

## Task(9.3)

## Lambda expression

## Steps:

- 1. Define and Initialize Variables:
  - Define three integer variables: x, y, and z with initial values of 3, 9, and 10, respectively.
- 2. Lambda Function Capture by Reference:
  - Create a lambda function print that captures all variables by reference using [&]. This lambda:
    - Multiplies x, y, and z by 2.
    - Prints the updated values of x, y, and z.
- 3. Lambda Function Capture by Value:
  - Create another lambda function print\_value that captures all variables by value using
    [=]. This lambda:
    - Prints the values of x, y, and z, but since the variables are captured by value, it does not modify them.
    - The values printed are the ones after the changes made by the previous lambda (since it's captured after that lambda call).
- 4. Lambda Function Capture Specific Variables by Reference:
  - Define a lambda function print\_only\_two that captures only x and y by reference, taking one parameter factor.
  - The lambda:
    - Increments x and y by the factor.
    - Prints the updated values of x and y, but does not modify z as it's not captured.
- 5. Main Function Execution:
  - Call the print lambda to modify and print the values of x, y, and z.
  - Call the print\_value lambda to print the values of x, y, and z after the changes.
  - Call the print\_only\_two lambda with a factor (e.g., 10) to update and print only x and y.

## Thank You