



Department of Statistics & Computer Science

University of Kelaniya

ACADEMIC YEAR -2023/2024 (Semester I)

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Data Structures and Algorithms

Practical Tutorial 04

1. Write a Java program using the List data structure to find the **sum**, **average**, **maximum**, **minimum**, and **count of even numbers** in a dataset.

Example:

Input: 15, 22, 7, 13, 8, 6, 19, 20, 4, 17

Output:

Sum: 131

Average: 13.1

Maximum value: 22

Minimum value: 4

Count of even numbers: 5

2. The following table shows the batting scores of each player in the Sri Lanka women's team in the Asia Cup 2024 semi-final match. Using a **List data structure**, find the answers to the following questions.

Player	Batting Score	Balls Faced
Chamari Athapaththu	63	48
Anushka Sanjeevani	24	22
Kavisha Dilhari	17	18
Harshitha Samarawickrama	12	13
Sugandika Kumari	10	9
Hasini Perera	3	3

- a. Who is the highest scoring player?
- b. Who faced the lowest number of balls in the match?
- c. Create a method named “displayBattingStrike” to display the batting strike rate of all the players using the following calculation:

$$\text{Batting Strike Rate} = \frac{\text{Batting Score} \times 100}{\text{Balls Faced}}$$

- d. Find out the Player of the Match. (Assume that the player who has the highest batting strike rate will be selected as the Player of the Match.)

3. Suppose that there are 5 election parties, which participated in the Western Provincial Election 2024, and their votes for each district are given below.

Name of the Election Party	Gampaha	Colombo	Kalutara
A	12453	89023	60250
B	23457	41900	35890
C	74129	23000	56000
D	202	57	354
E	87	5	457

Using the List data structure, find the answers to the following questions:

- Find out the winning parties of each district.
- Find out who won the Western provincial election.
- Find out the election party that obtained the minimum votes in each district.
- Suppose a party is considered eligible for at least one seat on the Western Provincial Council only if the party earns more than 100,000 votes in total. Find out these eligible parties.