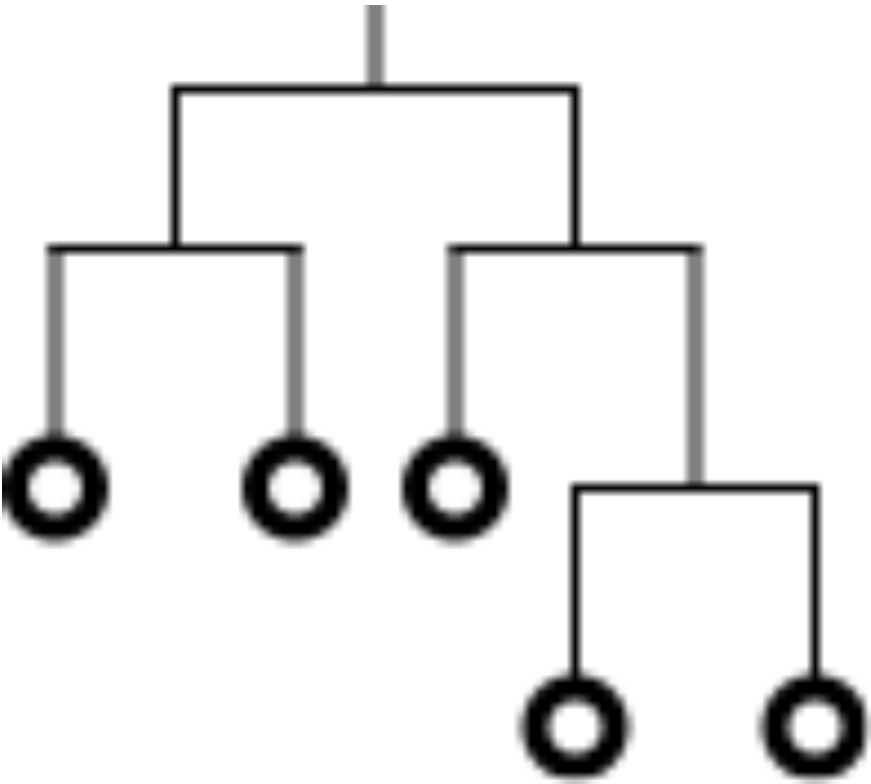


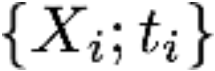






Numerical Binning (Histogramming)

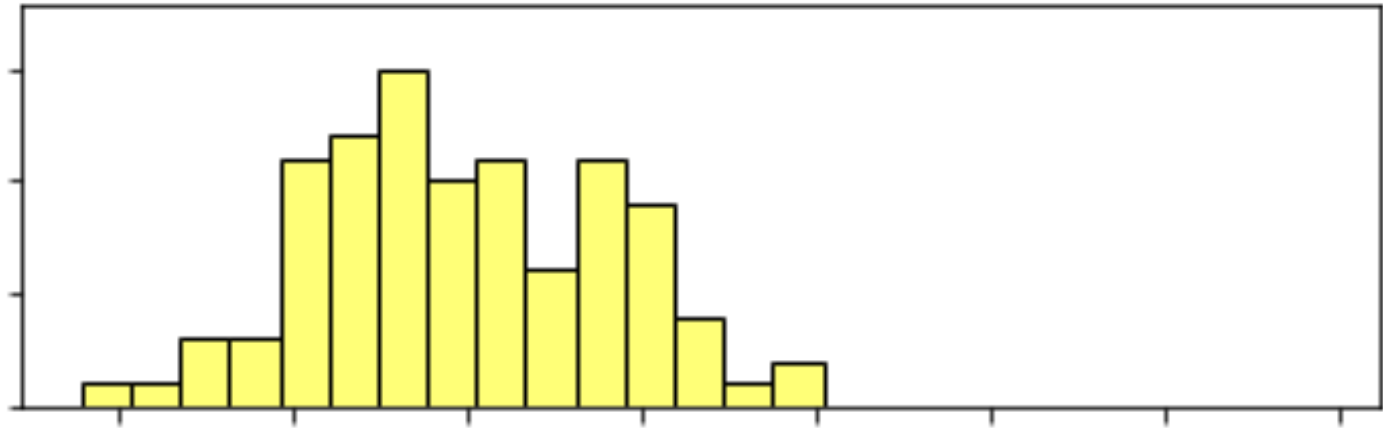














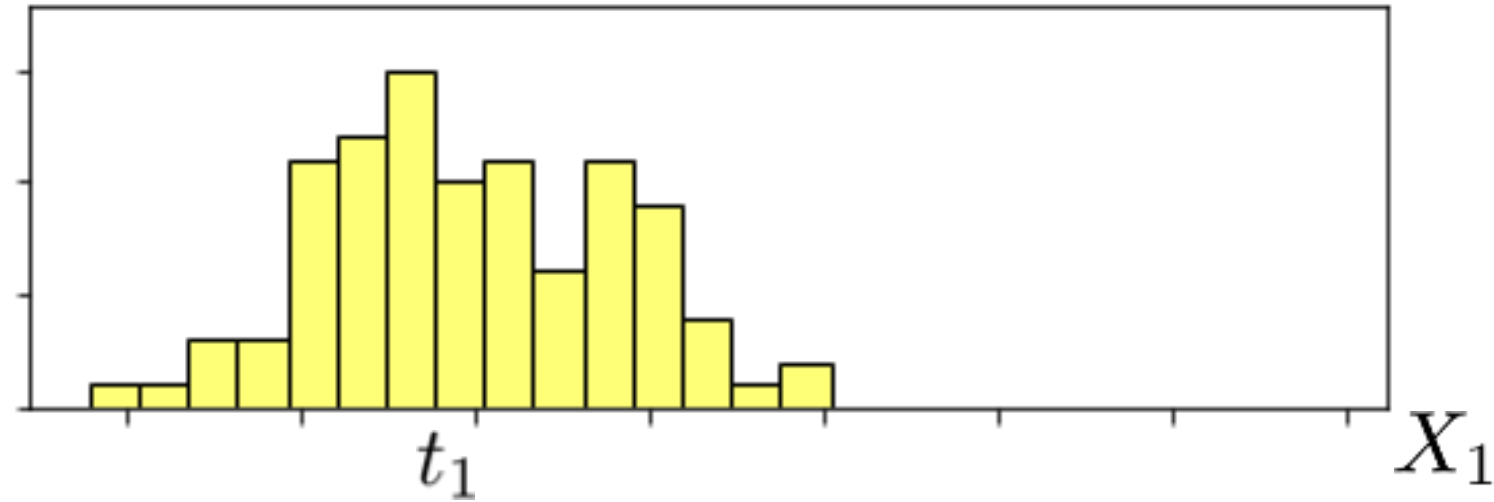
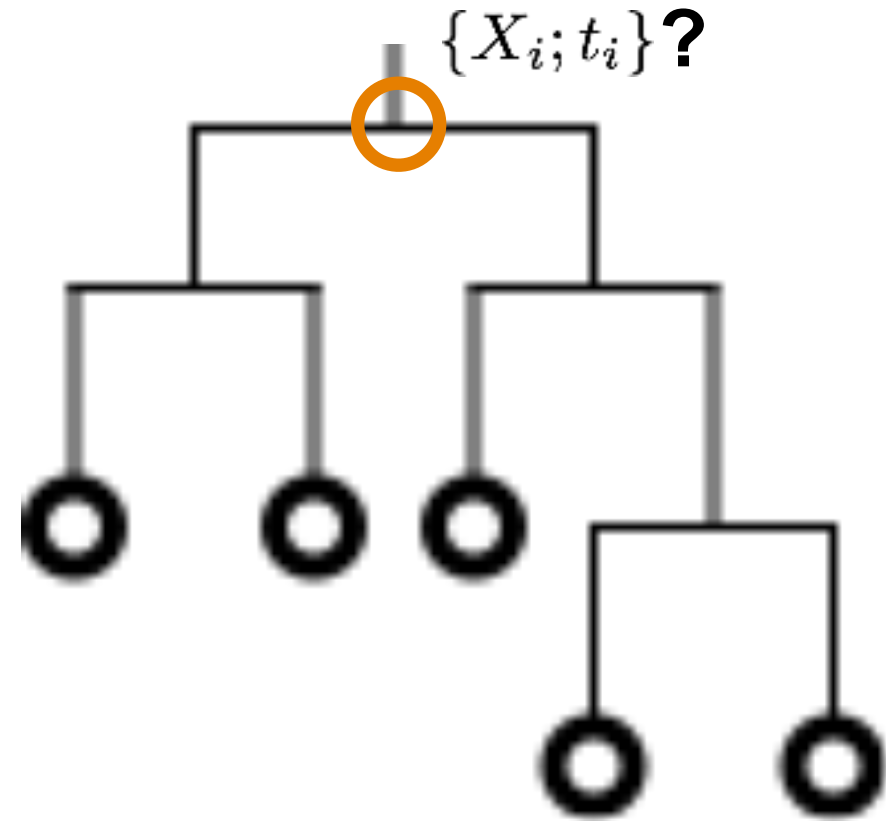


- **nbins**: number of bins in histogram
- **nbins\_top\_level**: number of bins to use at the top node, then halve at each ensuing level
- **histogram\_type**: method for binning {Uniform Adaptive, Random, QuantilesGlobal, RoundRobin}

# Categorical Binning

- Lexicographical ordering (i.e. alphabetical ordering)
- Example: {Red, Blue, Yellow, Orange, Purple, Green}
  - Lexicographical order: {Blue, Green, Orange, Purple, Red, Yellow}
  - **nbin\_cats = 2**: {Blue, Green, Orange}, {Purple, Red, Yellow}
  - **nbin\_cats = 3**: {Blue, Green}, {Orange, Purple}, {Red, Yellow}
  - **nbin\_cats >= 6**: {Blue}, {Green}, {Orange}, {Purple}, {Red}, {Yellow}

# Numerical Binning (Histogramming)



- **nbins**: number of bins in histogram
- **nbins\_top\_level**: number of bins to use at the top node, then halve at each ensuing level
- **histogram\_type**: method for binning {Uniform Adaptive, Random, QuantilesGlobal, RoundRobin}