CSE 215: Programming Language II Lab
Lab – 1
Welcome to JAVA

Objective:
- To learn to set up the work environment
- To write some test programs
- To familiarize with different settings of Netbeans

Instructions:

1. To execute Java program, you need JRE (Java Runtime Environment) to be installed in your system.

2. To execute Java code, you need JDK (Java Development Kit) to be installed.

3. When you install JDK - JRE comes as bundled.

4. To write Java code, you can use any text editor like Notepad or sublime text. However, in that case you will need to compile the code from command prompt and execute it from there. That's where IDE (Integrated Development Environment) comes in handy. From an IDE you can write code, compile and execute it. For this course we will be using Netbeans as our IDE.

5. Netbeans will use JDK to compile and execute our code. So first, we will install JDK.

6. Go to this URL: http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html. Accept license agreement and download appropriate JDK version.

7. Once downloaded, run it to begin the installation procedure. The process may take a while depending on your system specification.

8. Now go to this URL: https://netbeans.org/downloads/
Choose 32/64 bit version based on your system. Once downloaded, install and run Netbeans. You are now ready to write some code.

Printing out something to the console:

```
public class FirstJavaProgram {
        public static void main(String[] args) {
            System.out.println("Hello, world!");
        }
    }
```

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You can comment out a line by appending // to the beginning of it.

Taking input from the user:
1. You must import and instantiate the Scanner class under java.util package.
2. You must use the appropriate methods under the Scanner object corresponding to the datatype to take input from the user.

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```java
public class InputTest {
    public static void main(String[] args) {
        // System.in refers to the input stream in the console
        Scanner input = new Scanner(System.in);

        System.out.println("Please enter an integer: ");
        int userGivenInteger = input.nextInt();
        input.nextLine();    // consume the newline character
        System.out.println(userGivenInteger);

        System.out.println("Please enter any string: ");
        String userGivenString = input.nextLine();
        System.out.println(userGivenString);

        input.close();
    }
}
```

Things to note:
1. Method and class names are case sensitive.
2. The java file name and the class name must match exactly, including case.

Task:
1. Write a program that prints your name, age and department in console.
2. Write a program that prints from 1 to 10.
3. Write a program that determines if an integer is odd or even.