**Coding Challenge**

Please write a script to achieve the following goal in your preferred coding language. Please indicate in which you language you are writing.

A table has been created logging the weekly historical status of each item in our database for the last year. The columns include ‘Export\_Date’, ‘Item\_ID’ and ‘Status’. Exports occur once per week and items may or may not change in status between weeks. We are interested in understanding how long it takes for an item to change from status ‘Open’ to ‘Closed’ the first time. Please write a script that will calculate this length of time for each unique Item ID. This script should be able to handle all three scenarios portrayed in the data below:

1. An item is entered with Status ‘Closed’ from the beginning
2. An item moves to ‘Closed’ after some time and then reopens (we are only interested in how long it takes the first time to move to ‘Closed’)
3. An item has not yet moved to ‘Closed’ and should be flagged or removed from the dataset

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| --- | --- | --- |
| Export\_Date | Item\_ID | Status |
| 1/31/2017 | 201 | Open |
| 1/31/2017 | 202 | Closed |
| 1/31/2017 | 203 | Open |
| 2/7/2017 | 201 | Open |
| 2/7/2017 | 202 | Closed |
| 2/7/2017 | 203 | Open |
| 2/14/2017 | 201 | Pending |
| 2/14/2017 | 202 | Closed |
| 2/14/2017 | 203 | Open |
| 2/21/2017 | 201 | Closed |
| 2/21/2017 | 202 | Closed |
| 2/21/2017 | 203 | Open |
| 2/28/2017 | 201 | Closed |
| 2/28/2017 | 202 | Closed |
| 2/28/2017 | 203 | Open |
| 3/7/2017 | 201 | Pending |
| 3/7/2017 | 202 | Closed |
| 3/7/2017 | 203 | Open |
| 3/14/2017 | 201 | Closed |
| 3/14/2017 | 202 | Closed |
| 3/14/2017 | 203 | Open |