Instructions for the final project report (content and writing style)

General Instructions:

1. The size of your paper should be at least 2,000 words
2. You can write your paper in either English or Greek. English is preferred to make it publicly available.
3. Your report must follow the structure of a research paper/technical report.

The following parts are required in your report

1. An Abstract of at most 250 words:
   The abstract is a "self-contained" summary of your work. It should briefly say what you did, why you did it (the motivation), and what are the main results you obtained.

2. The first section is the Introduction:
   The Introduction is one of the most important parts of a paper and it is usually written last, after all the other sections have been written and we have a complete view of the paper. It is also the part of the paper most likely to be read in full. It should accomplish the following:
   - Introduce the reader to the topic of the work. Give the broader context and provide motivation as to why the field is important.
   - Explain the main goal(s) of the work; Provide motivation as to why it is important; Explain why it has not been addressed so far (how it differs from the state of the art).
   - Explain the work in brief, giving the main 2-3 ideas.
   - Discuss briefly the results obtained.
   - Summarize the main contributions of the work.

3. The last section has the title Conclusions, or Conclusions and Future Work:
   In the last section you should present with clarity your results and the conclusions you draw from the work. It should not yet another summary of the report, but rather draw a conclusion as a result of the work presented in the paper. Optionally you can also mention some ideas/suggestions for future work, or possible extensions of the current work.

4. In-between the Introduction and Conclusions sections, there should be 2-3 more sections that describe what you did. For example you could have a section for each of the following: your model; your implementation details; your experiments; your theoretical analysis and your proofs, etc. More specifically:
    - You should clearly describe the problem that you are trying to solve, the methodology you use, the design of your experiments, and a discussion with the results that you obtained.
    - The experimental analysis should always clearly state: what is the goal of the experiments; what are the datasets you are using; what are the algorithms you are testing; what are the input parameters and the metrics for the evaluation.
    - For the projects that use some system (e.g., Pregel, GraphChi), give a short review of the system, the algorithms that you implemented, the parameters of the system that you studied, and the measurements that you made. It would be good to have two competing implementations (one using the system, and one without), or two algorithms for the same problem that show the advantages and disadvantages of the system.
    - For the projects that involve data collection (e.g., Flikr, Twitter, FourSquare, Facebook), you should clearly describe the data collection process, and the characteristics of the collected data.
    - For projects that modify an existing algorithm or propose a new one, the problem formulation is important and it should be done as formally as possible.

5. (Optional) The Related Work section where you relate your work to other work in the literature. Do not copy this section from the main reference paper for your project! This will have a negative effect on your grade. Mention only what you have read for this project.

Additional instructions and advice:

- Do not leave the writing of the report for the very last minute. It will take several days, and it cannot be done just before the deadline. We recommend that you write the report as you do the work for the project (implementation, experiments, algorithm design). Ideally, the outline of the report should come before the implementation of the project. Most questions about the modeling of the problem and the algorithm design should have been answered before you start the experiments.
- Typos and grammatical errors have a negative effect on the reader and make your paper look sloppy. Always run spell-check before you hand in!
- Use of parts from existing work should be accompanied by the appropriate citation (e.g., “blah blah [1]”, or “as it is mentioned in [1], blah blah…”). NEVER copy-paste whole parts from existing work! (It is considered plagiarism and will result in zero grade!). You can (and should) of course look at related papers to get ideas about the structure and the content of your work.

Further readings and resources on how to write a technical report:

- Patrick Valduriez, Hints to write technical papers: http://www.sciences.univ-nantes.fr/info/perso/permanents/valduriez/attaches/hints.pdf
- Some nodes from Panos Vassiliadis about MSc thesis writing: http://www.cs.uoi.gr/~pvassil/linx/localCopies4grads/MSc_guidelines_byPV.pdf
- Douglas Comer, How To Write A Dissertation or Bedtime Reading For People Who Do Not Have Time To Sleep: http://www.cs.purdue.edu/homes/dec/essay.dissertation.htmlhttp://www.cs.purdue.edu/homes/dec/essay.dissertation.html
- CS Paper Generator - πως να μη γράψετε την εργασία :-): http://pdos.csail.mit.edu/scigen/