## PRACTICAL – 7

## MULTIPLE REGRESSION MODEL & REGRESSION-BASED PREDICTION

**Problem (Statement)**

1. Import a dataset from a CSV file or manually create a DataFrame. The dataset must contain the following variables:
    - score — final exam score (*continuous dependent variable*)
    - hours — hours studied (*continuous independent variable*)
    - iq — intelligence score (*continuous independent variable*)
    - attendance — percentage class attendance (*continuous independent variable*)
2. Fit a Multiple Linear Regression Model using:
    - score as the dependent variable (Y)
    - hours, iq, attendance as independent variables (X)
3. Report and interpret:
    - Regression coefficients, p-values, and significance
    - R-squared and Adjusted R-squared
4. Predict exam score for the following student:
    - Hours studied = 8
    - IQ = 110
    - Attendance = 85%
5. Provide comments and interpretation for each output.

**Below is a ready-to-use dataset. You may copy it directly into CSV format.**

score,hours,iq,attendance

55,2,95,60

62,3,98,65

70,4,102,70

72,5,105,75

75,6,108,80

78,6,112,82

85,7,115,88

88,8,118,90

92,9,120,92

95,10,125,95

50,1,90,55

58,3,97,63

65,4,100,68

68,5,104,72

80,7,110,85

83,8,116,87

90,9,119,91

93,10,122,94

73,6,106,78

77,7,109,82