**Algorithm to determine the Onset Data for a given season using by ACMAD.**

**Input: Historical Station Data, Analogue Years, Season**

**Output: Profile Graph, Onset Date by Year Data Frame**

**Begin:**

-Compute the daily mean (Using long time series)

-Compute the cumulative sum of the daily mean

-Compute 125% and 75% cumulative sum of the daily mean

If (Maximum cumulative sum of the daily mean >100mm)

- Determine the mean onset date using the cumulative sum of the daily mean (Where it reach 50 mm).
- Determine the late onset and earlier onset using 75% and 125% cumulative sum.
- Using Analogue years and current years
    1. Start the cumulative sum 30 days before the mean onset date for all the analogue and current year.
    2. Determine the mean onset for the analogue years where cumulative reach 50mm
    3. Check if cumulative sum of the current year is greater than 50mm
        - The season started then determine the onset date
    4. If the cumulative sum of the current year is less than 50mm
        - The onset date is unknown (N/A) then the station is on onset forecast state.

**End.**