

# Practical 2

## Matrix Operations

Create a Matrix using R and Perform the operations addition, inverse, transpose and multiplication operations.

Write a program in R to create two matrices A and B of order 3 X 3 and perform the following operations:

- a) Add matrices A and B
- b) Multiply matrices A and B
- c) Find the inverse of matrix A
- d) Find the inverse of matrix B
- e) Find the transpose of matrix B

# Create two 3x3 matrices.

```
A = matrix(c(2, 3, 4, 4, 3, 1, 1, 2, 4), nrow = 3, ncol = 3, byrow = TRUE)
```

A

```
B = matrix(c(8, 4, 3, 2, 2, 1, 1, 2, 1), nrow = 3, ncol = 3, byrow = TRUE)
```

B

# Add matrices A and B.

A+B

# Multiply matrices A and B .

A\*B

# Find the inverse of matrix A.

solve(A)

# Find the inverse of matrix B.

solve(B)

# Find the transpose of matrix A.

t(A)

# Find the transpose of matrix B.

t(B)