CHAPTER 5: USER INPUT

5.1 Creating a Scanner

The Scanner is a class which is used to get user input, and it is found in the java.util package. Whenever, we shall take inputs from the user, we have to import this package before starting the class. This is how we import the Scanner class:

```
import java.util.Scanner; // Import the Scanner class
```

Now, inside the class we have to create an object of the Scanner class, so that we can use all its properties. You will not understand the process of creating an object or its purposes now, as it is a concept of Object-Oriented Programming. For now, just assume that the following line is necessary for taking user input. Using the variable sc we can now take different types of user inputs. The **System**

```
Scanner sc = new Scanner(System.in); // Creating a Scanner
```

5.2 Inputting Different Datatypes

After taking user inputs, we have to assign those inputs in variables. While declaring variables, we have to specify its datatype. Therefore, while reading user inputs, we must also specify what kind of input we are reading. The reading method will be different for each kind of input.

Method	Datatype
nextBoolean()	Boolean
nextByte()	Byte
nextShort()	Short
nextLong()	Long
nextInt()	Integer
nextFloat()	Float
nextDouble()	Double
nextLine()	String

5.3 Code Examples

Questions	Codes	Input(s)	Output(s)

Take a float number from the user and print it.	import java.util.Scanner;
	public class Main {
	public static void main(String[] args) {
	Scanner sc = new Scanner(System.in);
	float num= sc.nextFloat();
	System.out.println(num);
	}
	}
		5.5	5.5

<table>
<tr>
<td>Take the name (String), the age (int) and the salary (double) from the user and print these.</td>
<td>

```
import java.util.Scanner;

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

    System.out.println("Enter name, age and
salary:");
    String name = sc.nextLine();
    int age = sc.nextInt();
    double salary = sc.nextDouble();

    System.out.println("Name: " + name);
    System.out.println("Age: " + age);
    System.out.println("Salary: " + salary);
  }
}
```

</td>
<td>Sami
23
1200.5</td>
<td>Enter name, age and salary:
Name: Sami
Age: 23
Salary: 1200.5</td>
</tr>
<tr>
<td>Take a number from the user and see if it is divisible by both 3 and 7. If yes, print “Yes”, otherwise, print “No”.</td>
<td>

```
import java.util.Scanner;
class Main {
    public static void main(String[] args) {
                        Scanner sc = new
Scanner(System.in);
        int num= sc.nextInt(); //integer input
        if (num%3==0 && num%7==0){
            System.out.println("Yes");
        }else{
            System.out.println("No");
        }
    }
}
```

</td>
<td>21</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
<td>No</td>
</tr>
<tr>
<td>Take two Strings from the user, merge them and print the merged strings.</td>
<td>

```
import java.util.Scanner;
class NumberChecker {
    public static void main(String[] args) {
                        Scanner sc = new
Scanner(System.in);
        String s1= sc.nextLine();
        String s2= sc.nextLine();
        System.out.println(s1+s2);
    }
}
```

</td>
<td>Hello
Darknes
s</td>
<td>HelloDarkne
ss</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5
7</td>
<td>57</td>
</tr>
</table>

5.4 Worksheet

A. Write a program that takes input of the user's last name. Then prints it back as shown in the examples below.

Sample Input	Sample Output
John	This user's last name is John.
Rahman	This user's last name is Rahman.

B. Write a Java program that reads two integers from the user and prints the sum, difference, product and the average.

Sample Input	Sample Output
10 12	Sum: 22 Difference: 2 Product: 120.0 Average: 11.0
5 -2	Sum: 3 Difference: 7 Product: -10.0 Average: 1.5

C. Write a Java program that reads the radius of a circle and prints the area and circumference of the circle as shown in the examples below.

Sample Input	Sample Output
5	Area: 78.54 Circumference: 31.42
12	Area: 452.38 Circumference: 75.39

D. Write a program that takes a floating number as an input and prints the square of the number.

Sample Input	Sample Output
5.0	25.0
-4	16.0

E. Write a program that reads two **strings** from the user and then prints their sum.

Sample Input	Sample Output
32 10	Sum: 42
-2 12	Sum: 10