

BONUS

MA17BTECH11002

Grade Sheet

March 21, 2019

Problem statement

Implement a relative grading classifier

Implementation

The problem statement is implemented in python. The grades are taken as input. The mean is calculated. The standard deviation is calculated. Since the grade is relative grading, and we know that most of the data lies between 3σ around the mean μ . We divide the the range of marks into 8 classes.

We create an array for roll numbers , two arrays for marks in which changes are made to the second array to find mean and standard deviation. then based on mean and standard deviation the classes are made. We use the concept of statistics that most of data lies between -1.5σ and 1.5σ around mean

We give a grade of A whose marks are above $\mu+1.5\sigma$

We give a grade of A- whose marks are between $\mu+1.5\sigma$ and $\mu+\sigma$

We give a grade of B whose marks are between $\mu+\sigma$ and $\mu+0.5\sigma$

We give a grade of B- whose marks are between $\mu+0.5\sigma$ and μ

We give a grade of C whose marks are between μ and $\mu-0.5\sigma$

We give a grade of C- whose marks are between $\mu-0.5\sigma$ and $\mu-\sigma$

We give a grade of D whose marks are between $\mu-\sigma$ and $\mu-1.5\sigma$

The End