



Guidelines for MATLAB Experiment Report File

MATH 2134K

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Title Page

Write the title of the experiment (with the specific values of relevant variables), with your name, SAP ID, batch and programme of study, date of completion of the experiment as well as affiliation.

Abstract

Give a summary of the experiment, including the objective, methods (which should include all syntactic elements, such as in-built functions used) and any key findings/insights.

Introduction

Provide background information about the experiment and its relevance. Keep this section to a maximum of 250 words. State the objectives and hypothesis (if applicable) of the experiment.

Methodology

Describe the algorithm used in your computation, before putting the code for your program. Be rigorous and remember to put pictorial records from the command window of important stages of the experiment.

Save your worksheet as `MATLAB Experiment_<Experiment No.>_<Name>` and send it to mrityunjay.majumdar@ddn.upes.ac.in

Results

Present the results of the experiment in a clear and organized manner. Use any tables, graphs, and/or figures generated using MATLAB to illustrate the findings. Provide numerical data (such as the relevant .dat, .txt, etc. lines) and statistical analysis, if relevant.

Discussion

Interpret the results and compare them with expected outcomes or theoretical predictions, with any reference to precision and/or (sources and nature of) errors that may be required to be highlighted. You can also relate the findings to existing literature or theoretical frameworks. Keep this section to a maximum of 200 words.

Conclusion

Summarize the main findings and their implications, with a clear statement of the specific values of variables initialized and/or used during the experiment. Discuss the significance of the results and how they could contribute to the field of study, with possible suggestion of potential ways for further research or improvements to the experiment.

References

Include a list of references cited in the report, following a consistent citation style (e.g., APA, MLA).

Formatting Guidelines

1. Use a clear and legible font with appropriate font size (usually 12pt).
2. Double-space the text and use 1-inch margins on all sides.
3. Include page numbers and a table of contents if the report is lengthy.

Rubrics for Laboratory Experiment Evaluation

Category: Organization (5 marks)

5 marks: Code is organized into logical sections, code associated with a particular section is fully contained in that section, creativity shown in organizational aspects (such as with compactness of data structures).

4 marks: Logical sections are included, and most code is organized into sections according to its role, cohesion is present across sections, albeit with minimal creativity in organizational aspects.

3 marks: Logical sections defined, with low cohesion among these sections.

2 marks: Logical sections defined, with low cohesion within these sections.

1 mark: Logical sections defined, albeit haphazardly.

Category: Readability (3 marks)

3 marks: Consistent use of whitespace between logical chunks of code, between operators and parenthesis. Consistent formatting of comments.

2 marks: Minor formatting inconsistencies that may have negative impact on the ease of reading and understanding the code.

1 mark: Significant formatting inconsistencies that interfere with reading and understanding the code.

Category: Context (2 marks)

2 marks: Variable names and comments consistently use language related to the context of the problem and solution.

1 marks: Most variable names and comments use language related to the context of the problem and solution.

Category: Output (5 marks)

5 marks: Correct response to all parts of the question, figures show data appropriately (with all elements of the graph clearly delineated), data plotted look consistent with the problem statement and all data required to be analysed have been investigated, analytically and/or numerically.

4 marks: Correct response to most parts of the question, figures show data appropriately (with all elements of the graph clearly delineated), data plotted look consistent with the problem statement and most of the data required to be analysed have been investigated, analytically and/or numerically.

3 marks: Correct response to most parts of the question, figures show data (but elements of the graph are not clearly delineated), data plotted looks partially consistent with the problem statement and most of the data required to be analysed have been investigated, albeit partially, analytically and/or numerically.

2 marks: Correct response to some parts of the question, figures show data inadequately (with most elements of the graph unclearly delineated), data plotted look partially inconsistent with the problem statement and data required to be analysed have been investigated partially.

1 mark: Incorrect response to most parts of the question, figures poorly drawn and organized, data plotted is inconsistent with the problem statement and data-analysis has been done, but quite poorly.

Category: Runtime Execution (3 marks)

3 marks: Code runs, compiles and displays correct responses in run-time. Minimal to no errors in the coding.

2 marks: Code runs but with errors, and the problem-statement is only partially addressed.

1 mark: Code does not run in most parts and there are multiple errors that the student cannot track and resolve.

Category: Laboratory Report Record (2 marks)

2 marks: Report compiled and organized properly, and submitted in time.

1 mark: Report compiled and organized in an inadequate way, albeit submitted in time.