|  |  |  |  |
| --- | --- | --- | --- |
| Reason For Test Case | Input Values | Expected Output | OK |
| -Valid Students data. | Last1,First1 1234 M 100 100 100  Last2,First2 2235 M 89 80 80  Last3,First3 4236 M 70 79 74  Last4,First4 5237 F 60 69 65  Last5,First5 6238 F 9 59 50  Last6,First6 7239 F 50 60 91 | \*~~< Stud Exam Report >~~\*   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Name | StudId | Sex | Exam 1 | Exam 2 | Exam 3 | AVG of Exams | Grade | | Last1,First1 | 1234 | M | 100.00 | 100.00 | 100.00 | 100 | EXCELLENT | | Last2,First2 | 2235 | M | 89.00 | 80.00 | 80.00 | 83 | GOOD | | Last3,First3 | 4236 | M | 70.00 | 79.00 | 74.00 | 75 | OK | | Last4,First4 | 5237 | F | 60.00 | 69.00 | 65.00 | 65 | WEAK | | Last5,First5 | 6238 | F | 9.00 | 59.00 | 50.00 | 40 | FAILING | | Last6,First6 | 7239 | F | 50.00 | 60.00 | 91.00 | 67 | WEAK |   Bar chart for Performance   |  |  | | --- | --- | | EXCELLENT | |\*\*\* | | GOOD | |\*\*\* | | OK | |\*\*\* | | WEAK | |\*\*\*\*\*\* | | FAILING | |\*\*\* |   >> Mean of all AVG: 71.67  >>% of Valid: 100.00  >>% of Invalid: 0.00  \*< end >\* |  |
| -one invalid | Last,First 1234 C 50 50 50 | \*~~< Stud Exam Report >~~\*   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Name | Stud Id | Sex | Exam 1 | Exam 2 | Exam 3 | AVG of Exams | Grade | | Last,First | 1234 | C | 50.00 | 50.00 | 50.00 | ~~ Invalid data ~~ | |   No Valid students data in file to evaluate performance bar chart and the mean of all AVG!  >>% of Valid: 0.00  >>% of Invalid: 100.00  \*< end >\* |  |
| -all invalid | Last1,First1 1234 C 0 0 0  Last2,First2 1235 M 500 5 15 | \*~~< Stud Exam Report >~~\*   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Name | Stud Id | Sex | Exam 1 | Exam 2 | Exam 3 | AVG of Exams | Grade | | Last1,First1 | 1234 | C | 0.00 | 0.00 | 0.00 | ~~ Invalid data ~~ | | | Last2,First2 | 1235 | M | 500.00 | 5.00 | 15.00 | ~~ Invalid data ~~ | |   No Valid students data in file to evaluate performance bar chart and the mean of all AVG!  >>% of Valid: 0.00  >>% of Invalid: 100.00  \*< end >\* |  |
| -one valid record | Last,First 1234 M 50 60 70 | \*~~< Stud Exam Report >~~\*   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Name | Stud Id | Sex | Exam 1 | Exam 2 | Exam 3 | AVG of Exams | Grade | | Last,First | 1234 | M | 50.00 | 60.00 | 70.00 | 60 | WEAK |   Bar chart for Performance   |  |  | | --- | --- | | EXCELLENT | | | | GOOD | | | | OK | | | | WEAK | |\*\*\* | | FAILING | | |   >> Mean of all AVG: 60.00  >>% of Valid: 100.00  >>% of Invalid: 0.00  \*< end >\* |  |
| -valid with invalid data  -all valid data situations: exams that are on the low and high edge of the grade (this includes zeros, Excellent grade edges, Good grade edges, Ok grade edges, Weak grade edges, Failing grade edges, and 100)  - all invalid data situations:  - invalid low id, high id.  - invalid low exam (negative), high exam.  -invalid gender  - invalid exam1,exam2,exam3  - invalid all  - no gender in input | Last1,First1 1234 M 65 66 67  Last2,First2 5678 M 0 0 0  Last3,First3 9012 M 75 77 79  Last4,First4 3456 M 99 95 92  Last5,First5 7890 F 77 0 100  Last6,First6 4321 M 50 60 70  Last7,First7 123 M 16 100 15  Last8,First8 1212 N 12 90 89  Last10,First10 1313 M -1 59 48  Last11,First11 1414 F 97 101 66  Last12,First12 -1 T 234 567 890  Last13,First13 9876 70 70 71 | \*~~< Stud Exam Report >~~\*   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Name | Stud Id | Sex | Exam 1 | Exam 2 | Exam 3 | AVG of Exams | Grade | | Last1,First1 | 1234 | M | 65.00 | 66.00 | 67.00 | 66 | WEAK | | Last2,First2 | 5678 | M | 0.00 | 0.00 | 0.00 | 0 | FAILING | | Last3,First3 | 9012 | M | 75.00 | 77.00 | 79.00 | 77 | OK | | Last4,First4 | 3456 | M | 99.00 | 95.00 | 92.00 | 96 | EXCELLENT | | Last5,First5 | 7890 | F | 77.00 | 0.00 | 100.00 | 59 | FAILING | | Last6,First6 | 4321 | M | 50.00 | 60.00 | 70.00 | 60 | WEAK | | Last7,First7 | 123 | M | 16.00 | 100.00 | 15.00 | ~~ Invalid data ~~ | | | Last8,First8 | 1212 | N | 12.00 | 90.00 | 89.00 | ~~ Invalid data ~~ | | | Last10,First10 | 1313 | M | -1.00 | 59.00 | 48.00 | ~~ Invalid data ~~ | | | Last11,First11 | 1414 | F | 97.00 | 101.00 | 66.00 | ~~ Invalid data ~~ | | | Last12,First12 | -1 | T | 234.00 | 567.00 | 890.00 | ~~ Invalid data ~~ | | | Last13,First13 | 9876 | 7 | 0.00 | 70.00 | 71.00 | ~~ Invalid data ~~ | |   Bar chart for Performance   |  |  | | --- | --- | | EXCELLENT | |\*\*\* | | GOOD | | | | OK | |\*\*\* | | WEAK | |\*\*\*\*\*\* | | FAILING | |\*\*\*\*\*\* |   >> Mean of all AVG: 59.67  >>% of Valid: 50.00  >>% of Invalid: 50.00  \*< end >\* |  |