CS494/594
Bioinformatics computing

Challenge #2

1. In your groups of 3-4 students, compute the full dynamic programming matrix aligning CATC to CTCGC with matches receiving a +1, mismatches receiving -1, and gaps with a penalty of -3.

2. Compute the full dynamic programming matrix aligning CAT to ACAT using end-gap free alignment and the parameters from Lecture 4: Match +5, mismatch -2, gap -3.

3. Compute the full dynamic programming matrix for local alignment using the same example in Lecture 4: CTACT with ATACG and the same parameters as #2.

4. Attempt at least one of the simple dot plots from Lecture #5 (I recommend slide 13). As a group, discuss what (if anything) is interesting about your plot.