Problem Statement:

I need an application that reads the student marks sheet in the attached format and return the following results.



1. The top scorer in each department based on the highest aggregate marks

|  |  |
| --- | --- |
| ECE | TOM |
| ME | KIM |
| CSE | JIM |

1. Number of Indian students
2. Aggregate Marks of each student grouped by the department and sorted by their aggregate marks.

|  |  |  |
| --- | --- | --- |
| ECE | TIM | 90 |
| KIM | 89 |
| CSE | JIM | 88 |
| ME | TOM | 77 |
| ROSE | 66 |

1. Names of the students in each class who was born before 01/01/1990

|  |  |
| --- | --- |
| ECE | TIM |
| KIM |
| CSE | JIM |
| ME | TOM |
| ROSE |

1. Shorthand notation for each student using the first letter of their first name and last name.

If the shorthand is already assigned for another student use the second letters of first name and last name and so on.

|  |  |  |
| --- | --- | --- |
| KIM | JOHNY | JK |
| MIKE | ADAM | MA |
| KIM | JAMES | KA |
|  |  |  |
|  |  |  |

1. Calculate the Grades for each student based on their aggregate marks

91-100 – A+

81-90 – A

71-80 – B +

61-70 – C+

Otherwise D

Identify the number of students in each grade and group it under the various departments as follows

|  |  |  |
| --- | --- | --- |
| ECE | A+ | 5 |
| B+ | 10 |
| CSE | A | 8 |
| ME | C | 12 |
| D | 15 |

1. Return the list of FOREIGN students in all the departments

|  |  |
| --- | --- |
| ECE | TIM |
| KIM |
| CSE | JIM |
| ME | TOM |
| ROSE |

1. If any of the fields are missing in the input file throw exception and log the error.