet2[layer][sub]);
22            }
23            System.out.println();
24        }
25    }
26 }
27
```

Below the code editor is a console window titled "Console" showing the output of the program:

```
<terminated> Cabinet2v2 [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (15 Dec 2021, 1:19:07 pm - 1:19:07 pm)
Layer 0 and sub 0 has gadgets
Layer 0 and sub 1 has pliers

Layer 1 and sub 0 has documents
Layer 1 and sub 1 has CDs

Layer 2 and sub 0 has manuals
Layer 2 and sub 1 has candies
```

Video Link:

<https://drive.google.com/file/d/1twZBMRHiyOSN0JOJyZuUjpfXyEkZgIOP/view?usp=sharing>

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**GradeReport**

```
Cabinet2.java  Cabinet2v2.java  GradeReport.java  X
1  package labAct42dArrays;
2  import java.util.Scanner;
3  public class GradeReport
4  {
5      public static void main(String[] args)
6      {
7          Scanner input = new Scanner(System.in);
8          int numStud = 0;
9
10         String[] subject = {"Physics", "Algebra", "Programming"};
11
12         System.out.print("Enter the number of students to process: ");
13         numStud = input.nextInt();
14
15         String[] studName = new String[numStud];
16         double[][] grade = new double[numStud][3];
17         double[] totalGrade = new double[numStud];
18
19         // Data Entry
20         for (int gRow = 0; gRow < numStud; gRow++)
21         {
22             System.out.print("\nEnter student name: ");
23             studName[gRow] = input.next();
24             for (int gCol = 0; gCol < 3; gCol++)
25             {
26                 System.out.print("Enter a grade in " + subject[gCol] + ": ");
27                 grade[gRow][gCol] = input.nextDouble();
28
29                 totalGrade[gRow] += grade[gRow][gCol];
30             }
31         }
32         //Display Report
33         System.out.println("\nGrade Report");
34         System.out.println("-----");
35         for (int dispRow = 0; dispRow < numStud; dispRow++)
36         {
37             System.out.println("\nStudent name: " + studName[dispRow]);
38
39             for (int dispCol = 0; dispCol < 3; dispCol++)
40             {
41                 System.out.println("Grade in " + subject[dispCol] + " is " + grade[dispRow][dispCol]);
42             }
43
44             System.out.println("Average grade is: " + totalGrade[dispRow]/3.0);
45         }
46     }
47 }
48
```

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**December 15, 2021**



```
<terminated> GradeReport [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (16 Dec 2021, 6:37:08 pm - 6:38:07 pm)

Enter student name: Alex
Enter a grade in Physics: 93
Enter a grade in Algebra: 91
Enter a grade in Programming: 88

Enter student name: Eduardo
Enter a grade in Physics: 85
Enter a grade in Algebra: 95
Enter a grade in Programming: 89

Enter student name: Dax
Enter a grade in Physics: 95
Enter a grade in Algebra: 96
Enter a grade in Programming: 98

Enter student name: Allene
Enter a grade in Physics: 87
Enter a grade in Algebra: 88
Enter a grade in Programming: 91

Grade Report
-----

Student name: Alex
Grade in Physics is 93.0
Grade in Algebra is 91.0
Grade in Programming is 88.0
Average grade is: 90.66666666666667

Student name: Eduardo
Grade in Physics is 85.0
Grade in Algebra is 95.0
Grade in Programming is 89.0
Average grade is: 89.66666666666667

Student name: Dax
Grade in Physics is 95.0
Grade in Algebra is 96.0
Grade in Programming is 98.0
Average grade is: 96.33333333333333

Student name: Allene
Grade in Physics is 87.0
Grade in Algebra is 88.0
Grade in Programming is 91.0
Average grade is: 88.66666666666667
```

Video Link:

<https://drive.google.com/file/d/1Fqbc8e1pMEkRa1gy0vF3-XSpxQh6soih/view?usp=sharing>