

## QBUS6840: Tutorial 7 Tasks

In the first task of Week07 tutorial document, we have learnt how to manually smooth a time series data with Holt-Winters method.

Continue with the week07 tutorial:

1. In the `addSeasonal()` function, change the alpha value from 0.1 to 0.8, what you could observe?
2. In the `addSeasonal()` function, change the beta value from 0.1 to 0.8, what you could observe?
3. In the `addSeasonal()` function, change the gamma value from 0.1 to 0.8, what you could observe?
4. Report the best fitting alpha, beta and gamma value of calling the `ExponentialSmoothing()` function. Then take these best fitting parameters as input of the `addSeasonal()` function. Compare your outcome of this manually defined function and the `ExponentialSmoothing()` function.
5. Based on the given sample code, could you please manually implement a Holt-Winters' multiplicative smoothing by changing the calculation steps in `addSeasonal()` function? Then compare your result with the `ExponentialSmoothing()` function.