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Clear Globals();

dlg = Column Dialog(
  yCol = Col List( "Variable",
    Data Type( Numeric ),
    Min Col(1),
    Max Col(2)
  ),
  Line Up( 2,
    "Number of Samples", k = Edit Number( 2000 ),
    "Quantile to Bootstrap", q = Edit Number(.10)
  ),
  V List(
    "Demonstration",
    demo = Radio Buttons( "Test Single Quantile", "Compare Two
Quantiles" )
  ),
  "", "Select columns for resampling demonstration"
);

If( dlg["Button"] == -1, Throw( "User cancelled" ) );
Remove From( dlg ); Eval List( dlg );

If( demo == 2 & N Items( yCol ) != 2,
  Dialog(
    "Only one column provided to compare two quantiles", "",
    Button( "OK" )
  );
  Throw( "Only one column provided to compare two quantiles" );
);

dt = Current Data Table();
nn = N Row();

// create containers for resampling results.
m = J( k, 1, . );

// get 'population'.
y = dt << Get As Matrix( yCol );

// collect sample statistics.
Choose( demo,
  // test one quantile.
  y1 = y[0,1]; // just use the first column.
  For( s = 1, s <= k, s++,
    m[s] = Quantile(q, y1[ J( nn, 1, Random Integer( nn ) ) ] ) );
  ),
  // compare two quantiles.
  y1 = y[0,1];
  y2 = y[0,2];
  For( s = 1, s <= k, s++,
    m[s] = Quantile(q, y2[ J( nn, 1, Random Integer( nn ) ) ] ) -
Quantile(q, y1[ J( nn, 1, Random Integer( nn ) ) ] ) );
);

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);  
);  
  
// save and show the statistics.  
rdt = New Table( "Resample Results",  
  New Column( "Sample", Values( 1::k ) ),  
  New Column( "Quantile", Values( m ) ),  
);  
  
If( demo == 2,  
  Column( 2 ) << Set Name( "Difference" );  
);  
  
dist = rdt << Distribution( Y( Column( 2 ) ),  
  Moments(0) );  
dist << Set Title( "Bootstrap Statistics" );
```