1. Equation for Seasonal, Trend, Irregularities, and Cyclic for both the additive and multiplicative approaches

Secular trend: T_t
Seasonal variations: S_t
Cyclical fluctuations: C_t
Irregular variations: I_t

1.Additive model:

$Y_t = T_t + C_t + S_t + I_t$

The four components are assumed to be independent of one another.

2.Multiplicative model:

$Y_t = T_t \cdot C_t \cdot S_t \cdot I_t$

How to Choose Between Additive and Multiplicative Decompositions
- The additive model is useful when the seasonal variation is relatively constant over time.
- The multiplicative model is useful when the seasonal variation increases over time.

2. Name of package used for visualizing medical data

VTK (Visualization Toolkit)