Experiment No.2
Accepting Input Through Keyboard
Date of Performance:
Date of Submission:

Aim: To apply basic programing for accepting input through keyboard.

Objective: To use the facility of java to read data from the keyboard for any program

Theory:

Java brings various Streams with its I/O package that helps the user perform all the Java inputoutput operations. These streams support all types of objects, data types, characters, files, etc. to fully execute the I/O operations. Input in Java can be with certain methods mentioned below in the article.

Methods to Take Input in Java

There are two ways by which we can take Java input from the user or from a file

1. BufferedReader Class
2. Scanner Class

Using BufferedReader Class for String Input In Java

It is a simple class that is used to read a sequence of characters. It has a simple function that reads a character another read which reads, an array of characters, and a readLine() function which reads a line.

InputStreamReader() is a function that converts the input stream of bytes into a stream of characters so that it can be read as BufferedReader expects a stream of characters.

BufferedReader can throw checked Exceptions.

Using Scanner Class for Taking Input in Java

It is an advanced version of BufferedReader which was added in later versions of Java. The scanner can read formatted input. It has different functions for different types of data types.

The scanner is much easier to read as we don't have to write throws as there is no exception thrown by it.

It was added in later versions of Java

It contains predefined functions to read an Integer, Character, and other data types as well.

Syntax of Scanner class

Scanner scn = new Scanner(System.in);

Code:

BufferedReader class:

```
import
java.io.BufferedReader;
import
java.io.InputStreamReade
r;
public class Buffered
{
public static void main(String[] args) throws Exception
 {
System.out.print("Enter a Number:");
BufferedReader br = new BufferedReader(new
InputStreamReader(System.in)); int a =
Integer.parseInt(br.readLine());  System.out.println(a);
```

```
 }

}
```

Scanner Class:

```
import java.util.*;

public class

ScannerExample {

public static void

main(String args[]){

        Scanner in = new Scanner(System.in);

        System.out.print("Enter your name: ");

        String name = in.nextLine();

        System.out.println("Name is: " + name);

        in.close();

        }

} .
```

Conclusion: BufferedReader and Scanner classes are commonly used to accept user input. The BufferedReader class provides efficient reading of text from a character-input stream, while the Scanner class offers more advanced parsing and tokenizing capabilities. Both classes allow us to interact with the user by reading input from the console, making it easier to create interactive programs. By using these classes, we can accept and process user input in a variety of ways to enhance the functionality and interactivity of our Java applications.