How to write a good project report: IAT 355

At the top level, a typical report is organized in the following way.

1. Overview. (This is a couple of paragraphs - no more - that summarizes the content of the report. It must be comprehensible to someone who has not read the rest of the report.)
2. Introduction. (The scope of the project, setting the scene for the remainder of the report.) This should include:
    a. Scope:What is the general scope of the project? E.g. "This project is designed to help people understand issues of how access to drinking water affects health in different parts of the world".
    b. Users/Audience: Who is the audience or stakeholders? This will help in determining how appropriate the data tools are. For example, if your visualization is aimed at helping policy makers determine how health spending and infrastructure relates, then you will be working with different data and reports than if you are providing visualization tools for engineers who need cost projections and distance metrics to determine best approaches.
3. Problem/Domain Questions. What are the specific questions your audience can ask of the tool you have begun to build? That defines what your design choices are. For example, a specific question related to water access might be:
    a. "How does access to drinking water differ in countries, and is there a relation to specific health markers (infant mortality, disease, etc)"?
    b. has access to drinking water changed over the last <n> time periods?
    c. Does access to drinking water depend on income ?

    Etc.
4. Data. Describe your data . This includes:
    a. Sources (datasets, host organizations)
    b. Dimensions you are using ,and types of these dimensions
    c. Any "cleaning" or other manipulations you have made. You will almost certainly have selected only a subset of the available data, and perhaps you have combined data from two different sources to show wha the visual analytics WOULD support if you had the right data. Remember that the data do not have to be COMPELTELY REAL as long as they are representative, but you DO need to explain anywhere you have done this. For example: "Because we did not have location for emergency vehicles across BC, we substituted simulated locations using the centre of each community".
5. Visualization design. Show your system of visualizations. Describe the interactions. Justify your design choices (NOT proves, but choice of visual feature and idiom).
    a. How do they relate to your problem questions? E.g., we used a line graph to enable users to see patterns over time.

    b. How do they work together? E.g. the user can slide a control over the line graph to see individual snapshots of data in connected views, such as bar graphs for comparison or scatter plots for correlation.
6. Further work.
    a. What did you intend to do, but did not manage to complete? A description can at least tell us what your design was meant to achieve.
    b. What didn't work? Having made and implemented a design choice, what was not successful about it? What would you do differently? How did you find this out?
    c. What would you do in the next version? How could your work could be continued or developed? Be imaginative but realistic.
7. Conclusions. (This is similar to the abstract. The difference is that you should assume here that the reader of the conclusions has read the rest of the report.)
8. References and appendices.

General report writing guidelines can be found here:
http://users.iems.northwestern.edu/~hazen/Writing%20Project%20Reports%202004a.pdf