**FIRST iteration just daily,   
THEN the slightly more complex periodicities (which would be the same algorithm between eachother, but just with different frequency),  
THEN MAYBE also threshold-based, and the combination of periodicity+threshold.**

When it comes to rebalancing investment portfolios, there are typically two main techniques used: periodic rebalancing and threshold rebalancing.

1. Periodic Rebalancing: This is a method in which the portfolio is rebalanced at regular intervals, such as quarterly, semi-annually, or annually, to maintain the original asset allocation. This is a straightforward approach and relatively easy to implement, but the drawback is that it doesn't consider changes in market conditions. So, if the market is particularly volatile, this method may not be as effective.
2. Threshold Rebalancing: This method involves rebalancing the portfolio whenever an asset's weight deviates from the target allocation by a certain predefined percentage. This threshold is often set around 5% but can vary depending on the investor's risk tolerance and transaction costs. This approach is more responsive to market conditions but can lead to more frequent trading and hence potentially higher transaction costs.

In practice, many investors and fund managers use a combination of both approaches. They might review their portfolios periodically (e.g., quarterly or annually) and then only rebalance if the deviation exceeds a certain threshold.

The choice of rebalancing frequency or threshold would depend on a variety of factors including transaction costs, the volatility of the assets, the correlation between the assets, and investor's risk tolerance. For instance, portfolios with high transaction costs or less volatile assets might require less frequent rebalancing. Similarly, a higher threshold might be appropriate for risk-tolerant investors or portfolios with lowly correlated assets.

From a data preparation perspective, these different techniques would indeed create a large number of different portfolios, each representing a different combination of rebalancing approach and asset allocation. You would need to simulate the performance of each of these portfolios over your historical data to create the necessary features for your analysis.

ANSWER TO MY FOLLOW-UP QUESTION (5% or 5%-points?)

*When referring to threshold rebalancing, the percentage is typically a deviation from the target allocation, not from the total. So in your example with a 20/20/20/20/20 portfolio, if you set a 5% threshold, you would rebalance if an asset's allocation deviates by more than 5 percentage points, i.e. falls below 15% or goes above 25% of the total portfolio value.*

*This ensures that the allocation does not deviate significantly from the intended strategic allocation, which could change the risk/return profile of the portfolio. The exact threshold may vary depending on the specifics of the portfolio, transaction costs, and the risk tolerance of the investor.*