**Java - Introduction to Programming**

**Lecture 12**

**Strings**

**Declaration**

**String name = "Tony";**

**Taking Input**

**Scanner sc = new Scanner(System.in);**

**String name = sc.next();**

**Concatenation (Joining 2 strings)**

**String firstName = "Tony";**

**String secondName = "Stark";**

**String fullName = firstName + " " + secondName;**

**System.out.println(fullName);**

**Print length of a String**

**String firstName = "Tony";**

**String secondName = "Stark";**

**String fullName = firstName + " " + secondName;**

**System.out.println(fullName.length());**

**Access characters of a string**

**String firstName = "Tony";**

**String secondName = "Stark";**

**String fullName = firstName + " " + secondName;**

**for(int i=0; i<fullName.length(); i++) {**

**System.out.println(fullName.charAt(i));**

**}**

**Compare 2 strings**

**import jdk.internal.jshell.tool.resources.l10n;**

**public class Strings {**

**public static void main(String args[]) {**

**String name1 = "Tony";**

**String name2 = "Tony";**

**if(name1.equals(name2)) {**

**System.out.println("They are the same string");**

**} else {**

**System.out.println("They are different strings");**

**}**

**//DO NOT USE == to check for string equality**

**//Gives correct answer here**

**if(name1 == name2) {**

**System.out.println("They are the same string");**

**} else {**

**System.out.println("They are different strings");**

**}**

**//Gives incorrect answer here**

**if(new String("Tony") == new String("Tony")) {**

**System.out.println("They are the same string");**

**} else {**

**System.out.println("They are different strings");**

**}**

**}**

**}**

**Substring**

The substring of a string is a subpart of it.

public class Strings {

public static void main(String args[]) {

String name = "TonyStark";

System.out.println(name.substring(0, 4));

}

}

**ParseInt Method of Integer class**

**public class Strings {**

**public static void main(String args[]) {**

**String str = "123";**

**int number = Integer.parseInt(str);**

**System.out.println(number);**

**}**

**}**

**ToString Method of String class**

**public class Strings {**

**public static void main(String args[]) {**

**int number = 123;**

**String str = Integer.toString(number);**

**System.out.println(str.length());**

**}**

**}**

**ALWAYS REMEMBER : Java Strings are Immutable.**

**Homework Problems**

1. Take an array of Strings input from the user & find the cumulative (combined) length of all those strings.

import java.util.\*;

public class Strings {

public static void main(String args[]) {

Scanner sc = new Scanner (System.in);

int size = sc.nextInt();

String array[] = new String[size];

int totLength = 0;

for(int i=0; i<size; i++) {

array[i] = sc.next();

totLength += array[i].length();

}

System.out.println(totLength);

}

}

1. Input a string from the user. Create a new string called ‘result’ in which you will replace the letter ‘e’ in the original string with letter ‘i’.

Example :

original = “eabcdef’ ; result = “iabcdif”

Original = “xyz” ; result = “xyz”

import java.util.\*;

public class Strings {

public static void main(String args[]) {

Scanner sc = new Scanner (System.in);

String str = sc.next();

String result = "";

for(int i=0; i<str.length(); i++) {

if(str.charAt(i) == 'e') {

result += 'i';

} else {

result += str.charAt(i);

}

}

System.out.println(result);

}

}

1. Input an email from the user. You have to create a username from the email by deleting the part that comes after ‘@’. Display that username to the user.

Example :

email = “[apnaCollegeJava@gmail.com](mailto:apnacollegeJava@gmail.com)” ; username = “apnaCollegeJava”

email = “[helloWorld123@gmail.com](mailto:helloWorlds123@gmail.com)”; username = “helloWorld123”

import java.util.\*;

public class Strings {

public static void main(String args[]) {

Scanner sc = new Scanner (System.in);

String email = sc.next();

String userName = "";

for(int i=0; i<email.length(); i++) {

if(email.charAt(i) == '@') {

break;

} else {

userName += email.charAt(i);

}

}

System.out.println(userName);

}

}