**Airlines Baggage Billing Service**

Airlines baggage billing service provide a passenger with baggage fee calculation service, with reference to China Airlines baggage accounting standards. A passenger can calculate his/her own baggage fees by offering relevant flight and baggage information including aircraft cabin, region, baggage weight, air fare and whether the passenger is a student to the service.

1. **Aircraft cabin**

There are four kinds of aircraft cabins: first class, business class, economy class and infant ticket.

1. **Region**

According to the destination of flight, region is divided into domestic region and international region.

1. **Baggage weight**

If the weight of a passenger’s baggage is no more than limitation, he/she does no need to pay for baggage fee. But if the weight is above the limitation, a passenger needs to pay for the baggage fee. The following Table 1 shows the weight limitation of various cabin.

Table 1

|  |  |
| --- | --- |
| aircraft cabin | weight limitation |
| First Class | 40 |
| Business Class | 30 |
| Economy Class | 20 |
| infant ticket | 0 |

NOTE: An exception situation is that when a passenger is student and the passenger’s destination is abroad (international region), the weight limitation of this passenger is assigned 30. We suppose that students can only buy tickets of economy class.

1. **Calculation of baggage fee**

Baggage fee is billed according to the following Table 2

Table 2

|  |  |
| --- | --- |
| baggage fee | condition |
| (baggage weight – weight limitation)\* air fare\*0.015 | baggage weight > weight limitation |
| 0 | baggage weight<=weight limitation |

1. **Input Parameters**

Input parameters are shown in Table 3.

Table 3

|  |  |  |
| --- | --- | --- |
| parameters | meaning | description |
| airClass | aircraft cabin | When “airClass” is assigned “0”, it represents First Class.  When “airClass” is assigned “1”, it represents Business Class.  When “airClass” is assigned “2”, it represents Economy Class.  When “airClass” is assigned “3”, it represents infant ticket. |
| area | region | When “area” is assigned “0”, it represents domestic region.  When “area” is assigned “1”, it represents international region. |
| isStudent | whether the passenger is a student | When “isStudent” is assigned “0”, it represents that the passenger is not a student.  When “isStudent” is assigned “1”, it represents that the passenger is a student. |
| Luggage | baggage weight |  |
| economicfee | air fare |  |

1. **System Output**

There is only one output parameter related to airlines baggage billing service: luggagefee, which means baggage fee.

1. **A complete example**

Suppose Mike used airlines baggage billing service to calculate the baggage fee and entered the following information.

airClass: 2

area: 1

isStudent: 1

luggage: 35

economicfee: 300

Mike is a student and he bought an economy class ticket of international region. According to the NOTE of Table 1, Mike meets the requirement of exception situation, so his weight limitation is 30. His baggage weight is over the limitation (30), and his baggage fee is calculated as follows:

luggagefee = (35 - 30) \* 300 \* 0.015 = 22.5