Project report rubrics

Note. These rubrics split the assessment of a report into five components: introduction, report content, conclusion, Python code, and presentation. In general, the indicated weights will be used to compute the overall report grade based on the grades for each component. However, if one component of the report is much weaker than the other ones, the overall report grade may be adjusted beyond the stated weight of the weak component. For example, a report with a perfect Python code but just a few words of the narrative will get a low grade – possibly even a failing one. Similarly, a report with a great narrative and no usable code will get an F.

Introduction (10%)

	Very good	Good	Fair	Deficient
Narrative	The report narrative is very well developed, engaging and pleasant to read. It starts with an introduction, which explains the context and goals of the project.	The report narrative is well written and engaging, starting with an introduction which explains the context and goals of the project.	There are significant issues with the narrative. For example, the introduction or the body of the report is not well developed, or there are several passages which are confusing.	The narrative has significant flaws – it is poorly developed, confusing, etc.

Report content (30%)

	Very good	Good	Fair	Deficient
Scope	The content of the report meets all project objectives and develops them well.	The majority of the project objectives have been attained, but some facets could be explored more fully.	Most of the main objectives of the project have been achieved, but significant parts are missing or are poorly developed.	The majority of the project objectives have not been achieved.
Narrative	The report narrative is very well developed, engaging and pleasant to read. The narrative guides the reader through the exploration of the project, in particular explaining the purpose of each piece of code. The report tells a story which is well designed, interesting and logical. It uses accurate and precise language.	The report narrative is well written and engaging. The role of each piece of code is explained. Some aspects of the narrative could be developed better or their presentation could be improved, but this does not create a significant distraction.	There are significant issues with the narrative. For example, there are several passages which are confusing. The significance of various pieces of code is left without explanation or it is explained poorly. Major points of the narrative can be understood, only with some effort. The narrative seems mechanical or confusing.	The narrative has significant flaws – it is poorly developed, confusing, etc.
Analysis	The report clearly states its observations and conclusions. The conclusions are supported by computations done using the code included in the report, and the connection between the computations and conclusions is made clear. The analysis provides an interesting and well-developed exploration of the project.	The report clearly states its observations and conclusions. The conclusions are supported by the computations done using the included code. There are some minor deficiencies – e.g. some aspects of the project are not fully explored, there are some minor logical flaws.	The report states its observations and conclusions, but they are lacking in a significant way. For example, some observations made in the report are illogical or not supported by the included computations, some significant facets of the project are left without any analysis, etc.	The report presents no conclusions, or presents very few of them with weak computing evidence supporting them and possible major logical mistakes.

Conclusion (10%)

	Very good	Good	Fair	Deficient
Narrative	The report includes a concluding section that summarizes the key aspects of the report. The narrative is very well developed, engaging and pleasant to read.	The report includes a concluding section that summarizes the key aspects of the report. The narrative is well written and engaging.	There are significant issues with the narrative. For example, parts of the conclusion do not tie in with the preceding sections.	The narrative has significant flaws – it is poorly developed, confusing, etc.

Python Code (30%)

	Very good	Good	Fair	Deficient
Correctness	All code works as it is supposed to.	All code executes without errors. There are minor issues with correctness of the results it produces.	All code executes without significant errors, but there are issues with correctness of some of the results it produces.	The code produces execution errors or generates output which is wrong in a major way.
Completeness	All code needed to accomplish the goals of the project is present. All code is relevant to the project.	There are minor issues – e.g. some included code is not needed, or code needed to complete some minor facet of the project is missing.	The code accomplishes the majority of the tasks related to the project, but significant parts are missing or are irrelevant.	The included code does not accomplish a major part of the project.
Readability	The code is easy to read. It is split into relatively short code cells and organized into logical units (using functions etc.). Variables have meaningful names. Code functionality is illustrated with toy examples as appropriate.	The code is readable without major difficulties. Some parts can be improved e.g. by using functions, splitting longer code blocks into shorter cells, etc.	There are significant issues with the code organization. E.g. some parts of the code are repeated several times instead of being wrapped in a function, all code is placed in a few long code cells, etc.	The code is very difficult to read – convoluted, repetitive, etc.
Documentation	The code is well documented with code comments.	Code comments are mostly sufficient, minor improvements would make them better.	There are some code comments, but they are either insufficient or not relevant in a significant way.	None or very few useful comments are included.

Presentation (20%)

	Very good	Good	Fair	Deficient
Organization	The report is organized into logical sections, with good section heading. If the report quotes external sources they are properly referenced.	The report organization is mostly good. Some improvements in the subdivision of the report into sections, citations, etc. would make it better.	Major elements of the report organization are present, but they are awkward or not well developed. Logical flow is weak. There are few section headings, or the section headings are not appropriate.	The report lacks discernible organizational structure. Internal division is unclear or illogical. There are no or very few section headings.
Language	The report uses all conventions of the standard written edited English. All terminology is used correctly and appropriately. There are very few, if any, grammar, spelling, or punctuation errors.	The report exhibits good control over the standard written English. There are occasional issues with grammar, spelling, punctuation, or the technical terminology, but not in a way which creates a significant distraction.	Some language issues occur at the level which makes them distracting, but not confusing.	Language issues make the report difficult to read and understand.
Typesetting	The report has the correct choice of fonts for the text, section, and subsection headings, etc. Mathematical formulas are typeset using LaTeX. Tables and images (if any) are well formatted.	There are some issues with text formatting, LaTeX use, etc., but not to the extent which distracts from the content of the report.	There are significant issues with the formatting of the text – choice of fonts, consistent and correct use of LaTeX in math formulas, etc.	Text formatting issues make the report very hard to read.
Plots	All plots are well connected to the report narrative, well designed and easy to understand. Each plot is equipped with a title, axis labels, legend, etc. – as appropriate.	There are minor issues with the design or formatting of the plots, but they do not distract from the report content or make it difficult to understand. Plots are well connected to the report narrative and illustrate it well.	Most of the expected plots are included. The plots are relevant to the content of the report, but there are significant issues with their design and formatting to the extent which makes it difficult to interpret them	Expected plots illustrating the report are missing or incorrect or poorly formatted in a way which makes them not very usable.
Code output	Output of code cells is well formatted and easy to understand. All relevant output is displayed, and there are no unnecessary printouts.	Code output is mostly fine, but there are occasional issues: printouts which are not needed or not well formatted, etc.	There are some code output issues which distract from the narrative of the report: occasional unnecessarily long printouts, unformatted output difficult to read, etc.	There are several instances of careless code output: very long printouts serving no purpose, unformatted, unreadable printouts, etc. Output which should be displayed is missing.