Treasury Yield Curve

There are four elements in interest rate: zero coupon rates (or zero rates), discount factor, par yields, and forward rates. The derivation of one of these element is conveniently sufficient for the determination of the other three elements. Each interest rate definition is derived from specific representations of bond price.

The zero coupon rate or zero rate, the most common form of interest rate, is the yield implied by the different between a zero coupon bond's current purchase price and the value it pays at maturity. A given zero rate applies only to a single point in the future and, as such, can only be used to discount cash flows occurring on this date. Zero rates can have different compoundings: continuously, semi-annually, annually, etc. The continuously compounded zero rate has the simplest expression and computation mathematically.

The discount factor for a corresponding term to maturity is equal to exp(-Z*T), where Z is the continuously compounded zero rate from 0 to T and T is the maturity date. The calculation of zero rates and their associated discount factors is essential for asset pricing.

Unfortunately both zero rates and discount factors prevailing in the market are not observable for all maturities. You need tobootstraps treasury benchmark curves to generate treasury yield curves (or treasury zero rate curves).

Treasury yield curve or treasury zero coupon yield curve is the term structures of treasury yields-to-maturity. The yield is also called the zero coupon rate or the implied forward rate.

Treasury yield curves are bootstrapped from treasury benchmark curves that contain the most actively traded treasury bills or bonds at some maturities.

Reference:
https://finpricing.com/lib/EqRangeAccrual.html