

DESIGN A PYTHON TO CALCULATE
AND SUMMARIZE STUDENT MARK
AND GRADE USING BASIC
PROGRAMMING CONCEPT.

EXPLANATION OF THE CODE :

. INPUT DATA (STUDENT_DATA):

. I'VE CREATED A SAMPLE STUDENT _DATA
DICTIONARY .IN A REAL APPLICATION , YOUR MIGHT
USE INPUT() TO GET DATA FROM THE USER ,OR MORE
COMMONLY,READ IT FROM FILE (E.G,CSV FILE USING

. INDIVIDUAL STUDENT CALCULATION

- THE CODE ITERATES THROUGH EACH STUDENT IN THE STUDENT_DATA DICTIONARY.
- IT CALCULATES TOTAL_MARK BY SUMMING THE MARK FOR EACH STUDENT.
- AVERAGE_MARK IS CALCULATED BY DIVIDING TOTAL_MARK BY THE NUMBER OF SUBJECT.
- GRADE ASSIGNMENT: A SIMPLE IF -ELIF -ELSE STRUCTURE ASSIGNS A LATTER GRADE BASED ON THE AVERAGE MARK .YOU CAN ADJUST THE THRESHOLD

(20, 25, 50, 60) TO MATCH YOUR DESIRED GRADING CRITERIA

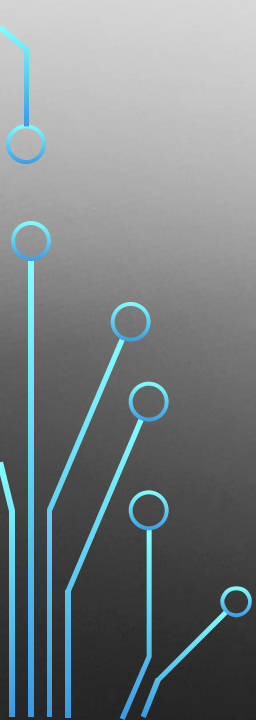
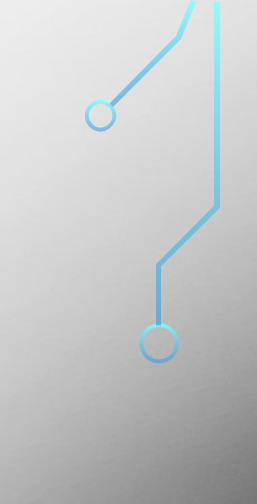
• CLASS SUMMARY CALCULATION:

- TOTAL_STUDENT: USES LEN(STUDENT_DATA) TO GET THE COUNT STUDENT
- CLASS_TOTAL_MARK: SUMS UP THE TOTAL MARKS OF ALL STUDENTS.
- CLASS_AVERAGE: CALCULATE THE OVERALL CLASS AVERAGE. NOTE THIS AVERAGE IS BASED ON THE TOTAL MARKS OBTAINED BY ALL STUDENTS DIVIDED BY THE TOTAL PASSIBLE MARK ACROSS ALL STUDENT ALL SUBJECT.
- CLASS_AVG_PER_SUBJECT: CALCULATES THE AVERAGE SCORE FOR EACH OF THE 3 SUBJECT ACROSS THE ENTIRE CLASS.

CLASS TOTAL



• OUTPUT:

- THE PRINT() STATEMENT ARE FORMATTED TO DISPLAY THE “EXPECTED OUTPUT” AS CLOSELY AS POSSIBLE_AVERAGE.
 - INDIVIDUAL STUDENT DETAIL
(NAME ,MARK ,TOTAL ,AVERAGE ,GRADE).
 - CLASS SUMMARY (TOTAL STUDENT,CLASS AVERAGE ,AVERAGE PER SUBJECT).
 - CLASS TOPPER.
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