

**Problem 1:** You are given a list of **exam marks** as follows:

```
exam_marks =[
{
  "ID": "214001",
  "name": "A",
  "CT": [18,7,17,11], #4 class test marks(out of 20 marks for each, total
60), consider only best 3
  "Final_Exam": [[25,20,33],[10,34,15]], #marks of sectionA(out of 105) and
sectionB (out of 105)
  "Attendance": [27,36] # total presents, total classes (total marks 30)
},
{
  "ID": "214002",
  "name": "B",
  "CT": [11,17,13,19],
  "Final_Exam": [[28,0,33],[19,30,27]],
  "Attendance": [28,36]
}
,
{
  "ID": "214003",
  "name": "C",
  "CT": [10,14,9,18],
  "Final_Exam": [[14,8,10],[6,13,9]],
  "Attendance": [20,36]
},
{
  "ID": "214004",
  "name": "D",
  "CT": [13,20,16,20],
  "Final_Exam": [[29,17,33],[16,30,25]],
  "Attendance": [32,36]
},
{
  "ID": "214005",
  "name": "E",
  "CT": [0,8,6,0],
  "Final_Exam": [[7,0,8],[11,0,0]],
  "Attendance": [12,36]
}]
```

Now, write a python program that calculates the grade of students and shows the output as following format:

***"Hello, Student A with ID: 204001 has obtained letter\_grade"***

You have to consider the following distribution of marks for calculating grade:

**Attendance: 10%**  
**Class test: 20%**  
**Final Exam: 70%**

Letter grade should be calculated as follows:

Letter Grade	Numerical Equivalent
A+	80% and above
A	75% to below 80%
A-	70% to below 75%
B+	65% to below 70%
B	60% to below 65%
B-	55% to below 60%
C+	50% to below 55%
C	45% to below 50%
D	40% to below 45%
F	Less than 40%

## **Problem 2:**

Consider the following text:

***The study titled "Present status and historical changes of urban green space in Dhaka city, Bangladesh: A remote sensing driven approach" was published in the US-based "Environmental Challenges" journal in December last year.***

You need to write python program(s) with following actions:

- Print the characters and their frequency of the given text as a dictionary.
- Sort the above dictionary **[for question (a)]** in descending and ascending order of frequency respectively.
- Write a python program to store the above text into a file with only three words in each line.