Salesforce Coding Exercise

Instructions for candidates:

Please review the requirements below and produce a working code solution in APEX, code must be able to compile, and the methods of the test class must run successfully.

Do include the unit tests for the scenarios described below, and any other that you see fit.

Make sure your code is clean, well indented, commented, with proper variable naming, so that it is easy to read and to understand.

We encourage you to consult the following documentation to learn more about apex coding and testing, as well as best coding practices in Salesforce.

Best of Luck!

Coding:

<https://trailhead.salesforce.com/en/content/learn/trails/build-apex-coding-skills>

<https://trailhead.salesforce.com/content/learn/modules/apex_triggers>

Testing:

<https://trailhead.salesforce.com/content/learn/modules/apex_testing>

* Add a custom field (2 decimal place currency) to Account called “Budget”.
* Add to Contact a custom field (2 decimal place currency)  called  “Budget”, and two fields (checkbox) named “Use Marketing Budget” and “Use Sales Budget”.
* Write a trigger on Account to perform the logic described below whenever “Budget” changes. Note that the “Budget” field may sometimes be empty.
* The Account “Budget” is to be divided in 2 portions (60% for Sales and 40% for Marketing). The Sales portion is to be equally distributed by all Contacts of that Account that have “Use Sales Budget” checked. The Marketing portion is to be equally distributed by all Contacts of that Account that have “Use Marketing Budget” checked.
* A Contact that has both “Use Sales Budget” and “Use Marketing Budget” receives a contribution from both Sales and Marketing portions.
* The divisions need to be as fair as possible, but do take into consideration that you are dealing with currencies, to the second decimal place (i.e. you cannot split currencies past the cent - e.g. 2.05 divided by 2 needs to be split into 1.03 + 1.02, and not into 1.025 + 1.025).
* For this exercise, you do not need to also write Contact triggers to handle child Contacts being added or deleted from the Account.
* Create the unit tests class covering the scenarios bellow, and any other case you find is relevant.
* You can email the trigger (don't worry about the custom fields) and test to [Ivan.Pinto@M](mailto:Ivan.Pinto@Majesco.com)[ajesco.com](http://majesco.com).

**Scenario 1:**

An Account has a Budget of 100.00 EUR and the following Child Contacts:

|  |  |  |
| --- | --- | --- |
| Contact | Use Marketing Budget | Use Sales Budget |
| Contact 1 | True | False |
| Contact 2 | True | True |
| Contact 3 | False | True |
| Contact 4 | False | True |
| Contact 5 | False | False |

Result:

Account Budget = 100.00

Marketing Budget = 40% of 100.00 = 40.00

Sales Budget = 60% of 100.00 = 60.00

Users that use Marketing Budget = 2

Users that use Sales Budget = 3

Distribution of Budget:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Contact | Use Marketing Budget | Use Sales Budget | Budget | Reason |
| Contact 1 | True | False | 20.00 | 1 share of the Marketing Budget |
| Contact 2 | True | True | 40.00 | 1 share of the Marketing Budget + 1 share of the Sales Budget |
| Contact 3 | False | True | 20.00 | 1 share of the Sales Budget |
| Contact 4 | False | True | 20.00 | 1 share of the Sales Budget |
| Contact 5 | False | False | 0.00 | No shares from either Budgets |

**Scenario 2:**

An Account has a Budget of 16.75 EUR and the following Child Contacts:

|  |  |  |
| --- | --- | --- |
| Contact | Use Marketing Budget | Use Sales Budget |
| Contact 1 | False | True |
| Contact 2 | False | True |

Result:

Account Budget = 16.75

Marketing Budget = 40% of 16.75= 6.70

Sales Budget = 60% of 16.75= 10.05

Users that use Marketing Budget = 0

Users that use Sales Budget = 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Contact | Use Marketing Budget | Use Sales Budget | Budget | Reason |
| Contact 1 | False | True | 5.03 | 1 share of the Sales Budget |
| Contact 2 | False | True | 5.02 | 1 share of the Sales Budget |

Note: There is a small difference between the value assigned to each contact, that is because we are not allowed to split currencies past the cent, and the total needs to be preserved (5.03 + 5.02 = 10.05).