SLIIT UNI
THE KNOWLEDGE UNIVERSITY

Faculty of Computing

Year 1 Semester 2 (2025)

SE1020 – Object Oriented Programming Lab Sheet 02

Question 1

Write a Java program to calculate an employee's salary based on their employment type and overtime hours.

a. The program should accept user input for:
   - Employee Type (1, 2, or 3)
   - Basic Salary
   - Overtime Hours (otHours)

b. Based on the Employee Type, assign the respective Overtime Rate (OtRate) as follows:
   - Type 1 → OtRate = 1000
   - Type 2 → OtRate = 1500
   - Type 3 → OtRate = 1700

c. Calculate the Total Salary using the formula.

$$\textbf{Total Salary} = \textbf{Basic Salary} + (\textbf{otHours} * \textbf{OtRate})$$

d. Display the employee's total salary after including overtime pay.

Question 2

Write a Java program to accept 5 integer values from the user and store them in an array. Then;

a. Find the largest value in the array.

b. Find the sum of all elements in the array.

c. Display both the largest value and the sum of elements.

Question 3

Write a Java program that performs the following tasks.

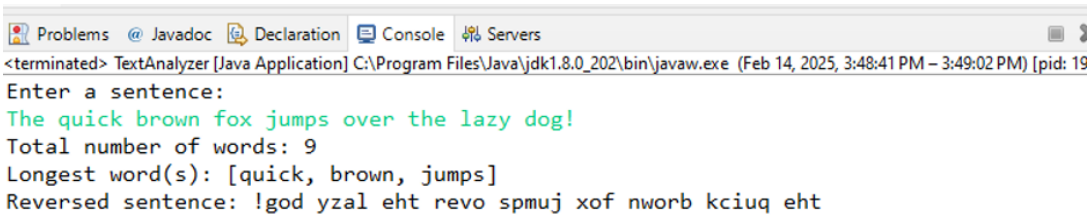
a. Prompt the user to enter a sentence and print the number of words in the sentence. *(Example Sentence: The quick brown fox jumps over the lazy dog!)*

b. Find and display the longest word in the sentence.

c. Reverse the sentence the user has input and display the modified sentence.

[Hint: String reversedSentence = new StringBuilder(sentence).reverse().toString();]

Expected Output:



Question 4

Implement a Java program that prompt the user to enter an integer number of seconds (e.g., 3672 seconds). Then convert the seconds into hours, minutes, and remaining seconds.

[Hint: use operator " %"]

Question 05

Please submit your answer to the question below to Git. When committing the file, ensure that you include a meaningful commit message (e.g., "Lab02 - Question05").

Implement a Java program that accepts 5 words from the user and store them in an array. Then;

a. Find and display the longest word from the array.

b. Calculate and display the total number of characters in all the words combined.

c. Identify and display the words with an even number of characters.