

Assignment 3

BUSA 523

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due: Feb 14th, 11:59 PM

1. Create a class to store student records. Each student has a first name, last name, country, overall grade [0 - 4.0 scale], credits completed [total 30] and major. Create a method within this class to evaluate student progress. **(20)**
 - a. **Progress - "Good"**: if grades are above 3.0 and credits completed is greater than 20
 - b. **Progress - "Average"**: if grades are above 2.5 or credits completed is between 10 and 20
 - c. **Progress - "Good"**: if grades are below 2.5

2. Write a function which separates the positive and negative numbers from a list of numbers. **(20)**

Input: [-6, 5, -3, -2, 1, 0, -8, 9, 3]

Output: [-6, -3, -2, -8], [5, 1, 9, 3]

3. Write a function which outputs all winning possibilities for a given player's score. Assume the score is always greater than 15 and the dealer is dealt only 2 cards. **(40)**

Input - 18 [player's final score]

Output - [[9,10], [10,11], [10,10], [11,9], [11,8]]

Notes:

- No need to specify face cards separately, you can use the value "10"
- [11,11] is not a winning combination

<https://u.osu.edu/sdp12d1/user-manual/> [BlackJack - rules]

4. Calculate the number of steps & Big O order for the programs in question 2 and 3. **(20)**