# Assignment 2

I assume that hotel reviews can be received via api, so there are three types guest

1- Couple
2- Family
3- Romantic

And there are 5 rating types

1- Excellent (5 stars)
2- Very good (4 stars)
3- Average (3 stars)
4- Poor ( -2 stars)
5- Terrible (- 5 star)

Rating must be evaluated and differentiated, so for example we cannot say one excellent rating is equal to one Poor rating. I have followed simple algorithm to calculate the rating as below:

- If rating is excellent then we add three scores to it
- If rating is very good then we add two scores to it
- If rating is average then it maintains as it is.
- If rating is poor then we detect two scores from it.
- If rating is terrible then we detect three scores

Now assume there 19 guest make review in one of the hotel and they rate it as following :

| Couple | Family | Romantic | Rating |
|---|---|---|---|
| **4** | 1 | 0 | Excellent |
| **2** | 1 | 1 | Very good |
| **1** | 1 | 0 | Average |
| **2** | 0 | 1 | Poor |
| **3** | 2 | 0 | Terrible |

Now let's follow our rating formula we mentioned earlier to see if this hotel is good for "Couple" so if result is equal or more than zero then is good for couple.

Excellent = ((4 * 5) normal score + ( 4 * 3) privilege scores) = 32

Very good = ((2 * 4) normal score + ( 2 * 2)privilege scores) = 12

Average = 3

Poor = ((2 * -4) normal score + (2 * -2) detected scores) = -12

Poor = ((3 * -5) normal score + (3 * -3) detected scores) = -24

Result = 11 “so this is good for couple ”

Family will be three score = “is good for family”

But Romantic will be “-2” so “not good for romantic ”

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Source code: https://github.com/saifalgiri/Rating-System