**Java**

Assignment - Day 4

Concept: java.lang package

Objective: At the end of the assignment, participants will be able to:

* Explore the java.lang package
* Use StringBuilder class
* Use math class

Problems:

1. Create an Employee class with required attributes and behaviors. Create 2 Employee instances and demonstrate the use of equals method to show that it performs shallow comparison (Compares the memory addresses of objects)
2. Override the equals method so as to perform deep comparison of the 2 objects (Compares the corresponding attribute values of the 2 objects).

Also override the hashCode() to return an integer calculated from the empId field

1. Demonstrate the difference between String and StringBuilder class and explore the methods in them by referring to the Java API
2. Create your own package with an interface for commonly used mathematical operations and an implementation for the same. Make use of the math class to implement the operations.