Draw Down w.r.t. FD

It’s assumed you are familiar with very basic trading concepts: mainly buy, sell and thus pnl. We will assume day trading for the purpose of this exercise where all positions are closed by end of day and we have a pnl number for the day. This daily pnl time series will be the input.   
  
Please read about equity-curve, drawdown (DD) on google if not already familiar with. We are interested in our trading account balance. Daily pnl gets credited to or debited from the account. One can plot x-axis as date and y-axis as account balance, this is the “equity-curve” for our purpose. Whenever there is a -ve pnl, balance goes down, i.e. in DD, till account balance makes a new high, i.e. out of DD. This duration between two consecutive peaks is DD streak/duration (DDS)

Now we introduce a slight twist. We want to measure account DD w.r.t. a fixed deposit. e.g. let’s say FD is paying 0.01% return every day then whenever pnl < 0.01%, it goes in DD. To come out of DD new peak has to be > (previous peak + DDS\*0.01).

Given a daily pnl time series and daily FD rate, task is to find

* Maximum DD and maximum DDS (w.r.t. FD). Note that they might occur at different times, Max DD doesn’t mean DDS was maximum or vice-versa
* DD streak stats
* Profit streak stats

Some variables/conditions are not (well) defined, e.g. what’s the initial account balance, what about FD return on trading holidays, what are streak stats etc. This is intentional and you are expected to make wise and practical inferences & assumptions. Please clearly state any such assumptions made. Please use python and pandas.