# EE 472 Lab 1 Introducing the Lab Environment

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#### 1 ABSTRACT

The abstract should provide a brief overview of the report. It should provide a summary of the main specific points for the introduction, the main tests and experiments, the results, and the conclusions. It is called an abstract because you can literally "abstract" sentences from the other sections.

Once again, this is not a narrative of your experiences as you executed the design. The abstract should mirror (albeit in a very condensed way) the content of your report.

#### 2 INTRODUCTION

Brief introduction and overview of the purpose of the lab and of the methods and tools used.

#### 3 DISCUSSION OF THE LAB

This section should include the following:

#### 3.1 Design Specification

In this subsection you will textually describe your client's requirements. What does he or she need in the project you are developing. If you are incorporating extra features or capabilities, please describe them clearly in this section.

Overall summary description of the module - 2-3 paragraphs maximum

Specification of the public interface to the module

- Inputs
- Outputs
- Side effects

Psuedo English description of algorithms, functions, or procedures

Timing constraints

Error handling

Animal	Description	Price (\$)
Gnat	per gram	13.65
	each	0.01
Gnu	stuffed	92.50
Emu	stuffed	33.33
Armadillo	frozen	8.99

Table 1: Example table.

#### 3.2 Software Implementation

What is your design????

Present your design starting from a top level functional view and potentially block diagram or high level architecture. Refine that view to present and explain each of the modules that comprise the major functional blocks. Discuss the flow of control through the design. Identify and discuss the specific processes/tasks you have implemented in your design. Explain your design choices.



Figure 1: A chick

#### 4 PRESENTATION, DISCUSSION, AND ANALYSIS OF THE RESULTS

Based upon the execution of your design, present your results. Explain them and what was expected, and draw any conclusions (for example, did this prove your design worked).

In addition to a detailed discussion and analysis of your project and your results, you must include all the answers to all questions raised in the lab.

#### 4.1 Analysis of any Errors

This one is obvious. Do this section as appropriate. If it improves the flow, it does not need to be a separate section and may be included in the presentation, discussion, and analysis of the results. However, it will still be graded separately and must be present.

# 4.2 Analysis of why the project may not have worked and what efforts were made to identify the root cause of any problems

State any problems you encountered while working on the project. If your project did not work or worked only partially, provide an analysis of why and what efforts were made to identify the root cause of any problems.

#### 5 TEST PLAN

Overall summary of what needs to be tested to ensure that your design meets the original requirements, 2-3 paragraphs maximum unless specified otherwise

#### **5.1** Test Specification

Annotated description of what is to be tested and the test limits. This specification quantifies inputs, outputs, and constraints on the system. That is, it provides specific values for each.

Note, this does not specify test implementation...this is what to do, not how to do it.

#### 5.2 Test Cases

Annotated description of how your system is to be tested against the test limits Note, this does specify test implementation...this is not what to do, this is how to do it based upon the test specification.

#### 6 SUMMARY AND CONCLUSION

You should know these sections very well, no need to explain. Note, however, that they are two different sections. The summary is just that, a summary of your project. It should loosely mirror the abstract with a bit more detail. The conclusion concludes the report, potentially adds information that is often outside the main thrust of the report, and may offer suggestions or recommendations about the project.

### A SOURCE CODE

# A.1 The first part

#### source.c

# A.2 The second part

#### source.c

```
/* Hello World program */

#include < stdio.h>

main()
{
    printf("Hello World");
}
```