GIRLS' HIGH SCHOOL AND COLLEGE, PRAYAGRAJ

2020-2021

CLASS 12 B

COMPUTER SCIENCE

WORSHEET -06

<u>Note</u>: Parents please ensure that your ward refers to a computer science book/internet for two days to read the topics <u>Strings</u> and <u>Primitive Values, Types Casting And Expressions</u>.

<u>Reference Book</u>: Computer Science with Java for class 12 by Sumita Arora

<u>Website</u>: geeksforgeeks.org

<u>TOPIC - STRINGS</u>

<u>Answer the following questions</u>:

1. Differentiate between String and StringBuffer?
2. What is the difference between length() and capacity() of String functions?
3. A class Stringop is designed to handle string related operations. Some of the members of the class are given below:

    Class name   :   Stringop

    Data Members/instance variables:

    txt   :   to store the string

    Member functions:

    Stringop()   :   default constructor

    void readstring( )   :   to accept the string

    char caseconvert(int) :   convert the letter at the passed index to the reversed case

    void circularcode( )   :   to decode the string by replacing each letter by converting it to opposite case and then by next character in a circular way. Hence "ABz" will become "bcA"

    Specify the class Stringop, giving the details of the constructor( ), void readstring(), char caseconvert(int) and void circularcode( ).

4. Write a program in java to input sentence end with either '.', ',' '!'. The words may be separated by more than one blank space and are in UPPER CASE. Remove the extra white spaces between two words to a single blank and reverse each word of the sentence.

    Example :

    INPUT: SWIMMING   IS   THE   BEST EXERCISE.

    OUTPUT: GNIMMIWS SI EHT TSEB ESICREXE

5. The names of the teams participating in a competition should be displayed on a banner vertically, to accommodate as many teams as possible in a single banner. Design a program to accept the names of N teams, where 2<N<9 and display them in vertical order, side by side with a horizontal tab (i.e., eight spaces).

    Sample Data:

    Example :

    INPUT: N=3

            Team 1: Emus

            Team 2: Road Rols

            Team 3: Coyote

    OUTPUT: E   R   C

           m   o   o

           u   a   y

           s   d   o

                      t

               R   e

               o

               l

               s

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TOPIC - PRIMITIVE VALUES, TYPES CASTING AND EXPRESSIONS

Answer the following questions:

1. Define data types.

2. Explain the two categories of data types in Java.

3. Compare a class as a user-defined data type and a class as an application.

4. What are wrapper classes? Give any two examples.

5. What do you mean type casting?

6. What is coercion?

7. State the difference between pure and mixed expression.

8. State the difference between the functions *int nextInt*( ) and *boolean hasNextInt( )*.

9. What is the difference between Arithmetic expression and Boolean expression?

10. What is object aliasing?

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