

## Exercise (Java Basics)

1. Develop a program that takes the weight (in kilograms) and height (in meters) as input and calculates the BMI, then prints it.

- Input: Weight (kg) = 70, Height (m) = 1.75
- Expected Output: BMI = 22.86

2. Write a program that takes the obtained marks and total marks as input and calculates the percentage, then prints it.

- Input: Obtained Marks = 85, Total Marks = 100
- Expected Output: Percentage = 85.0%

3. Create a program that takes an amount in one currency and an exchange rate as input, then converts and prints the amount in another currency.

- Input: Amount in USD = 100, Exchange Rate (USD to EUR) = 0.85
- Expected Output: Amount in EUR = 85.0

4. Create a program that takes a string as input, calculates its length, and then reverses the string using the **StringBuilder** class, finally printing both the length and reversed string.

- Input: "Hello, World!"
- Expected Output: Length of the string: 13 And Reversed string: "!dlroW ,olleH"

5. Develop a program that takes a sentence as input and extracts a substring from it, then prints the extracted substring.

- Input: Sentence = "The quick brown fox jumps over the lazy dog", Start Index = 10, End Index = 20
- Expected Output: "brown fox"

6. Write a program that takes a sentence and a keyword as input, then check if the keyword is present in the sentence and prints the result.

- Input: Sentence = "The quick brown fox jumps over the lazy dog", Keyword = "jumps"
- Expected Output: Keyword "jumps" is present in the sentence.

7. Develop a program that takes a sentence and a word to replace as input, then replace all occurrences of the word with another word and prints the modified sentence.

- Input: Sentence = "The quick brown fox jumps over the lazy dog", Word to Replace = "fox", Replacement Word = "cat"
- Expected Output: "The quick brown cat jumps over the lazy dog"

8. Write a program that takes two strings as input and check if they are equal, ignoring the case, then prints whether they are equal or not.

- Input: String 1 = "Hello", String 2 = "hello"
- Expected Output: Strings are equal (ignoring case).