AIG_Interview_Excel_Test

Minghao Liu 12/20/2019

Germany

2019Q3

```
##
         dev3 dev6 dev9 dev12 dev15 dev18 dev21 dev24 dev27 dev30 dev33 dev36
## 2016
                151
                      586
                            803
                                  1843
                                         2674
                                                6090
                                                       6776
                                                              7865 16466 18447 20563
           43
## 2017
            0
                 68
                      246
                            374
                                   894
                                         1328
                                                2288
                                                       2660
                                                              4620
                                                                     5488
                                                                            5917
                                                                                      0
## 2018
                      216
                             409
                                   890
                                         1284
                                                5944
                                                          0
                                                                 0
                                                                        0
                                                                               0
                                                                                      0
## 2019
                 72
                      95
                               0
                                             0
                                                   0
                                                          0
                                                                 0
                                                                        0
                                                                               0
                                                                                      0
##
         dev39
               dev42 dev45 dev48 dev51
## 2016 33521
               33890 28659
## 2017
                                         0
## 2018
             0
                    0
                           0
                                         0
                                  0
                           0
                                         0
## 2019
```

2019Q4

```
##
         dev3 dev6 dev9 dev12 dev15 dev18 dev21 dev24 dev27 dev30 dev33 dev36
## 2016
           43
                151
                     594
                            814
                                  1853
                                         2685
                                                6100
                                                       6792
                                                             7881 16890 18965 21101
            0
                 70
                     251
                                   900
                                                             4620
                                                                           5917
                                                                                  6090
## 2017
                            379
                                         1334
                                                2293
                                                      2666
                                                                    5488
## 2018
                     216
                            409
                                   890
                                         1283
                                                5927
                                                       6273
                                                                 0
                                                                        0
                                                                                     0
                                                                        0
## 2019
                 72
                      95
                                                                 0
                                                                                     0
                            118
##
         dev39
               dev42 dev45 dev48 dev51
## 2016 34067
               34443 29224 29477
                                         0
## 2017
                                         0
## 2018
             0
                    0
                           0
                                  0
                                         0
## 2019
                                         0
```

Recon

```
##
         dev3 dev6 dev9 dev12 dev15 dev18 dev21 dev24 dev27 dev30 dev33 dev36
            0
                  0
                        8
                              11
                                     10
                                                   10
                                                                       424
                                                                              518
## 2016
                                            11
                                                          16
                                                                 16
                                                                                     538
## 2017
                  2
                        5
                               5
                                                                  0
                                                                                0
                                                                                       0
             0
                                      6
                                             6
                                                    5
                                                           6
                                                                         0
## 2018
                               0
                                      0
                                            -1
                                                           0
                                                                  0
                                                                         0
                                                                                0
                                                                                       0
                        0
                                                  -17
## 2019
                                                           0
                                                                  0
                                                                                       0
##
         dev39 dev42 dev45 dev48 dev51
## 2016
           546
                  553
                         565
## 2017
             0
                     0
                                   0
                                          0
                           0
## 2018
             0
                     0
                           0
                                          0
## 2019
             0
                     0
                           0
                                   0
                                          0
```

```
## [1] 3243
```

```
## 2019Q3
## 2016 28659
## 2017 5917
## 2018 5944
## 2019 95
```

```
## 2019Q4

## 2016 29224

## 2017 5917

## 2018 5927

## 2019 95
```

The result for Germany Reconciliation

```
## Difference

## 2016 565

## 2017 0

## 2018 -17

## 2019 0
```

```
## [1] 548
```

France 2019Q3

```
##
         dev3 dev6 dev9 dev12 dev15 dev18 dev21 dev24 dev27 dev30 dev33 dev36
## 2016
           30
                307
                      508
                            1271
                                   2614
                                          3246
                                                 3795
                                                        4811
                                                               5748
                                                                      7956
                                                                             8992 10493
                      397
## 2017
             0
                140
                             937
                                   1467
                                          2263
                                                 3350
                                                        6150
                                                               7257
                                                                      7845
                                                                             8607
                                                                                        0
   2018
             0
                                   2033
                                                 5461
##
                 62
                      783
                            1263
                                          3476
                                                            0
                                                                   0
                                                                          0
                                                                                 0
                                                                                        0
## 2019
           14
                 40
                      140
                                0
                                                     0
                                                            0
                                                                   0
                                                                          0
                                                                                 0
                                                                                        0
##
         dev39 dev42 dev45 dev48 dev51
##
  2016 11801
               13581 15652
## 2017
              0
                                          0
                                   0
## 2018
              0
                     0
                            0
                                   0
                                          0
## 2019
              0
                     0
                            0
                                   0
                                          0
```

2019Q4

```
##
         dev3 dev6 dev9 dev12 dev15 dev18 dev21 dev24 dev27 dev30 dev33 dev36
## 2016
           30
                306
                      510
                            1274
                                   2616
                                          3247
                                                 3796
                                                        4811
                                                               5748
                                                                      7965
                                                                             9009
                                                                                  10523
                                                                             8607
                      402
                             942
                                   1472
                                                                      7846
## 2017
             0
                140
                                          2269
                                                 3355
                                                        6150
                                                               7257
                                                                                    8775
                                                 5491
## 2018
             0
                 62
                            1263
                                   2033
                                          3474
                                                                   0
                                                                          0
                                                                                 0
                                                                                        0
                      783
                                                        6187
## 2019
           14
                 40
                      140
                             598
                                                                   0
                                                                          0
                                                     0
                                                            0
                                                                                 0
                                                                                        0
##
         dev39 dev42 dev45 dev48 dev51
  2016 11850
                13644 15752 17418
## 2017
              0
                     0
                            0
                                   0
                                          0
## 2018
              0
                     0
                            0
                                   0
                                          0
                                          0
## 2019
              0
                     0
                            0
                                   0
```

Recon

```
dev3 dev6 dev9 dev12 dev15 dev18 dev21 dev24 dev27 dev30 dev33 dev36
##
                          2
                                  3
                                         2
                                                                               9
## 2016
              0
                   -1
                                                 1
                                                        1
                                                                0
                                                                       0
                                                                                     17
                                                                                             30
## 2017
              0
                    0
                          5
                                  5
                                         5
                                                 6
                                                        5
                                                                0
                                                                       0
                                                                               1
                                                                                       0
                                                                                              0
## 2018
              0
                    0
                          0
                                  0
                                         0
                                               -2
                                                       30
                                                                0
                                                                       0
                                                                               0
                                                                                       0
                                                                                              0
## 2019
                                                        0
                                                                       0
                                                                                              0
##
          dev39
                        dev45 dev48
                 dev42
                                        dev51
## 2016
              49
                     63
                           100
                                     0
                                             0
## 2017
               0
                      0
                                     0
                                             0
                              0
## 2018
               0
                      0
                              0
                                     0
                                             0
## 2019
               0
                      0
                              0
                                     0
                                             0
```

```
## [1] 331
```

```
## 2019Q3
## 2016 15652
## 2017 8607
## 2018 5461
## 2019 140
```

```
## 2019Q4

## 2016 15752

## 2017 8607

## 2018 5491

## 2019 140
```

The result for France Reconciliation

```
## Difference

## 2016 100

## 2017 0

## 2018 30

## 2019 0
```

```
## [1] 130
```

Sweden

2019Q3

```
##
         dev3 dev6 dev9 dev12 dev15 dev18 dev21 dev24 dev27 dev30 dev33 dev36
## 2016
                  0
                       0
                           3404
                                 4504
                                        4991
                                                      7014
                                                             7728
                                                                          9773 10506
                                               6064
                                                                   8641
## 2017
                 29
                      64
                                                       248
                                                                    257
                                                                           272
                            104
                                  168
                                         202
                                                238
                                                              257
                                                                                    0
                       5
                                   500
## 2018
                  0
                            213
                                         777
                                                922
                                                         0
                                                                0
                                                                       0
                                                                             0
                                                                                    0
## 2019
                 53
                     121
                              0
                                     0
                                            0
                                                  0
                                                         0
                                                                0
                                                                                    0
         dev39 dev42 dev45 dev48 dev51
##
## 2016 11476 12459 12947
## 2017
                    0
                                 0
                                        0
## 2018
             0
                    0
                           0
                                 0
                                        0
## 2019
             0
                                 0
                                        0
                    0
                           0
```

2019Q4

```
##
         dev3 dev6 dev9 dev12 dev15 dev18 dev21 dev24 dev27 dev30 dev33 dev36
                  0
                        0
## 2016
            0
                           3397
                                  4493
                                         4978
                                                6048
                                                       6997
                                                              7718
                                                                     8634
                                                                            9765 10497
                 29
## 2017
                       66
                            106
                                   172
                                          206
                                                 242
                                                        252
                                                               261
                                                                      261
                                                                             276
                                                                                    276
## 2018
                        5
                                   510
                                                                 0
                                                                        0
                  0
                            216
                                          793
                                                 941
                                                       1165
                                                                               0
                                                                                      0
## 2019
                 54
                      124
                             128
                                                    0
                                                          0
                                                                 0
                                                                         0
                                                                                      0
##
         dev39 dev42 dev45 dev48 dev51
## 2016 11468 12459 12949 14078
## 2017
              0
                                         0
                    0
## 2018
             0
                    0
                           0
                                  0
                                         0
## 2019
             0
                    0
                           0
                                  0
                                         0
```

Recon

```
##
         dev3 dev6 dev9 dev12 dev15 dev18 dev21 dev24 dev27 dev30 dev33 dev36
## 2016
             0
                   0
                         0
                               -7
                                     -11
                                             -13
                                                    -16
                                                           -17
                                                                   -10
                                                                           -7
                                                                                   -8
                                                                                          -9
## 2017
                   0
                         2
                                2
                                               4
                                                                     4
                                                                                    4
                                                                                           0
             0
                                        4
                                                       4
                                                              4
                                                                            4
                                3
## 2018
                   0
                         0
                                       10
                                              16
                                                     19
                                                              0
                                                                     0
                                                                            0
                                                                                    0
                                                                                           0
## 2019
                         3
                                 0
                                               0
                                                      0
                                                              0
                                                                     0
                                                                                           0
             0
##
         dev39
                dev42 dev45 dev48 dev51
## 2016
             -8
                     0
                             2
## 2017
              0
                     0
                             0
                                    0
                                           0
## 2018
                             0
                                    0
                                           0
## 2019
                     0
                                    0
                                           0
              0
                             0
```

```
## [1] -20
```

```
## 2019Q3

## 2016 12947

## 2017 272

## 2018 922

## 2019 121
```

```
## 2019Q4

## 2016 12949

## 2017 276

## 2018 941

## 2019 124
```

The result for Sweden Reconciliation

```
## [1] 28
```

Summary for Reconciliations of Germany, France and Sweden

```
## Country Recon_Difference
## 1 Germany 548
## 2 France 130
## 3 Sweden 28
```