

Practical-3

Consider the following datasets from the R library and write R code to decompose the time-series data into its trend, seasonal, and residual components. Furthermore, identify the dominating component(s) in the dataset:

- (a) Nottem data
- (b) AirPassengers data

Practical-4

For a given dataset of the US Population (in millions), write the R code to:

- (a) Import the data as a time series object.
- (b) Identify the dominating component(s) in the data set.
- (c) Apply a square root transformation to the original data set.
- (d) Estimate the linear trend present in the data set.
- (e) Remove the estimated linear trend from the data set.

Year	Population
1970	3929214
1971	5308483
1972	7239881
1973	9638453
1974	12860702
1975	17063353
1976	23191876
1977	31443321
1978	38558371
1979	50189209
1980	62979666
1981	76212168
1982	92228496
1983	106021537
1984	123202624
1985	132164569
1986	151325798
1987	179323175
1988	203302031
1989	226542203
1990	248709873