coverage - 100.00%

```
Files funcs_for_churning_data.R
```

```
# creates new churned data set
       generate_after_churn_new_data <- function(data, churn){</pre>
2
3
         # modify data for ecdf
4 1x
         data <- modify_data_for_ecdf(data)</pre>
5
         # orders the diff_btwn_dates_in_days in increasing order based on the days
         data[order(data$diff_btwn_dates_in_days, decreasing = FALSE), ]
6 1x
   1x
         ecdf_percentiles <- ecdf(data$diff_btwn_dates_in_days)</pre>
8 1x data <- data%>%mutate(churn_probabilities
9 1x
                              1 - ecdf_percentiles(data$diff_btwn_dates_in_days))
         # orders new dataframe by customer_id for neatness
10
11 1x data[order(data$customer_id, decreasing = FALSE), ]
12
13
         # add churn flag
14 1x data <- add_churn_flag(data)
15
16
         # writes new dataframe to file
17 1x write.csv(data, "Cleandata_after_churn.csv", row.names = FALSE)
18
19 1x return(data) # for-testing purposes
20
     }
21
22
      add_churn_flag <- function(data){
23 2x ecdf_percentiles <- ecdf(data$diff_btwn_dates_in_days)
24 2x data <- data%>%mutate(ecdf_probabilities = ecdf_percentiles(data$diff_btwn_dates_in_days))
25 2x data <- transform(data, churn_flag= ifelse(ecdf_probabilities>0.2, 0, 1))
26 2x return(data)
27
28
29
      # Adds a column for number of days since each customer visited from first who stopped
30
       modify_data_for_ecdf <- function(data){</pre>
31 2x minDate <- min(data$max_arvl_dt)
32 2x data <- data%>%mutate(diff_btwn_dates_in_days =
33 2x
                                as.numeric(difftime(max_arvl_dt, minDate, units = "days")))
34 2x return(data)
35 }
```

-- Testing UnitTesting.R ------

```
FAIL 0
        WARN 0
                 SKIP 0
                          PASS 0 ]
                          PASS 1 ]
FAIL 0
        WARN 0
                 SKIP 0
FAIL 0
        WARN 0
                 SKIP 0
                          PASS 2 ]
                 SKIP 0
                          PASS 3 ]
FAIL 0
        WARN 0
FAIL 0
        WARN 0
                 SKIP 0
                          PASS 4
                 SKIP 0 | PASS 5 ]
FAIL 0
        WARN 0
                 SKIP 0 | PASS 6 ]
SKIP 0 | PASS 7 ]
FATL 0
        WARN O
FAIL 0
        WARN 0
FAIL 0 | WARN 0 | SKIP 0 | PASS 8 ] Done!
```

Test complete