This work deals with extensions of classical exponential smoothing type methods for univariate time series with irregular observations. Extensions of simple exponential smoothing, Holt method, Holt-Winters method and double exponential smoothing which have been developed in past are presented. An alternative method to Wright's modification of simple exponential smoothing for irregular data, based on the corresponding ARIMA process, is suggested. Exponential smoothing of order m for irregular data as a generalization of simple and double exponential smoothing is derived. A similar method using a DLS (discounted least squares) estimation of polynomial trend of order m is derived as well. In all cases the recursive character of these methods is preserved making them easy to implement and high computationally effective. A program in which most of the methods presented here are available is a part of the work. Some numerical examples of their application are also included.