

Name: Shaikh Salif Aminuddin

CLASS: S2 **ROLL NO:** 2201094

EXPERIMENT NO: 2

AIM: Program on accepting input through keyboard.

THEORY: **BufferedReader Class** The `BufferedReader` class of Java is used to read the stream of characters from the specified source (character-input stream). The constructor of this class accepts an `InputStream` object as a parameter. This class provides a method named `read()` and `readLine()` which reads and returns the character and next line from the source (respectively) and returns them.

- Instantiate an `InputStreamReader` class bypassing your `InputStream` object as a parameter.
- Then, we have to create a `BufferedReader`, bypassing the above obtained `InputStreamReader` object as a parameter.
- Now, read data from the current reader as `String` using the `readLine()` or `read()` method.
- **Scanner Class** `Scanner` is a class in `java.util` package used for obtaining the input of the primitive types like `int`, `double`, etc. and strings. It is the easiest way to read input in a Java program, though not very efficient if you want an input method for scenarios where time is a constraint like in competitive programming.
- To create an object of `Scanner` class, we usually pass the predefined object `System.in`, which represents the standard input stream. We may pass an object of class `File` if we want to read input from a file.
- To read numerical values of a certain data type `XYZ`, the function to use is `nextXYZ()`. For example, to read a value of type `short`, we can use `nextShort()`
- To read strings, we use `nextLine()`. • To read a single character, we use `next().charAt(0)`. `next()` function returns the next token/word in the input as a string and `charAt(0)` function returns the first character in that string.

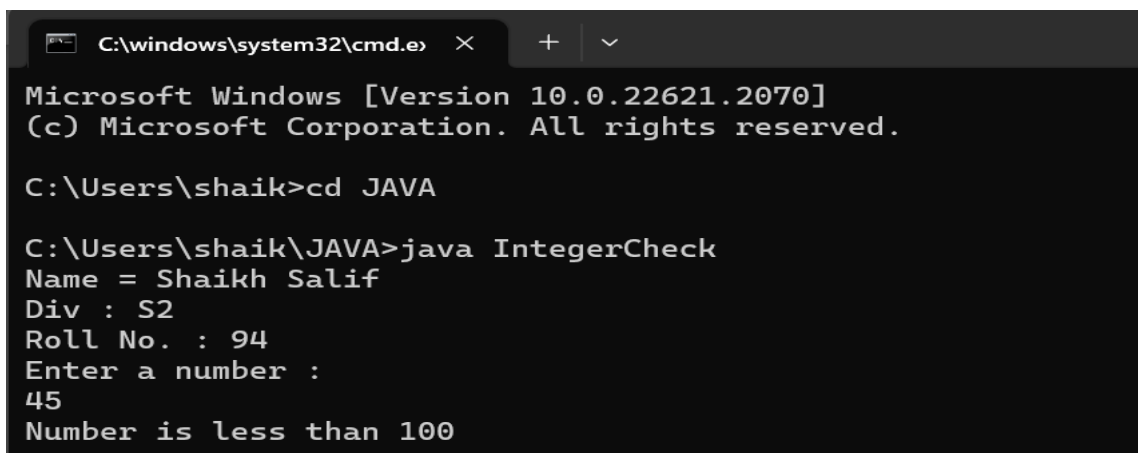
CODE-01:

1. WAP to check if an integer (Accepted from user via BufferedReader Class) is atwo-digit number or not.

```
import java.io.*;

class IntegerCheck {
    public static void main(String args[]) throws IOException
    {
        System.out.println("Name = Shaikh Salif\nDiv : S2\nRoll No. : 94");
        BufferedReader reader =new BufferedReader(new
        InputStreamReader(System.in));
        System.out.println("Enter a number : ");
        int number = Integer.parseInt(reader.readLine());
        int i=number;
        int j=0;
        while(i>0) {
            i=i/10;
            j++;
        }
        if(j<=2)
        {
            System.out.println("Number is less than 100");
        }
        else {
            System.out.println("Number is greater than 100");
        }
    }
}
```

OUTPUT:



```
C:\windows\system32\cmd.exe X + v
Microsoft Windows [Version 10.0.22621.2070]
(c) Microsoft Corporation. All rights reserved.

C:\Users\shaik>cd JAVA

C:\Users\shaik\JAVA>java IntegerCheck
Name = Shaikh Salif
Div : S2
Roll No. : 94
Enter a number :
45
Number is less than 100
```

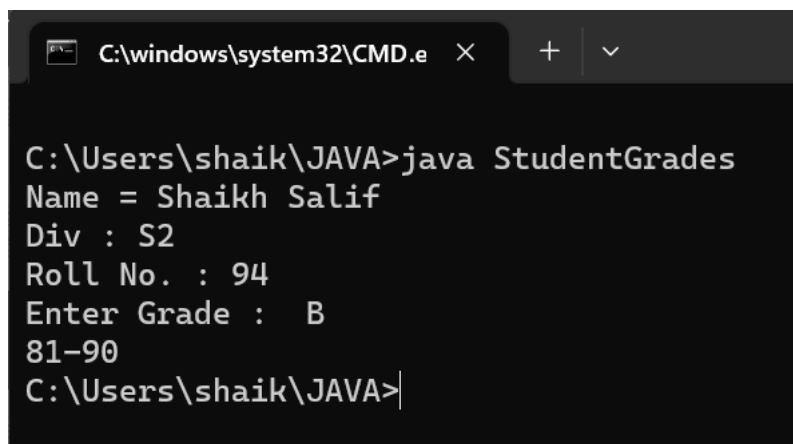
CODE-02: WAP to print the Percentage range of a student as per following criteria for the grade accepted via Scanner Class.

```
import java.util.Scanner;

class StudentGrades {public static void main(String[] args)
{
    System.out.println("Name = Shaikh Salif\nDiv : S2\nRoll No. : 94");
    Scanner sc= new Scanner(System.in);
    System.out.print("Enter Grade : ");
    char grade = sc.next().charAt(0);
    switch(grade) {
        case 'A':    System.out.print("91-100");
                     break;
        case 'B':    System.out.print("81-90");
                     break;
        case 'C':    System.out.print("71-80");
                     break;
        case 'D':    System.out.print("61-70");
                     break;
        case 'F':    System.out.print("0-60");
                     break;
    }
}
```

Percentae	Grade0-60
0-60	F
61-70	D
71-80	C
81-90	B
91-100	A

OUTPUT:



```
C:\windows\system32\CMD.e  X  +  v

C:\Users\shaik\JAVA>java StudentGrades
Name = Shaikh Salif
Div : S2
Roll No. : 94
Enter Grade :  B
81-90
C:\Users\shaik\JAVA>
```

Conclusion: Basic program in JAVA by taking input from user is successfully implemented in above two programs as illustrated.