NRP : 17111051

Nama : M Irfan Syarifuddin

Kelas : B1

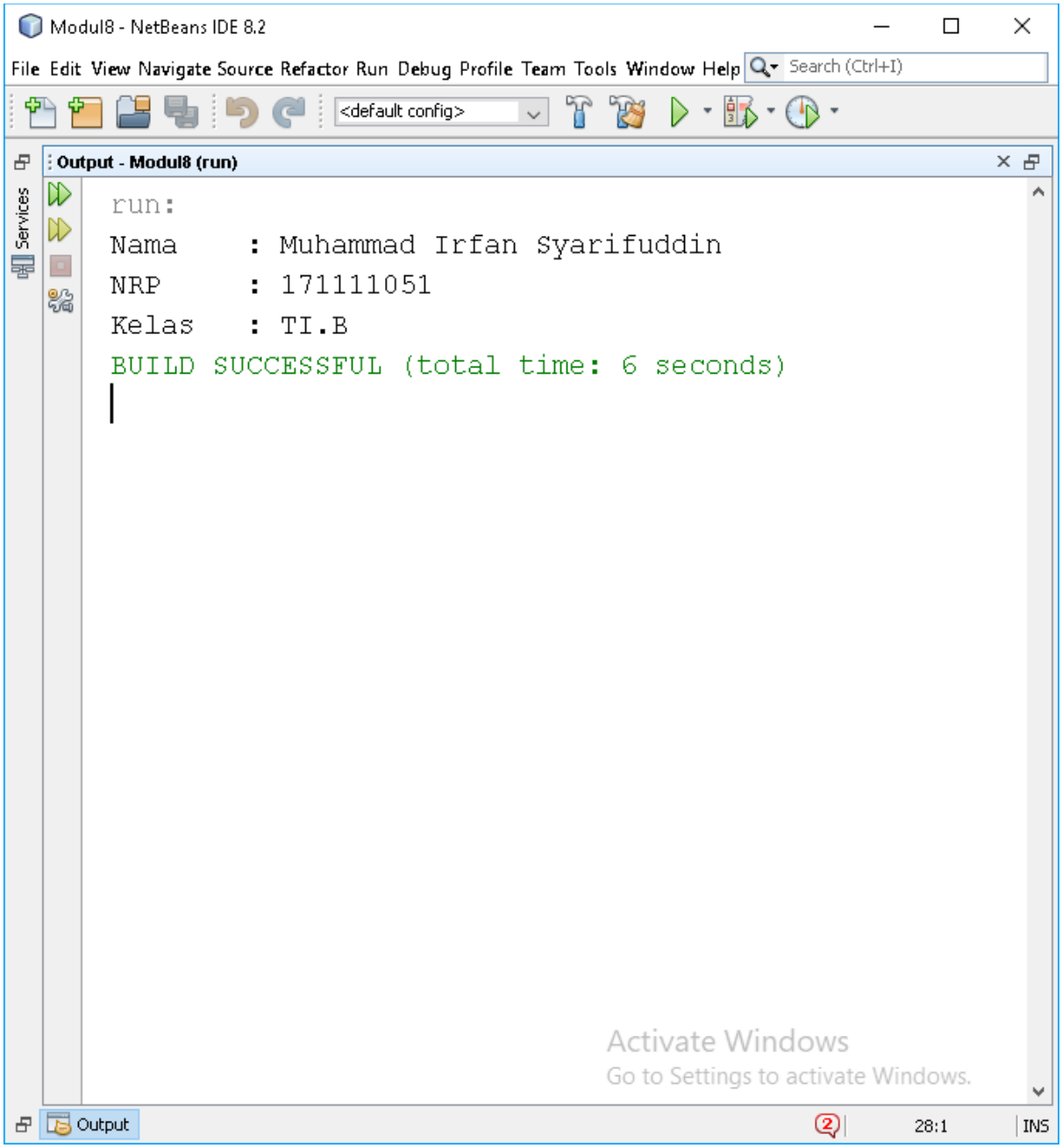
Aktivitas Dan LatihanModul 8 – PRAKTIKUM PEMROGRAMAN DASAR 1

1. Buatlah sebuah function sederhana untuk menampilkan nama, NRP, dan kelas dengan menggunakan void function.

Sript:

```
1.  /*
2.   * To change this license header, choose License Headers in Project Properties.
3.   * To change this template file, choose Tools | Templates
4.   * and open the template in the editor.
5.   */
6.  package modul8;
7.
8.  /**
9.   *
10.  * @author Irfan
11.  */
12. public class Modul8 {
13.
14.    public static void nama(){
15.        String nama ="Muhammad Irfan Syarifuddin";
16.        String kelas = "TI.B";
17.        int nrp = 171111051;
18.        System.out.println("Nama \t: "+nama);
19.        System.out.println("NRP \t: "+nrp);
20.        System.out.println("Kelas \t: "+ kelas);
21.    }
22.
23.     public static void main(String[] args) {
24.         // TODO code application logic here
25.         nama();
26.     }
27. }
```

Screenshot:

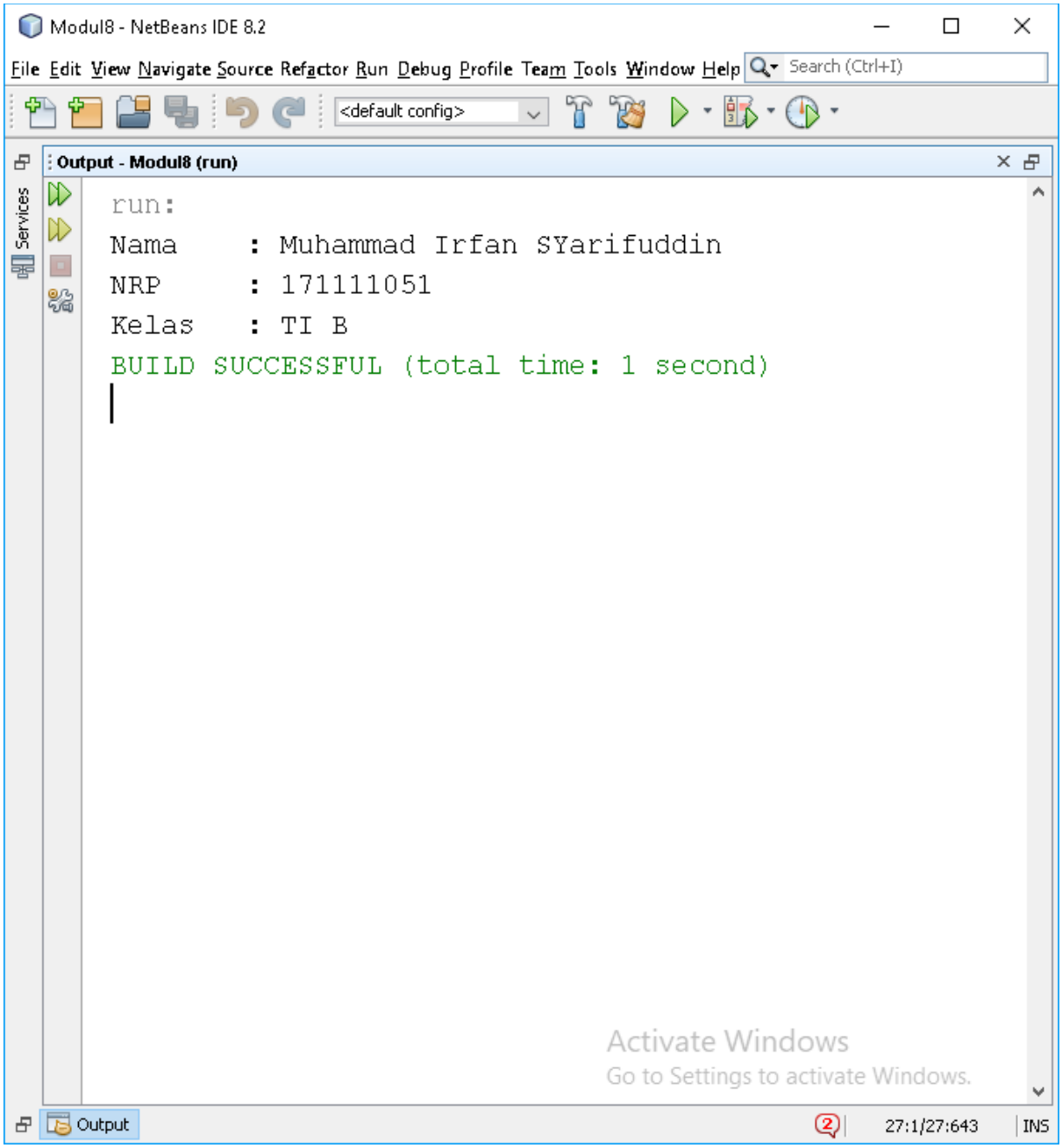

Modul8 - NetBeans IDE 8.2
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
Search (Ctrl+I)
<default config>
Output - Modul8 (run)
Services
run:
Nama : Muhammad Irfan Syarifuddin
NRP : 171111051
Kelas : TI.B
BUILD SUCCESSFUL (total time: 6 seconds)
Activate Windows
Go to Settings to activate Windows.
Output
28:1
INS

2. Modifikasi function yang telah Anda buat pada soal nomor 1 dengan nama, NRP, dan kelas tersebut diinputkan di main function dan menjadi parameter pemanggilnya.

Script :

```
1.   * To change this license header, choose License Headers in Project Properties.
2.   * To change this template file, choose Tools | Templates
3.   * and open the template in the editor.
4.   */
5.  package modul8;
6.
7.  /**
8.   *
9.   * @author Irfan
10.  */
11. public class Modul8yanglain {
12.
13.    public static void nama(String nama, int nrp, String kelas){
14.
15.        System.out.println("Nama \t: "+nama);
16.        System.out.println("NRP \t: "+nrp);
17.        System.out.println("Kelas \t: "+ kelas);
18.    }
19.
20.     public static void main(String[] args) {
21.         // TODO code application logic here
22.         nama("Muhammad Irfan SYarifuddin", 171111051, "TI B");
23.     }
24. }
```

Screenshot :

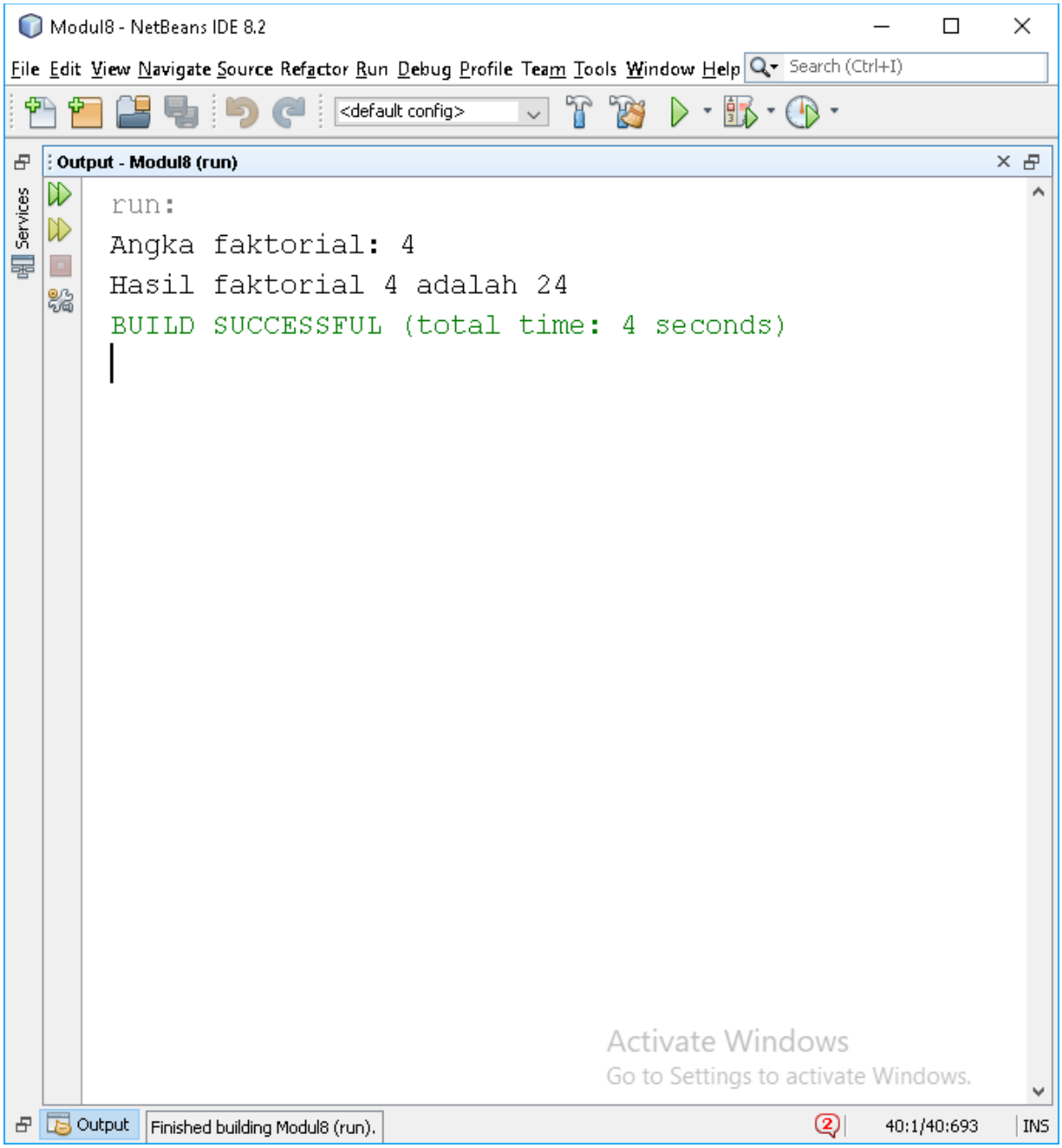

Modul8 - NetBeans IDE 8.2
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
Search (Ctrl+I)
<default config>
Output - Modul8 (run)
Services
run:
Nama : Muhammad Irfan SYarifuddin
NRP : 171111051
Kelas : TI B
BUILD SUCCESSFUL (total time: 1 second)
Activate Windows
Go to Settings to activate Windows.
Output
27:1/27:643
INS

3. Buatlah sebuah function untuk menghitung bilangan faktorial dengan nilai n diinputkan dari keyboard.

Script:

```
1.  /*
2.   * To change this license header, choose License Headers in Project Properties.
3.   * To change this template file, choose Tools | Templates
4.   * and open the template in the editor.
5.   */
6.  package modul8;
7.  import java.util.Scanner;
8.  /**
9.   *
10.  * @author Irfan
11.  */
12. public class Modul8yanglain1 {
13.     public static void main(String[] args) {
14.
15.         System.out.print("Angka faktorial: ");
16.
17.         Scanner sc = new Scanner(System.in);
18.         int n = sc.nextInt();
19.
20.         faktorial(n);
21.
22.     }
23.
24.     static void faktorial(int nn) {
25.
26.         int hitungan, faktor = 1;
27.
28.         for ( hitungan = 1; hitungan <= nn; hitungan++) {
29.
30.             faktor = faktor * hitungan;
31.
32.         }
33.
34.         System.out.println("Hasil faktorial "+ nn +" adalah " + faktor);
35.
36.     }
37.
38. }
```

Screenshot :

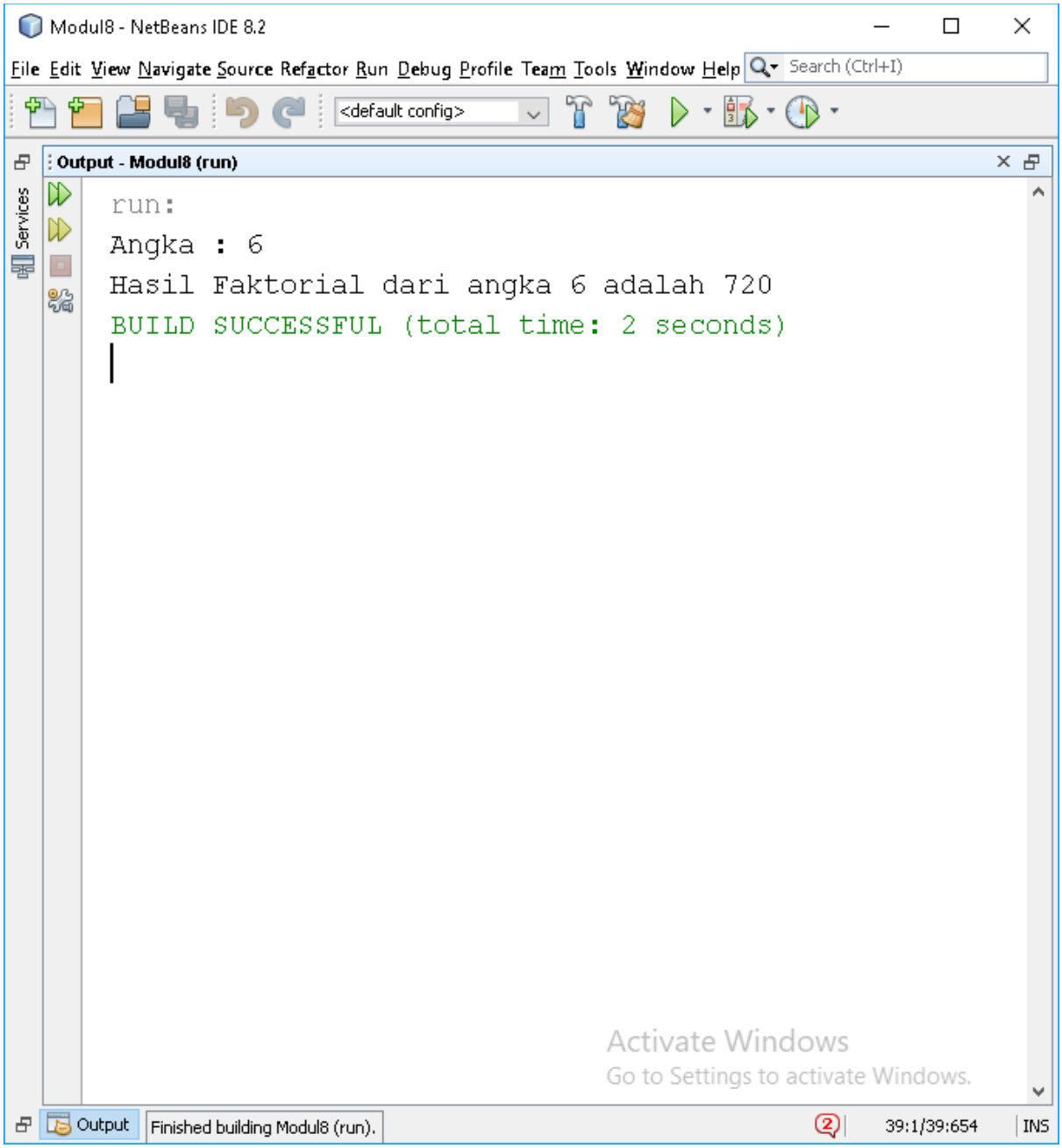

Modul8 - NetBeans IDE 8.2
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
Search (Ctrl+I)
<default config>
Output - Modul8 (run)
Services
run:
Angka faktorial: 4
Hasil faktorial 4 adalah 24
BUILD SUCCESSFUL (total time: 4 seconds)
Activate Windows
Go to Settings to activate Windows.
Output
Finished building Modul8 (run).
40:1/40:693
INS

4. Buatlah sebuah function yang sama seperti pada soal nomor 3, namun function bekerja secara rekursif.

Script :

```
1.  /*
2.   * To change this license header, choose License Headers in Project Properties.
3.   * To change this template file, choose Tools | Templates
4.   * and open the template in the editor.
5.   */
6.  package modul8;
7.  import java.util.Scanner;
8.  /**
9.   *
10.  * @author Irfan
11.  */
12. public class Modul8yanglain2 {
13.  static int showFak(int n) {
14.
15.         if (n == 1){
16.
17.             return 1;
18.
19.         } else {
20.
21.             return( n * showFak(n-1) );
22.
23.         }
24.
25.     }
26.
27.     public static void main(String[] args) {
28.
29.         Scanner sc = new Scanner(System.in);
30.         System.out.print("Angka : ");
31.         int angkaFak = sc.nextInt();
32.
33.         System.out.println("Hasil Faktorial dari angka "+angkaFak+" adalah " + show
    Fak(angkaFak));
34.
35.     }
36.
37. }
```

Screenshot :


Modul8 - NetBeans IDE 8.2
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
Search (Ctrl+I)
<default config>
Output - Modul8 (run)
Services
run:
Angka : 6
Hasil Faktorial dari angka 6 adalah 720
BUILD SUCCESSFUL (total time: 2 seconds)
Activate Windows
Go to Settings to activate Windows.
Output
Finished building Modul8 (run).
39:1/39:654
INS

Latihan

Script:

```
1.  /*
2.   * To change this license header, choose License Headers in Project Properties.
3.   * To change this template file, choose Tools | Templates
4.   * and open the template in the editor.
5.   */
6.  package modul8;
7.  import java.util.Scanner;
8.  /**
9.   *
10.  * @author Irfan
11.  */
12. public class Tugas8 {
13.     static double faktorial (double angka){
14.         double hasil =-1;
15.                 for (double rpt = angka; rpt>1; rpt-- ){
16.                     hasil= hasil-rpt;
17.                 }
18.                     return hasil;
19.     }
20.
21. public static void main (String []args){
22. Scanner sc =new Scanner (System.in);
23. double jumlah;
24. System.out.print("Masukkan Angka : ");
25. double input =sc.nextInt();
26. System.out.println(input+ "/"+input+"!");
27. jumlah = input/faktorial(input);
28. System.out.println ("Hasil \t\t: "+ jumlah);
29. }
30. }
```

Screenshot: