# EXERCISE: Revision

**STIA1123 –PROGRAMMING II**

1. Fill in the blanks in the program below as follows:
2. declare the variable town as a reference to a String object and initialize it to "

UUM Sintok".

1. write an assignment statement that invokes the length method of the String class to ﬁnd the length of the college String object and assigns the result to the stringLength variable
2. complete the assignment statement so that change1 contains the same characters as

college but all in upper case

1. complete the assignment statement so that change2 is the same as change1

except all capital O's are replaced with the asterisk (\*) character.

1. complete the assignment statement so that change3 is the concatenation of college and town (use the concat method of the String class rather than the + operator)

// \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

// StringExercise.java

//

// Play with String objects

// \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* public class StringExercise

{

public static void main (String[] args)

{

String college = new String ("College of Arts and Sciences");

; // part (a) int stringLength;

String change1, change2, change3;

; // part (b) System.out.println (college + " contains " + stringLength + "

characters.");

change1 = ; // part (c) System.out.println ("The string is all in upper case: " + change1); change2 = ; // part (d)

System.out.println ("All capital O's are replaced with the asterisk character: " + change2);

change3 = ; // part (e) System.out.println ("The final string is " + change3);

}

}

// \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

// StringExercise.java

//

// Play with String objects

// \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

public class StringExercise

{

public static void main (String[] args)

{

String college = new String ("College of Arts and Sciences");

String town = "UUM Sintok"; // part (a)

int stringLength;

String change1, change2, change3;

stringLength = college.length(); // part (b)

System.out.println (college + " contains " + stringLength + " characters.");

change1 = college.toUpperCase(); // part (c)

System.out.println ("The string is all in upper case: " + change1);

change2 = change1.replace("O" , "\*"); // part (d)

System.out.println ("All capital O's are replaced with the asterisk character: " + change2);

change3 = college.concat(town); // part (e)

System.out.println ("The final string is " + change3);

}

}

**Output**

College of Arts and Sciences contains 28 characters.

The string is all in upper case: COLLEGE OF ARTS AND SCIENCES

All capital O's are replaced with the asterisk character: C\*LLEGE \*F ARTS AND SCIENCES

The final string is College of Arts and SciencesUUM Sintok

1. Write a program called “FunnyString” that asks the user to enter a favourite color, food, animal and the ﬁrst name of a friend. Use a Scanner object and read one thing per line. The program should than print the following: For example if the user entered blue for color, burger for food, cat for the animal and Jack for the friend the output will be:

I had a dream that Jack ate a blue cat and said it tasted like burger !

import java.util.Scanner;

public class FunnyString

{

public static void main(String []args)

{

Scanner keyboard = new Scanner (System.in);

String colour, food, animal, friend;

System.out.println("Please enter your favourite colour: " );

colour = keyboard.next();

System.out.println("Please enter your favourite food: ");

food = keyboard.next();

System.out.println("Please enter your favourite animal: ");

animal = keyboard.next();

System.out.println("Please enter your first name of a friend: ");

friend = keyboard.next();

System.out.println("I had a dream that " + friend + " ate a " + colour +

" " + animal + " and said it tasted like " + food + "!");

}

}

**Output**

Please enter your favourite colour:

yellow

Please enter your favourite food:

burger

Please enter your favourite animal:

cat

Please enter your first name of a friend:

Tom

I had a dream that Tom ate a yellow cat and said it tasted like burger!

1. Write a program that read a string for a date in the format day/month/year and displays it as in the format day.month.year. For example if the input is 13/09/18 the output should be 13.09.18 .

Hint: Search in the class String for the appropriate method to solve this problem.

import java.util.Scanner;

public class Date

{

public static void main(String args[])

{

Scanner keyboard = new Scanner(System.in);

String date;

System.out.println("Please enter today date: ");

date = keyboard.next();

date = date.replace("/", ".");

System.out.println(date);

}

}

**Output**

Please enter today date:

17/02/2020

17.02.2020

1. Write a program that reads a four-digit number (such 2018) as a String and then display it one digit per line like so:

2

0

1

8

(Use charAt() method from String, Think about the right type for the variables you use).

Next, print the sum of the digits.

Hint: Use Integer.parseInt() to convert digits to integers.

import java.util.Scanner;

public class Fourdigitnumber

{

public static void main(String args[])

{

Scanner keyboard = new Scanner(System.in);

String num, number;

int sum = 0;

System.out.println("Please enter a four-digit number: ");

num = keyboard.next();

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

{

System.out.println(num.charAt(i));

number = String.valueOf(num.charAt(i));

sum = sum + Integer.parseInt(number);

}

System.out.println("The sum of the digit is " + sum);

}

}

**Output**

Please enter a four-digit number:

2018

2

0

1

8

The sum of the digit is 11