Exercise 1

Basic Scala Syntax

- Say Goodbye to ";"
- Comments (Single Line & Multiline)
- Variables (Immutable & Mutable)
- Data Types (Int, Boolean, Char, Double etc.)
- Optional Data Type Mentioning
- String Compositions/Concatenation
- String Interpolation
- Expressions (every expression is reduced to a single value)
- IF Expressions & Chained IF Expressions
- Code Blocks {}
- Defining Functions (First Class Citizens)
- Loops are not welcomed in Functional Programming but then how to do iterative works????? Let's Discover in Next Lab Together ☺

Classwork

1. Complete installations
2. Build & Run demo project from Git
3. Create your 1st Scala Application
4. Familiarize yourself with basic Scala syntax mentioned above

Homework:

1. Provide two variables/values showing difference between immutable and mutable types. Demonstrate that you are unable to do any assignment to immutable type with an error. [Hint: *var* vs *val*]
2. Provide an example where Scala automatically infers the Data Types of a Boolean, Double, Int and String variables.
3. Create an immutable variable of type String holding your "Last Name" with the help of multiple immutable variables of type Char. [Hint: String Composition]
4. Create a value of type Int holding your age and place it inside the String "I am learning scala at the age of __years" [Hint: String Interpolation]
5. What is a definition of Expression in Scala? Write your answer in the comment supported with example.
6. Write any example showing Chained IF expression resulting to a single value of Int Type
7. Write a Code Block returning a value of type string by concatenating your "First Name" and "Last Name"
8. Define a function that takes 2 values of type Int and returns a single value of type String after summation. E.g. the return String should be "The sum of 1 and 2 is: 3"

Deliverable

Deliverable: Submit a single scala code file with "*.scala*" extension, and write your Name and Student ID in the code as a comment. The whole deliverable must be well commented and supported with descriptions where required.
Deadline: 24.03.2023 12:00 am [Before Next Friday Session]
Submission: (session respective) Return box on Moodle.
Estimated workload: <= 2 hours
Warning: This is individual work. Strict actions will be taken for plagiarism!

Deliverables for Exercise 2:

1. Implementation of the homework part.