Tender Heart High School, Sector-33 B, Chandigarh

Class X **Computer Application** **Date-16.12.2024**

Revision-10(String Handling) **Subject Teacher-Prabhdeep Kaur**

Q1 Write a program to do the following :

(a) To output the question "Who is the inventor of Java" ?

(b) To accept an answer.

(c) To print out "Good" and then stop, if the answer is correct.

(d) To output the message "try again", if the answer is wrong.

(e) To display the correct answer when the answer is wrong even at the third attempt and stop.

Q2 Write a program to extract a portion of a character string and print the extracted string. Assume that m characters are extracted, starting with the nth character.

Q3 Write a program, which will get text string and count all occurrences of a particular word.

Q4 Write a program to accept a string. Convert the string to uppercase. Count and output the number of double letter sequences that exist in the string.

Sample Input : "SHE WAS FEEDING THE LITTLE RABBIT WITH AN APPLE"

Q5 Design a class to overload a function check( ) as follows :

(i) void check(String str, char ch) - to find and print the frequency of a character in a string.
Example:
Input :
str = "success" ch= 's'

Output :
number of s present is = 3

(ii) void check (String s1) - to display only vowels from string s1, after converting it to lower case.
Example:
Input:
sl = "computer"
Output : o u e

Q6 Write a program to input a sentence and print each word of the string along with its length in tabular form.

Q7 Write a program to input a sentence and arrange each word of the string in alphabetical order.

Q8 Write a program to input a sentence and arrange words of the string in order of their lengths from shortest to longest.

Q9 Write a program to input a string in uppercase and print the frequency of each character.
Sample Input : COMPUTER HARDWARE
Sample Output

Character	Frequency
A	2
C	1
D	1
E	2
H	1
M	1
0	1
p	1
R	1

Q10 Write a program to input a string and print each word of the string in the reverse order.
Sample Input:
Enter a string: My name is Raman
Sample Output
yM eman si namaR

Q11 Write a program in Java to accept a string and display the number of uppercase, number of lowercase, number of special characters and number of digits present in the string.

Q12 Write a program to enter a sentence from the keyboard and count the number of times a particular word occurs in it. Display the frequency of the search word.

Sample Input:
Enter a sentence: The quick brown fox jumps over the lazy dog.
Enter a word to search: the

Sample Output:
Search word occurs 2 times

Q13 Write a program in Java to enter a string/sentence and display the longest word and the length of the longest word present in the string.

Sample Input:
"Tata football academy will play against Mohan Bagan"

Sample Output:
The longest word: Football
The length of the word: 8

Q14 Write a program to accept a string. Convert the string to uppercase. Count and output the number of double letter sequences that exist in the string.

Sample Input:
"SHE WAS F**EE**DING THE LI**TT**LE RA**BB**IT WITH AN A**PP**LE"

Sample Output: 4

Q15 Design a class to overload a function check() as follows:

1. void check(String str, char ch) - to find and print the frequency of a character in a string.
   Example:
   Input:
   Str = "success"
   ch= 's'
   Output:
   Number of s present is = 3
2. void check (String s1) - to display only vowels from string s1, after converting it to lowercase.
   Example:
   Input:
   S1= "computer"
   Output: o u e

Q16 Design a class to overload a function Joystring() as follows:

1. void Joystring(String s, char ch1, char ch2) with one string argument and two character arguments that replaces the character argument **ch1** with the character argument **ch2** in the given string **s** and prints the new string.
   Example:
   Input value of s = "TECHNALAGY"
   ch1 = 'A',
   ch2='O'
   Output: "TECHNOLOGY"
2. void Joystring(String s) with one string argument that prints the position of the first space and the last space in the given string s.
   Example:
   Input value of s = "Cloud computing means Internet based computing"
   Output:
   First index : 5
   Last index : 36
3. void Joystring (String s1, String s2) with two string arguments that combines the two strings with a space between them and prints the resultant string.
   Example:
   Input value of s1 ="COMMON WEALTH"
   Input value of s2 = "GAMES"
   Output: COMMON WEALTH GAMES

(use library functions)

newStr = s1.concat(" ").concat(s2);

Q17 Design a class to overload a function num_calc() as follows:

1. void num_calc(int mini, char ch) with one integer argument and one character argument, computes the square of integer argument if choice ch is 's' otherwise finds its cube.
2. void num_calc (int a, int b, char ch) with two integer arguments and one character argument. It computes the product of integer arguments if ch is 'p' else adds the integers.
3. void num_calc (String s1, String s2) with two string arguments, which prints whether the strings are equal or not.

Q18 Design a class to overload a function compare( ) as follows:

1. void compare(int, int) - to compare two integer values and print the greater of the two integers.
2. void compare(char, char) - to compare the numeric value of two characters with higher numeric value.
3. void compare(String, String) - to compare the length of the two strings and print the longer of the two.

Q19 Define a class to accept a string and convert it into uppercase. Count and display the number of vowels in it.

Input: robotics
Output: ROBOTICS
Number of vowels: 3

Q20 Define a class to accept a String and print the number of digits, alphabets and special characters in the string.

Example:
S = "KAPILDEV@83"
Output:
Number of digits – 2
Number of Alphabets – 8
Number of Special characters – 1

Q21 Define a class to accept a string, and print the characters with the uppercase and lowercase reversed, but all the other characters should remain the same as before.

EXAMPLE:
INPUT : WelCoMe_2022
OUTPUT : wELcOmE_2022

Q22 Define a class to declare an array to accept and store ten words. Display only those words which begin with the letter 'A' or 'a' and also end with the letter 'A' or 'a'.
EXAMPLE :
Input : Hari, Anita, Akash, Amrita, Alina, Devi Rishab, John, Farha, AMITHA
Output: Anita
Amrita
Alina
AMITHA

Q23 Define a class to accept two strings of same length and form a new word in such a way that, the first character of the first word is followed by the first character of the second word and so on.
Example :
Input string 1 – BALL
Input string 2 – WORD

OUTPUT : BWAOLRLD

Q24 Write a program to input a sentence and convert it into uppercase and count and display the total number of words starting with a letter 'A'.

Example:

Sample Input: ADVANCEMENT AND APPLICATION OF INFORMATION TECHNOLOGY ARE EVER CHANGING.

Sample Output: Total number of words starting with letter 'A' = 4