PRACTICE PROBLEMS JAVA MODULE 1

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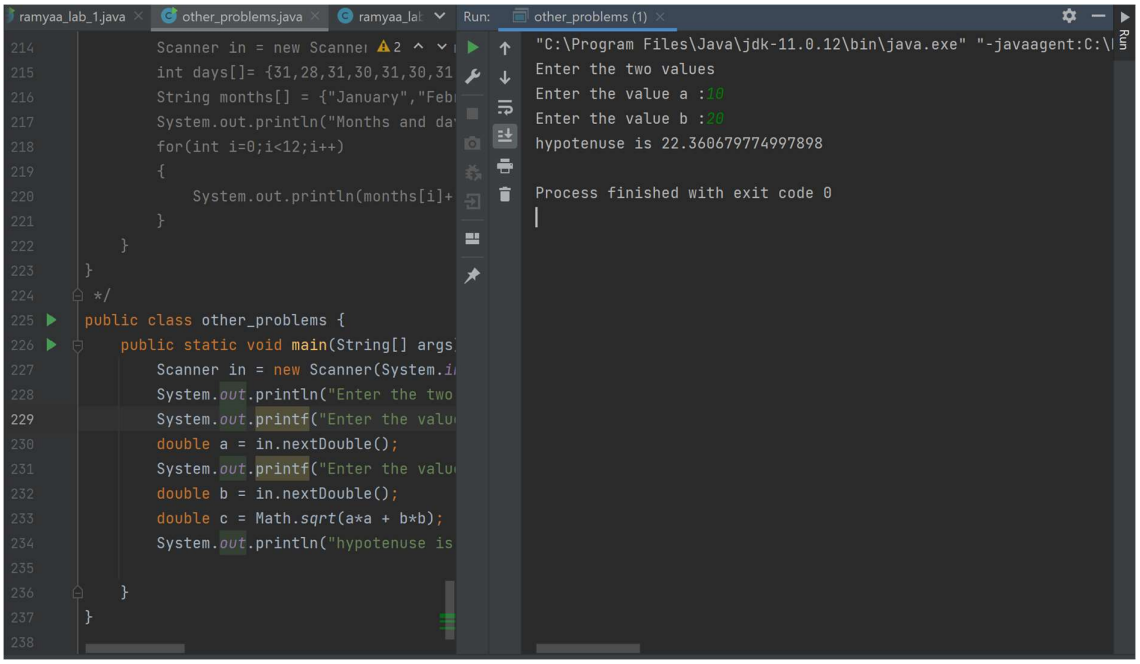
1. Hypotenuse of a right angle triangle

Solution:

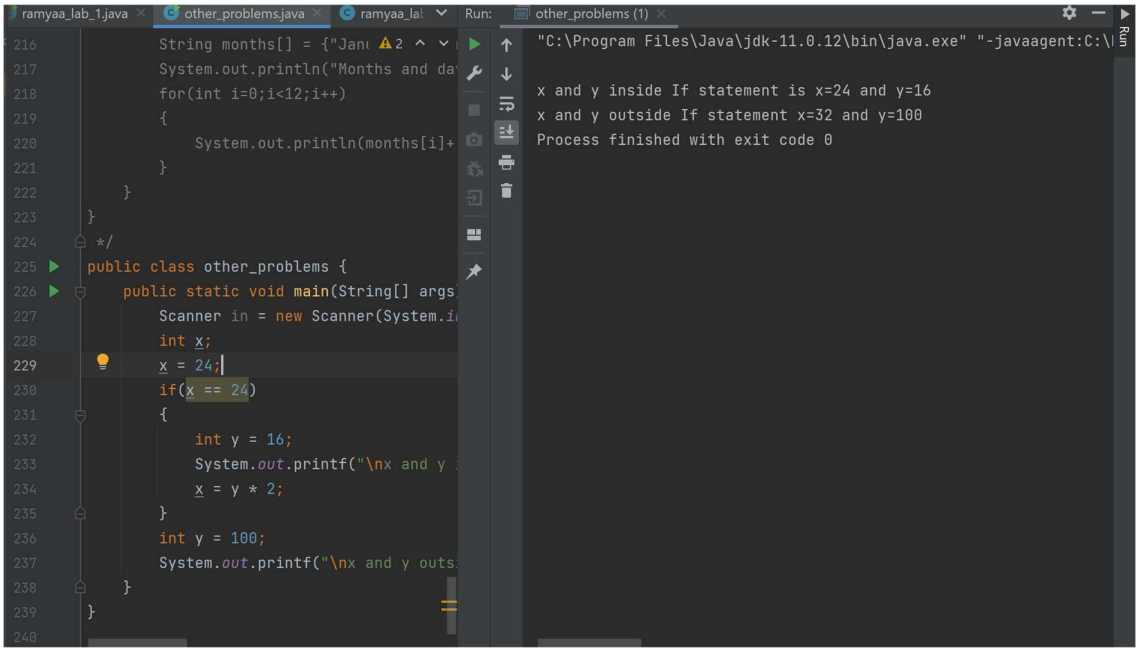
```
public class other_problems {
 public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        System.out.println("Enter the two values");
        System.out.printf("Enter the value a :");
        double a = in.nextDouble();
        System.out.printf("Enter the value b :");
        double b = in.nextDouble();
        double c = Math.sqrt(a*a + b*b);
        System.out.println("hypotenuse is "+c);


    }
}
```



2. Displaying Block scope

Solution:

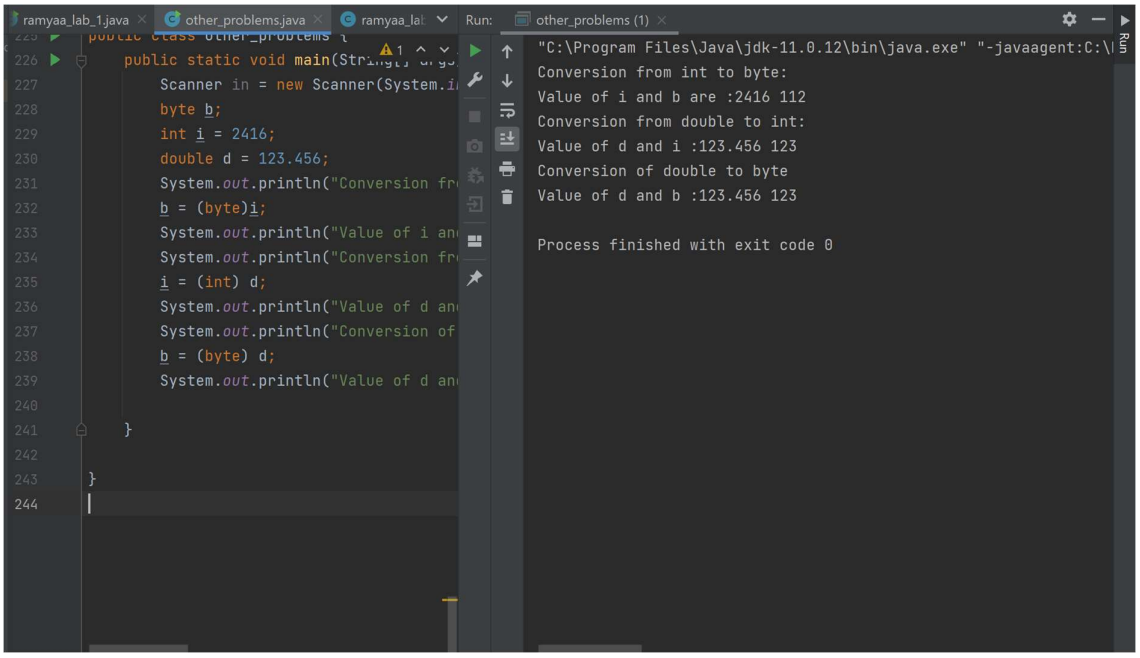
```
public class other_problems {
    public static void main(String[] args) {
      Scanner in = new Scanner(System.in);
      int x;
      x = 24;
      if(x == 24)
      {
        int y = 16;
        System.out.printf("\nx and y inside If statement is x=%d and y=%d",x,y);
        x = y * 2;
      }
      int y = 100;
      System.out.printf("\nx and y outside If statement x=%d and y=%d",x,y);
   }
}
```



3. Casting Type

Solution:

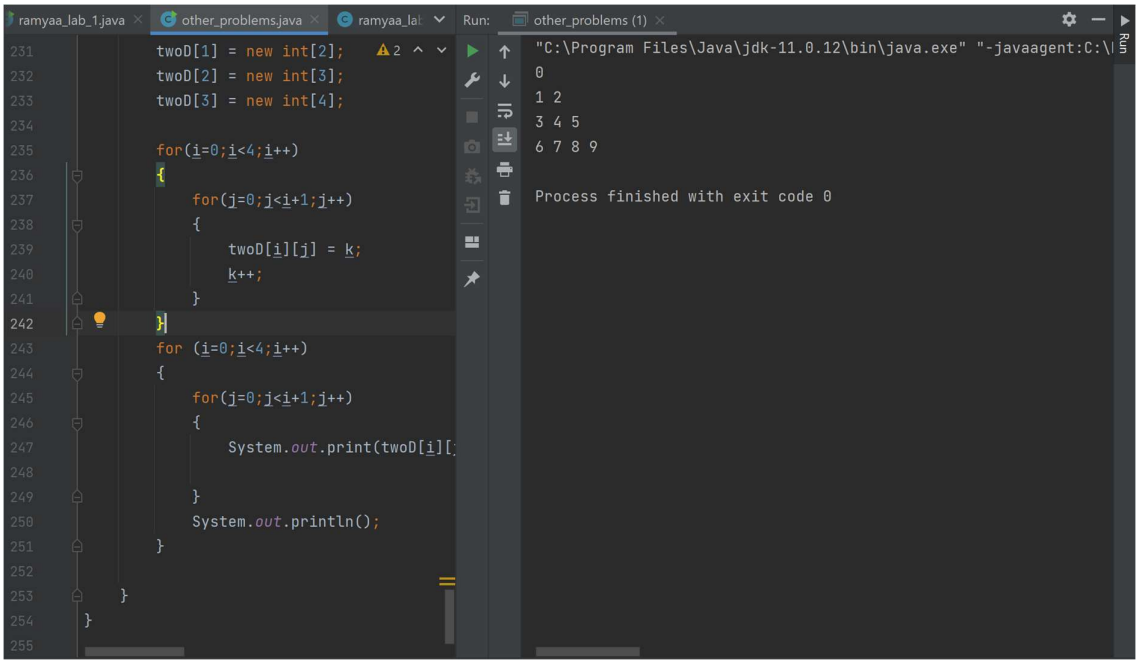
```
public class other_problems {
    public static void main(String[] args) {
      Scanner in = new Scanner(System.in);
      byte b;
      int i = 2416;
      double d = 123.456;
      System.out.println("Conversion from int to byte:");
      b = (byte)i;
      System.out.println("Value of i and b are :"+i+" "+b);
      System.out.println("Conversion from double to int:");
      i = (int) d;
      System.out.println("Value of d and i :"+d+" "+i);
      System.out.println("Conversion of double to byte");
      b = (byte) d;
      System.out.println("Value of d and b :"+d+" "+b);

   }
}
```



4. Printing pattern using 2-D Array

Solution:

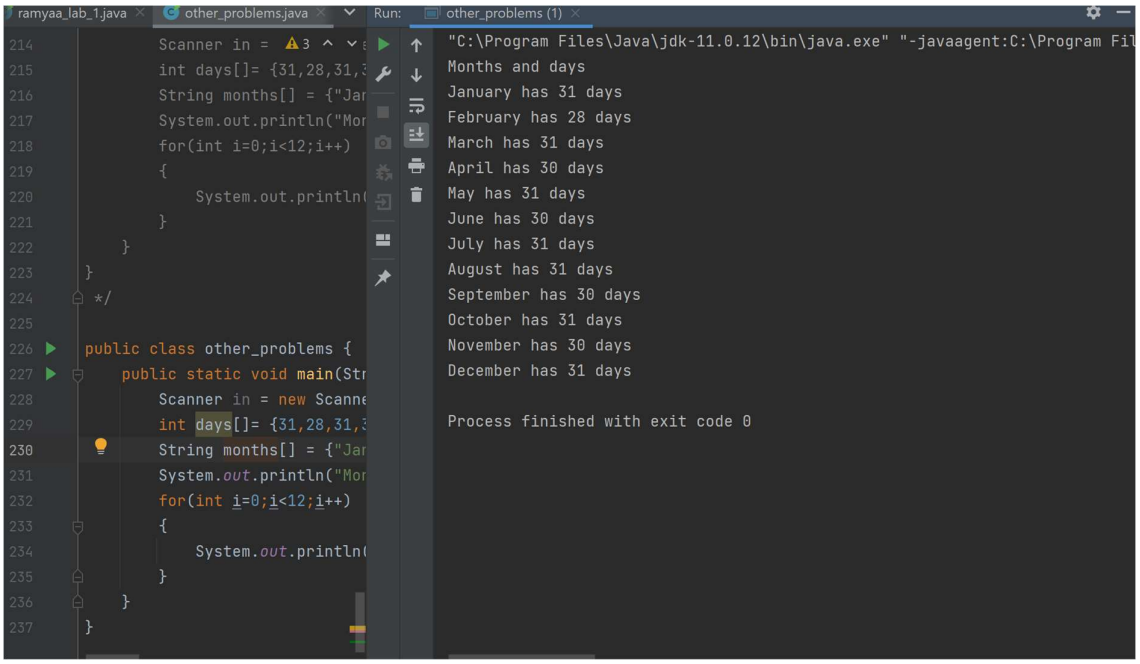
```
public class other_problems {
   public static void main(String[] args) {
      Scanner in = new Scanner(System.in);
      int i,j,k=0;
      int twoD[][] = new int[4][];
      twoD[0] = new int[1];
      twoD[1] = new int[2];
      twoD[2] = new int[3];
      twoD[3] = new int[4];

      for(i=0;i<4;i++)
      {
         for(j=0;j<i+1;j++)
         {
            twoD[i][j] = k;
            k++;
         }
      }
      for (i=0;i<4;i++)
      {
         for(j=0;j<i+1;j++)
         {
            System.out.print(twoD[i][j]+" ");

         }
         System.out.println();
      }

   }
}
```



5. Printing Months and Days using 1-D array

Solution:

```
public class other_problems {

   public static void main(String[] args) {

      Scanner in = new Scanner(System.in);

      int days[]= {31,28,31,30,31,30,31,31,30,31,30,31};

      String months[] =
{"January","February","March","April","May","June","July","August","September","October","Nove
mber","December"};

      System.out.println("Months and days");

      for(int i=0;i<12;i++)

      {

         System.out.println(months[i]+" has "+days[i]+" days");

      }

   }

}
```


ramyaa_lab_1.java
other_problems.java
Run:
other_problems (1)
"C:\Program Files\Java\jdk-11.0.12\bin\java.exe" "-javaagent:C:\Program Fil
Months and days
January has 31 days
February has 28 days
March has 31 days
April has 30 days
May has 31 days
June has 30 days
July has 31 days
August has 31 days
September has 30 days
October has 31 days
November has 30 days
December has 31 days
Process finished with exit code 0