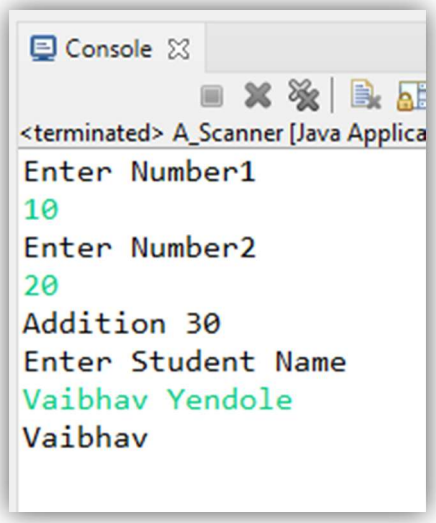
Logic Programming Examples

```java
package LogicalProgramming;
import java.util.Scanner;

public class A_Scanner_AcceptInputFromUser
{
	public static void main(String[] args)
	{
		Scanner scan = new Scanner(System.in);

		//For Numbers--> scan.nextInt()
		System.out.println("Enter Number1");
		int num1 = scan.nextInt();

		System.out.println("Enter Number2");
		int num2 = scan.nextInt();

		System.out.println("Addition "+(num1+num2));

		//For String -->
		System.out.println("Enter Student Name");
		String name = scan.next();
		System.out.println(name);

	}                                   //Note : will print only one name
}
```



```java
package LogicalProgramming;

import java.util.Arrays;

public class B_Compare_Two_IntArray
 {
	public static void main(String[] args)
	{
		int ar1[]= {10,20,30};
		int ar2[]= {40,50,60};
		int ar3[]= {40,50,60};

		//Compare array1 and array2
		System.out.println(Arrays.equals(ar1, ar2));	//false

		//Compare array1 and array3
		System.out.println(Arrays.equals(ar1, ar3));	//false

		//Compare array2 and array3
		System.out.println(Arrays.equals(ar2, ar3));	//true
	}
}
```

```java
package LogicalProgramming;
public class C_Multiply_2_Num_Without_Multiplication {
	public static void main(String[] args) {

		int num1 = 5;
		int num2 = 7;

		int sum=0;
		for(int i=1; i<=num2; i++)
		{
			sum = sum+num1;
		}
		System.out.println(sum);    //35
	}
}
//Note : If you mention num2 in for then use num1 inside and Vice Versa
```

```java
package LogicalProgramming;
public class D_reverse_String {
	public static void main(String[] args) {

		String org = "ABCD";
		String rev = "";

		for(int i =org.length()-1; i>=0; i--)
		{
			rev = rev + org.charAt(i);
		}

		System.out.println("Orginal String = "+org);
		System.out.println("Reverse String = "+rev);
	}
}
```

```
Console
<terminated> D_reverse_String [Java Applic
Orginal String = ABCD
Reverse String = DCBA
```

```java
package LogicalProgramming;
import java.util.Scanner;  //Scanner ; java.util // scanner(inputStream Source)

public class E_Find_EvenOdd_No {
	public static void main(String[] args) {
		Scanner scan = new Scanner(System.in);
		System.out.println("Enter Number");
		int num = scan.nextInt();

		if( num % 2 == 0)
		{
			System.out.println("Entered No is Even");
		}
		else
		{
			System.out.println("Entered No is Odd");
		}
	}
}
```

```
Console
<terminated> E_Find_EvenOdd_No [
Enter Number
21
Entered No is Odd
```

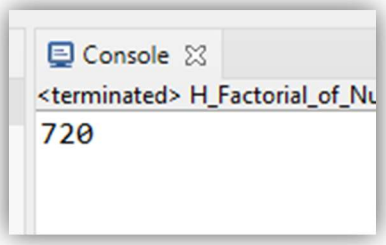
```java
package LogicalProgramming;

public class F_Palindrome_String {
	public static void main(String[] args) {
// Palindrome : a word, phrase, or sequence that reads the same backwards as
forwards, e.g. madam or nurses run, eve, eye, ana, anna

		String org = "eye";		// Eye and eye are different
		String rev = "";

		for(int i=org.length()-1; i>=0; i --)
		{
			rev = rev + org.charAt(i);
		}
	System.out.println("Orginal String :"+org);
	System.out.println("Reverse String :"+rev);
	if(org.equals(rev))
	{
		System.out.println("Given String is a Pallindrome");
	}
	else
	{
		System.out.println("Given String is Not a Pallindrome");
	}
	}
}
```

```
Console
<terminated> F_Palindrome_String [Java Applicatior
Orginal String :eye
Reverse String :eye
Given String is a Pallindrome
```

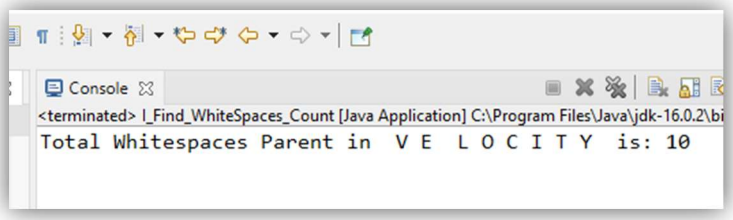
```java
package LogicalProgramming;

public class G_ArmStrong_Number {
	public static void main(String[] args) {
	//Armstrong number is a number that is equal to the sum of cubes of its
digits. For example 0, 1, 153, 370, 371 and 407 are the Armstrong numbers

		int orgNum = 371;
		int sum = 0;

		for(int i=orgNum; i > 0; i = i/10)
		{
			int rem = i % 10;
			sum = sum + (rem*rem*rem);
		}

	if(orgNum==sum)
	{
		System.out.println("Given Number "+orgNum+" is Armstrong Number");
	}
	else
	{
		System.out.println("Given Number "+orgNum+" is NOT Armstrong Number");
		}
	}
}
```

```
Console
<terminated> G_ArmStrong_Number [Java Application] C:\Progr
Given Number 371 is Armstrong Number
```

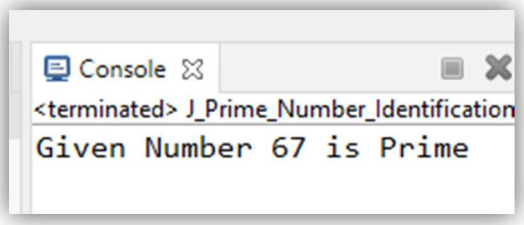
```java
package LogicalProgramming;
public class H_Factorial_of_Number {
	public static void main(String[] args) {
		int num = 6;
		int fact = 1;

		for(int i=num; i>=1; i--)
		{
			fact = fact*i;
		}
	System.out.println(fact);
	}}
```




```java
package LogicalProgramming;
public class I_Find_WhiteSpaces_Count
{
	public static void main(String[] args)
	{

		String name = " V E  L O C I T Y ";
		int count =0;    //10 White Spaces

		for(int i=0; i<=name.length()-1; i++)
		{
			char str = name.charAt(i);
			if(str==' ')
			{
				count++;
			}
		}
		System.out.println("Total Whitespaces Parent in "+name+" is: "+count);
	}}
```




```java
package LogicalProgramming;      //Prime Number : No. Divisible by 1 and Itself.
public class J_Prime_Number_Identification{
public static void main(String[] args) {
	// E.g 2,3,5, 7,11,13,17,23,29, 31,37,41,43,47,53,59,91,67,71,73,79,83,9,97
	int num = 67;
	int count = 0;
	for(int i = 2; i<num; i++)
	{
		if(num % i == 0)
		{
			count++;
			break;
		}
	}
	if(count == 1)
	{
		System.out.println("Given Number "+num+" is Non-Prime");
	}
	else
	{
		System.out.println("Given Number "+num+" is Prime");
	}
}}
```

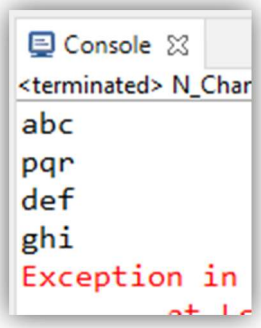


```java
package LogicalProgramming;                                    //Reverse a Number

public class K_Reverse_Number_ByConvert {
	public static void main(String[] args) {

		int OrgNum = 1234;
		String org = Integer.toString(OrgNum);
		String rev="";

		for(int i=org.length()-1; i>=0; i--)
		{
			rev = rev+org.charAt(i);
		}
	int revNum = Integer.parseInt(rev);
	System.out.println(revNum);

	}
}
```

```java
package LogicalProgramming;                                    //Reverse a Number

public class K_Reverse_Number_ByConvert {
	public static void main(String[] args) {

		int OrgNum = 1234;
		String org = Integer.toString(OrgNum);
		String rev="";

		for(int i=org.length()-1; i>=0; i--)
		{
			rev = rev+org.charAt(i);
		}
		int revNum = Integer.parseInt(rev);
		System.out.println(revNum);

	}
}
```

```java
package LogicalProgramming;                                    //Reverse a Number

public class K_Reverse_Number2 {
	public static void main(String[] args) {
		int num = 12345;
		int revNum = 0;

		for (int i = num; i>0; i = i/10)
		{
			int rem = i % 10;
			revNum = revNum*10+ rem;
		}
		System.out.println(revNum);
	}
}
```

```java
package LogicalProgramming;                                    //Replace a Character
public class L_Replace_Remove_special_Characters {
	public static void main(String[] args)
	{
		String name = "va@ibhav";
		String CorrectName = name.replace("@", "");
		System.out.println(CorrectName);
	}
}-------------------------------------------------------------------------------

package LogicalProgramming;                                //Replace All Special Characters
public class M_Replace_Multiple_Special_Character {
	public static void main(String[] args) {

		String name = "V@ai@bh#av";
		String CorrectName = name.replaceAll("[^a-zA-Z0-9]", "");
		System.out.println(CorrectName);

		//System.out.println(str.replace("@", "").replace("#", ""));
	}
}}------------------------------------------------------------------------------

package LogicalProgramming;
public class N_ChangeOrder_ofString {
	public static void main(String[] args) {
		String name = "abc pqr def ghi";
		String[] ar = name.split(" "); //(abc=0; pqr=1; def=2...)

		for(int i=0; i<=ar.length-1;i++)
		{
			if(i%2==0) //For Sum Number
			{
				String s1 = ar[i];
		ar[i] = reverseString(s1); //reinitialization of String for Even values

			}
		}

		for(int i=0; i<=ar.length; i++)
		{
			System.out.println(ar[i]+" ");
		}
	}

	public static String reverseString(String inp)
	{
		String rev="";
		for(int i=inp.length()-1; i>=0; i--)
		{
			rev = rev+inp.charAt(i);
		}
		return inp;
	}}-------------------------------------------------------------------------
```



```
package LogicalPrograms;

import java.util.HashMap;
import java.util.Set;

public class example14_Count_Reapeating_Char_In_String_Using_Hashmap {
	public static void main(String[] args) {

		String str = "abcaba";

		HashMap<Character, Integer> mp = new HashMap<Character, Integer>();

				//	5<=5
		for (int i = 0; i <= str.length() - 1; i++)
		{                                          //5
			char charValue = str.charAt(i);   //b

			if (mp.containsKey(charValue))   //a-->true
			{
				mp.put(charValue, mp.get(charValue) + 1);    //a  3
			}
			else
			{
				mp.put(charValue, 1);    //c  1
			}
		}


		Set<Character> keys = mp.keySet(); //[a, b, c]

		//print occurence of each char
		for (Character key : keys)
		{
		System.out.println(key +": "+ mp.get(key));  // a : 3  b : 2   c: 1
		}

		//print only duplicate element
		for (Character key : keys)
		{
			if(mp.get(key)>1) {
				System.out.println(key +": "+ mp.get(key));
			}
		}

		//System.out.println("a: "+ mp.get('a'));

	}

}----------------------------------------------------------------------------
```

```
package LogicalPrograms;

import java.util.Collection;
import java.util.HashMap;
import java.util.Set;

public class example15_String_Reapeating_String_In_Para
{
	public static void main(String[] args) {

	String str = "abc abcd abc abcd abc xyz abc abc xyz xyz xyz ab";

	String ar[] = str.split(" "); //[abc abcd abc abcd abc xyz abc abc xyz xyz
xyz ab]

		HashMap<String, Integer> mp = new HashMap<String, Integer>();

		for (int i = 0; i <= ar.length - 1; i++)
		{

			String s1 = ar[i];  //abcd

			if (mp.containsKey(s1))
			{
				mp.put(s1, mp.get(s1) + 1);
			}
			else
			{
				mp.put(s1, 1);
			}

		}

		Set<String> keys = mp.keySet(); // [abc abcd xyz]

		for (String key : keys)
		{
			System.out.println(key + ": " + mp.get(key));
		}

		//Collection<Integer> allValues = mp.values(); //[1 2 3 4]



	}
}----------------------------------------------------------------------------
```

```
package Scroll_Up_Down;

import org.openqa.selenium.By;
import org.openqa.selenium.JavascriptExecutor;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.interactions.Actions;

public class example1_ScrollUpDown {
	public static void main(String[] args) throws InterruptedException {

		System.setProperty("webdriver.chrome.driver",

	"C:\\Users\\sanjay\\Desktop\\Study\\Selenium_Syallabus\\July21A_Selenium_Soft
\\chromedriver_win32 (15)\\chromedriver.exe");
		WebDriver driver = new ChromeDriver();

		driver.get("http://demo.guru99.com/test/guru99home/");
		driver.manage().window().maximize();
		Thread.sleep(2000);

		// down --> 2nd parameter +ve value
		((JavascriptExecutor)driver).executeScript("window.scrollBy(0,1000)");

		Thread.sleep(2000);

		// up --> 2nd parameter -ve value
		((JavascriptExecutor) driver).executeScript("window.scrollBy(0,-500)");


//		// right --> 1st parameter +ve value
//		((JavascriptExecutor) driver).executeScript("window.scrollBy(1000,0)");
//
//		Thread.sleep(3000);
//
//		// left --> 1st parameter -ve value
//		((JavascriptExecutor) driver).executeScript("window.scrollBy(-500,0)");


//	alternate way to sendkeys
//		WebElement UN = driver.findElement(By.xpath(""));
//((JavascriptExecutor)driver).executeScript("arguments[0].value='testuser'", UN);

	}
}----------------------------------------------------------------------------
```

```
package Scroll_Up_Down;

import org.openqa.selenium.By;
import org.openqa.selenium.JavascriptExecutor;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.interactions.Actions;

public class example2_ScrollIntoView {
	public static void main(String[] args) throws InterruptedException {
		System.setProperty("webdriver.chrome.driver",

	"C:\\Users\\sanjay\\Desktop\\Study\\Selenium_Syallabus\\July21A_Selenium_Soft
\\chromedriver_win32 (15)\\chromedriver.exe");
		WebDriver driver = new ChromeDriver();

		driver.get("http://demo.guru99.com/test/guru99home/");
		driver.manage().window().maximize();
		Thread.sleep(2000);

		// Find element by
		WebElement ele = driver.findElement(By.xpath("//a[text()='Facebook']"));
		Thread.sleep(3000);

		// This will scroll the page till the element is found

	((JavascriptExecutor)driver).executeScript("arguments[0].scrollIntoView();",
ele);
	}
}----------------------------------------------------------------------------
```