

2). Explanation :

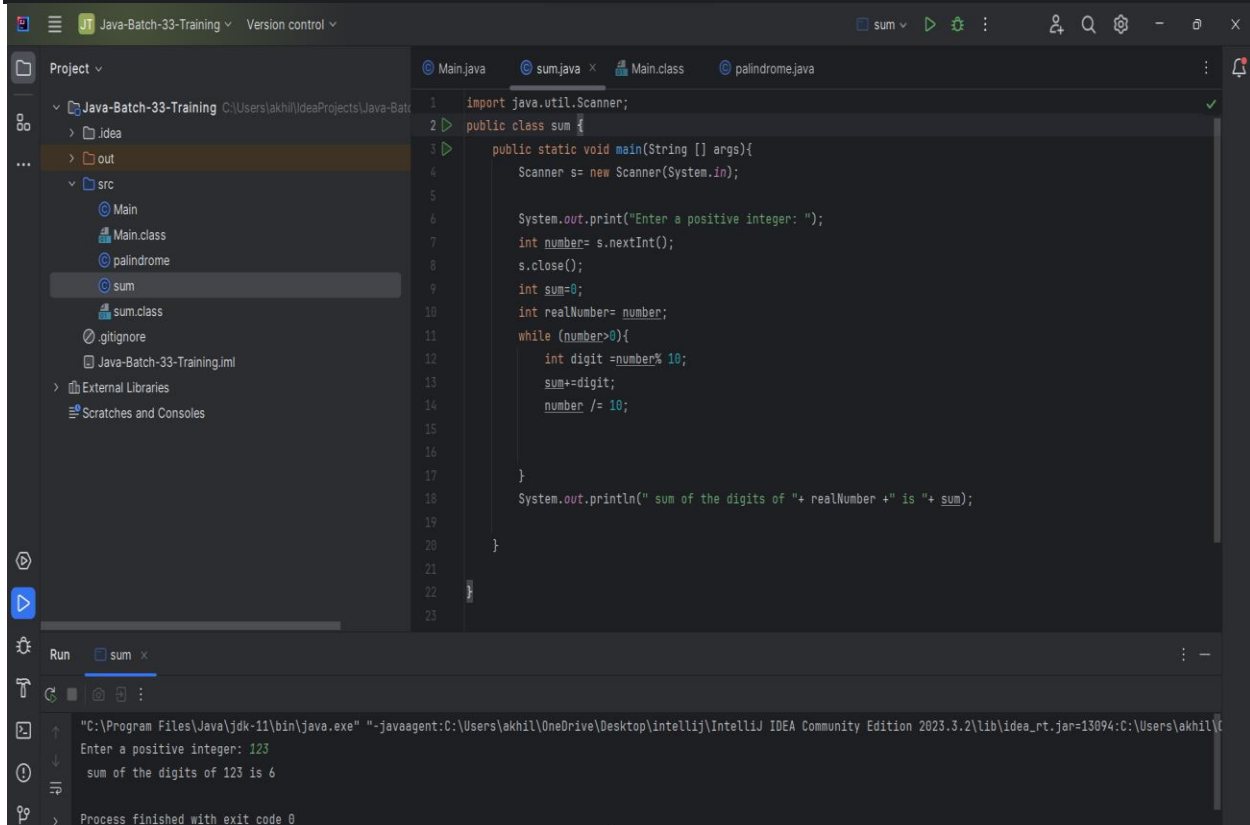
- * Here `public class main` refers to the class name "main".
 - Here we can see `public` so it can be used outside of the class to. We do have `public`, `private` and `protected`.
- * `public static void main` refers to the main method.
- * `System.out.print(i)` denotes print the statement in the console.
- * Here we use `for` loop and integer `i` as we can see `i` is initialized to value 1 and it continues until it equal or less than to 5. and we can see the incrementation of `i` i.e., `i++`.
- * So here we can print the `i` values.

3).sum:

```
import java.util.Scanner;
public class sum {
    public static void main(String [] args){
        Scanner s= new Scanner(System.in);

        System.out.print("Enter a positive integer: ");
        int number= s.nextInt();
        s.close();
        int sum=0;
        int realNumber= number;
        while (number>0){
            int digit =number% 10;
            sum+=digit;
            number /= 10;

        }
        System.out.println(" sum of the digits of "+ realNumber +" is "+
sum);
    }
}
```



4).palindrome:

```
import java.util.Scanner;
public class palindrome {
    public static void main (String[]args){
        Scanner s = new Scanner(System.in);
        System.out.print(" Enter a string:");
        String input= s.nextLine();
        s.close();
        if (isPalindrome(input)) {
            System.out.println("It's a palindrome!");
        } else {
            System.out.println("It's not a palindrome.");
        }
    }

    static boolean isPalindrome(String str) {
        str = str.toLowerCase().replaceAll("[^a-zA-Z0-9]", "");
        int left = 0;
        int right = str.length() - 1;

        while (left < right) {
            if (str.charAt(left) != str.charAt(right)) {
                return false;
            }
            left++;
            right--;
        }
        return true;
    }
}
```

