The Government of the Russian Federation

The Federal State Autonomous Institution of Higher Education "National Research University - Higher School of Economics"

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Faculty of Information Technology and Computer Engineering
Department of Computer Systems and Networks

Course title: Network computing

Practical training № 6. Java - Streams, Files and I/O.

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Practical training № 6. Java - Streams, Files and I/O.

Goal (цель): Create streams and give the description of the used streams, I/O.
Variant: (вариант): no number.

Listings (листинги) **and Figures** (рисунки):

MyStringInput.java

```
1  import java.io.*;
2  class MyStringInput {
3
4      public static void main(String[] args) throws IOException {
5      String str="Ваш заказ: ";
6      String s;
7      int count=0;
8      BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
9      System.out.println("Что-то желаете?");
10     s=br.readLine();
11     while(!s.equalsIgnoreCase("Нет")) {
12     count++;
13     str=str+"\n"+count+": "+s.toLowerCase();
14     System.out.println(str+"\n Еще что-то?");
15     s=br.readLine();    }
16     System.out.println("Спасибо! Ваш заказ принят!");
17     }
18
19 }
20
```

Problems @ Javadoc Declaration Console

```
<terminated> MyStringInput [Java Application] C:\Program Files\Java\jdk-12.0.1\bin\javaw.exe (5 июн. 2019 г., 11:56:44)
Что-то желаете?
Суши
Ваш заказ:
1: суши
 Еще что-то?
Пепси
Ваш заказ:
1: суши
2: пепси
 Еще что-то?
чизбургер
Ваш заказ:
1: суши
2: пепси
3: чизбургер
 Еще что-то?
пицца
Ваш заказ:
1: суши
2: пепси
3: чизбургер
4: пицца
 Еще что-то?
Нет
Спасибо! Ваш заказ принят!
```

Listing:

```
import java.io.*;
class MyStringInput {

	public static void main(String[] args) throws IOException {
	String str="Ваш заказ: ";
	String s;
	int count=0;
	BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
	System.out.println("Что-то желаете?");
	s=br.readLine();
	while(!s.equalsIgnoreCase("Нет")) {
	count++;
	str=str+"\n"+count+": "+s.toLowerCase();
	System.out.println(str+"\n Еще что-то?");
	s=br.readLine();    }
	System.out.println("Спасибо! Ваш заказ принят!");
	}

}
```

Conclusions (выводы**):**

The **java.io** package contains nearly every class you might ever need to perform input and output (I/O) in Java. All these streams represent an input source and an output destination. The stream in the java.io package supports many data such as primitives, Object, localized characters, etc.

The program's main method is declared as throwing an **IOExceptio**n. This exception is thrown by the read () method used in the main () method and in the main () class it is not processed. Therefore, in the signature of the main () method there is a throws IOException statement.

This particular program simulates the process of receiving an order from a customer in a café. The initial 'welcome' phrase is displayed by the command: **System.out.println("Что-то желаете?")**. In response, the user can enter the name of the order or the word No. With the **s = br.readLine ()** command, the text entered by the user is read and entered as a value into the variable s of the String class. This uses the br object of the buffered character input stream. It was created by the command: **BufferedReader br = new BufferedReader (new InputStreamReader (System.in))**.

The while statement tests the condition! **S.equalsIgnoreCase ("No").** If the user entered a phrase other than No (case-insensitive), the value The count variable, which numbers the order items, is incremented by one and a new order item is added to the str line. In particular, the command **str = str + "\n "+ count +": "+ s.toLowerCase ()** to an already existing text value str a symbol is added to proceed with a new line, an order number, and also the order itself. And, the order is written in lower case characters (lower case letters), for which the **toLowerCase ()** method is called from the s object. After that, the **System.out.println command (str + "\ n Something else?")** displays the next query and the **s = br.readLine ()** command reads user input. So, it goes on until the user enters the word No. At the end of the

program, the phrase is displayed: "Thank you! Your order is accepted!" The result of the program may be as it shown in figure (in bold, user input is highlighted).

References:

- ‘RestOrder’ project files
- Learning materials in LMS