

Birla Institute of Technology & Science, Pilani, K. K. BIRLA Goa Campus
Computer Programming (CS F111)
Second Semester 2017-2018
Lab-Online 01 – 4th February 2018

Note:

1. Indentation of the program is a must, without which the program **will not be** evaluated.
2. **Do not** manipulate any values or expressions to get the output.
3. Name the file with **your ID Number**. E.g.:2016A7PS1203G.sh
4. Upload the <You ID Number>.sh file in photon **Online_Submission** link under **Labs** section well before session expiry time.

Question

The file Course_marks.txt contains a list of student IDs and their corresponding marks obtained for a course. The marks are out of 90. The IDs and Marks are separated by one or more spaces.

Sample input in Course_marks.txt:

2016A7PS1203G 44

2016A3PS1345G 82

2016B3PS1120G 70

2016A3PS1024G 59

Some of the students receive additional credit for their class performance. This data is stored performance.txt file. The credits are given as grades **O, A and E**. If a student gets grade O, then he/she is awarded 10 marks. For grade A, 5 marks are awarded and for grade E, 2 marks are awarded. The IDs and credits are separated by one or more tabs.

Sample input in performance.txt:

2016A3PS1345G O

2016A3PS1024G A

Write a shell script to grade the student.

Steps to achieve the same are described in next page.

Step 1:

For each student in Course_marks.txt file, check if any entry is available in performance.txt. If yes, then take convert the credit received to mark and add it to course mark to obtain total marks [out of 100]. Store student ID and total marks [separated by a single space] in Final.txt file.

Sample output in Final.txt

2016A7PS1203G 44

2016A3PS1345G 92

2016B3PS1120G 70

2016A3PS1024G 64

Step 2:

Assign the grades for each student in Final.txt by mapping the marks to grades according to the below table and store in the Grades.txt file [separated by a single tab]:

Greater than or equal to 85 → A

Less than 85 but greater than or equal to 70 → B

Less than 70 but greater than or equal to 45 → C

Less than 45 → D

Sample output in Grades.txt

2016A7PS1203G 44 D

2016A3PS1345G 92 A

2016B3PS1120G 70 B

2016A3PS1024G 64 C

Step 3:

Sort the list of the student records based on grades and append it at the bottom of Grades.txt file.

Sample output in Grades.txt [in next page]

2016A7PS1203G	44	D
2016A3PS1345G	92	A
2016B3PS1120G	70	B
2016A3PS1024G	64	C
2016A3PS1345G	92	A
2016B3PS1120G	70	B
2016A3PS1024G	64	C
2016A7PS1203G	44	D