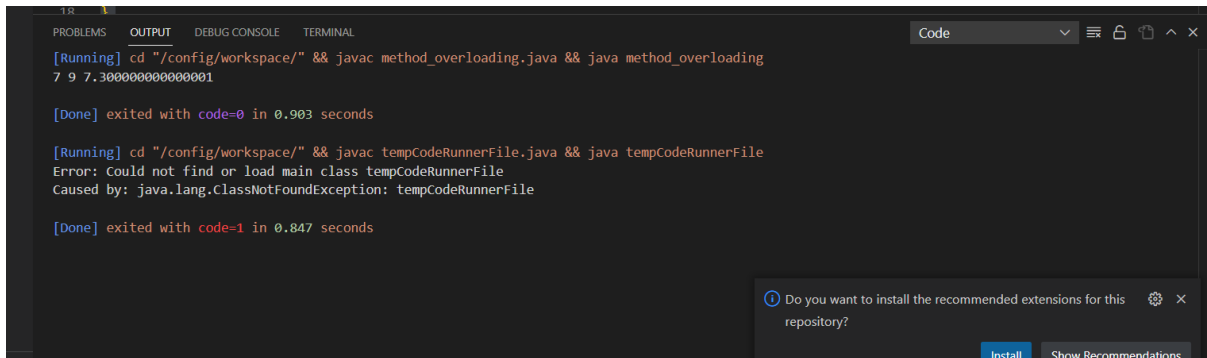# Objects and Arrays

1. Write a program to demonstrate method overloading with 3 different parameters.

Ans:

```java
class calc{
    public int add(int n1, int n2)
    {
        int result=n1+n2;
        return result;
    }
    public int add(int n1, int n2,int n3)
    {
        int result=n1+n2+n3;
        return result;
    }
    public double add(double n1, double n2)
    {
        double result= n1 + n2;
        return result;
    }
}
class method_overloading {
    public static void main(String[] args) {
        calc obj=new calc();
        int result=obj.add(4,3);
        int res1=obj.add(4,3,2);
        double res2=obj.add(4.2,3.1);
        System.out.println(result+" "+res1+" "+res2);


    }
}
```
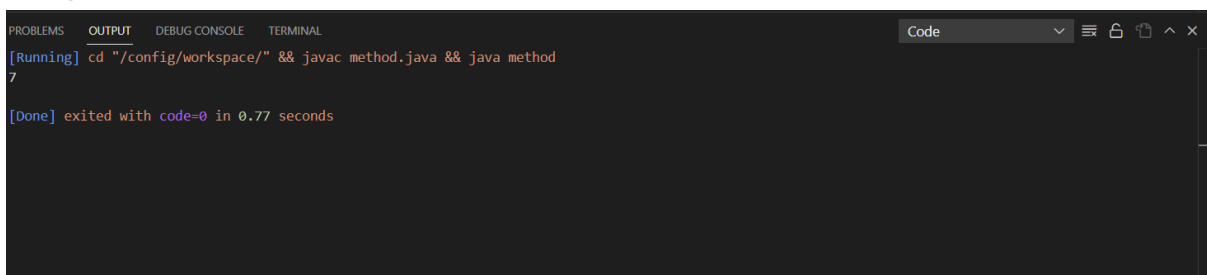
Output:

2. Write a program to create an object of an class which contain a method and call that class method in main method

Ans:

```java
    class Addition{
 public int add (int n1,int n2)
{
int result=n1+n2;
return result;
}
}
public class method {
    public static void main(String[] args){
Addition obj = new Addition();
int result=obj.add(3,4);
System.out.println(result);
    }
}
```

Output:

3. Write a Java program to calculate the sum of all elements in an integer array?

Ans:

```java
    public class sum_of_array {
public static void main (String[] args){
        int arr[] = new int[5];
        arr[0]=1;
        arr[1]=2;
        arr[2]=4;
        arr[3]=5;
        arr[4]=8;
        int sum=0;
        for(int i=0;i<5;i++){
sum+=arr[i];
        }
        System.out.println(sum);


    }
}
```
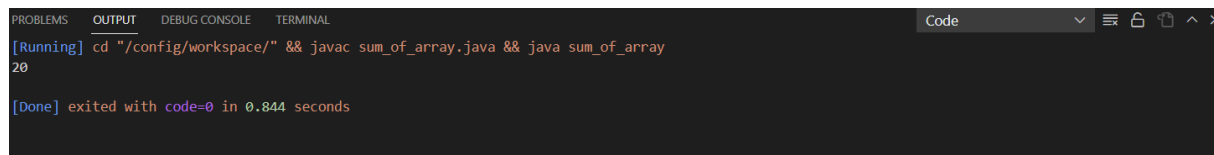
Output:

4. Write a Java program to find the index of a specific element in an integer array?

Ans:

```java
public class find_index {
 public static void main (String []args){
    int count=0;
    int arr[] = new int[5];
    arr[0] = 4;
    arr[1] = 5;
    arr[2] = 9;
    arr[3] = 10;
    arr[4] = 12;
    //find index of 5
    for(int i=0;i<5;i++){
```

```java
        if(arr[i]==5){
        System.out.println("Element found at index "+i);
        count=1;
        }
    }
    //if element is not found
    if (count==0)
    System.out.println("Element not found");
}
}
```

Output:

5. Write a Java program to print an entire array?
Ans:

```java
    class print_array{
public static void main(String []args){
int arr[] = new int[5];
    arr[0] = 4;
    arr[1] = 5;
    arr[2] = 9;
    arr[3] = 10;
    arr[4] = 12;
for(int i=0;i<5;i++){
    System.out.print(arr[i]+" ");
}
}
}
```

Output:

```
[Running] cd "/config/workspace/" && javac print_array.java && java print_array
4 5 9 10 12
[Done] exited with code=0 in 0.838 seconds
```