* Short and to the point (max 10 pages of text - excluding graphs, tables, formulas etc)
* show software design and (filter) calculations
* show workflow structure and planning
* discuss used algorithms and show the theory+ formulas!
* discuss implementation in software (using Python)
* discuss the learning Goals from ch. 0.1 of the study guide
* discuss the research questions from the above assignment
* add a schematic overview of the contribution of each student individually

1. Try to filter the audio-recordings such that only clear noise free bird songs remain. Use for this purpose the discrete filtering techniques as taught in the DSP course
2. Discuss the pro’s and con’s of the filtering techniques applied for the bird song(s)
3. One of the recordings contains mulitple birds. Think of ways if it is possible to extract a single bird song
4. Detect the kind(s) of singing birds you hear (*there are lots of websites containing examples of bird songs*)
5. After filtering, apply Fourier spectral analysis to the individual bird songs of the recordings and compare this with recordings you find in the internet on which you also apply spectral analysis.
6. Discuss if ‘spectral recognition’ can be used to obtain the kind(s) of bird(s) from a recording. Is it unique? Focus on why it can or can not from a technical point of view.
7. *Hint*: See if spectrograms can be of interest for this assignment

* Demonstrate and explain correct operation and implentation at the scheduled time
* Hand in report + software before the deadline
* Do this via uploading Blackboard DSP assignment (or via email)
* Indicate project group number + names in the title