Write a program that reads the NASA polynomials from the attached therm.dat file. The program should be capable of calculating the following

- 1. Pure species thermodynamic properties.  $C_{pk}$ ,  $H_k$ ,  $S_k$
- 2. Mixture properties *Cp*, *H*, *S*
- 3. The chemical species and their composition that are present in the mixture and the T,p, conditions may be read from an input file or from user input in the form of a named tuple or Dictionary