

Normalization Challenges

Challenge 2: Design a Database for School

- The school contains classes from 1 to 12.
- For each class, we have N students and for each student we must maintain an electronic gradebook.
- The Electronic grade book must include the scores/grades of an individual student and then compute some simple statistics from the scores.
- There will be 5 or more subjects (varies for each class) for which the scores are entered.
- Each of those subjects are handled by a separate faculty member or teacher.
- The scores are entered as floating-point numbers from 0 to 100 and the statistics should show us the subject with the highest and the lowest grade along with the marks obtained in those subjects.
- Include the average of the grades obtained by each student in their gradebook.
- Also indicate whether the student has passed in all subjects.
- Pass criteria is 50% in each subject.
- We need to calculate the total marks for each student as well.
- Some students may have an optional third language subject and others may not have that subject.
- Failure in that 3rd language subject is not considered as fail.
- Ignore this mark when calculating total marks for ranking.

Furnish other details as required.