# **Java case study answers**

1. **Write a Java program to find count of word from given string**

public class Main {

public static void main(String[] args) {

// initializing a string

String msg = "advance java casestudy ";

System.out.println("The given String is: " + msg);

// To Split the string into words

String[] arrayStr = msg.split("\s+");

// To Count the number of words

int totalWord = arrayStr.length;

// printing the result

System.out.println("Number of words in the given string: " + totalWord);

}

}

Output:

A screenshot of a computer screen

Description automatically generated

(OR)

**User Input:**

import java.util.Scanner;

public class WordCount {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.println("Enter a string: ");

String input = scanner.nextLine();

int wordCount = countWords(input);

System.out.println("Number of words: " + wordCount);

}

public static int countWords(String str) {

str = str.trim();

if (str.isEmpty()) {

return 0;

}

String[] words = str.split("\\s+");

return words.length;

}

}

Output:

A screenshot of a computer program

Description automatically generated

1. **Write a Java program to create a Data structure using ArrayList and perform operation(insert, delete, display).**

import java.util.ArrayList;

public class SimpleArrayListOperations {

public static void main(String[] args) {

ArrayList<String> list = new ArrayList<>();

list.add("Apple");

list.add("Banana");

list.add("Cherry");

System.out.println("Initial elements: " + list);

list.remove("Banana");

System.out.println("After deleting 'Banana': " + list);

if (list.remove("Orange")) {

System.out.println("Deleted: Orange");

}

else {

System.out.println("Element not found: Orange");

}

System.out.println("Final elements: " + list);

}

}

Output:

A screenshot of a computer

Description automatically generated

1. Write a Java program to create a window which is responsive (Student profile).
2. import javax.swing.\*;
3. import java.awt.\*;
4. public class StudentProfile {
5. public static void main(String[] args) {
6. JFrame frame = new JFrame("Student Profile");
7. frame.setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);
8. frame.setSize(300, 200);
9. frame.setLayout(new GridLayout(4, 2)); // Simple grid layout
10. frame.add(new JLabel("Name:"));
11. frame.add(new JTextField(15));
12. frame.add(new JLabel("Age:"));
13. frame.add(new JTextField(3));
14. frame.add(new JLabel("Major:"));
15. frame.add(new JTextField(10));
16. JButton submitButton = new JButton("Submit");
17. frame.add(submitButton);
18. frame.setLocationRelativeTo(null);
19. frame.setVisible(true);
20. }
21. }

Output:

A screenshot of a computer

Description automatically generated

**5.Write a java program to create a window to perform Age calculator**

Ans: import javax.swing.\*;

import java.awt.event.\*;

import java.time.LocalDate;

import java.time.Period;

public class SimpleAgeCalculator {

public static void main(String[] args) {

JFrame frame = new JFrame("Age Calculator");

frame.setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

frame.setSize(300, 150);

JTextField birthDateField = new JTextField(10);

JButton calculateButton = new JButton("Calculate Age");

JLabel resultLabel = new JLabel("Your Age: ");

JPanel panel = new JPanel();

panel.add(new JLabel("Enter Birth Date (YYYY-MM-DD):"));

panel.add(birthDateField);

panel.add(calculateButton);

panel.add(resultLabel);

frame.add(panel);

calculateButton.addActionListener(e -> {

try {

LocalDate birthDate = LocalDate.parse(birthDateField.getText());

LocalDate today = LocalDate.now();

int age = Period.between(birthDate, today).getYears();

resultLabel.setText("Your Age: " + age + " years");

} catch (Exception ex) {

resultLabel.setText("Invalid date format!");

}

});

frame.setLocationRelativeTo(null); // Center the frame

frame.setVisible(true);

}

}

Output:

A screenshot of a calculator

Description automatically generated