Research Paper (Rename Appropriately)

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ABSTRACT

The abstract should be two paragraphs that summarize your research paper: the first setting up the background and the second summarizing what learned from the research.

Abstracts are read independently from the rest of the paper so you cannot cite any other papers in it. Study other abstracts in the papers you are reading to understand what an abstract should really means. **You must write the abstract in past tense and in third person.**

The abstract must make it clear what your report is about: the work that you did for your research, and it should be written up as a research report. Make sure you take credit for what you and briefly mention the work (research ideas, software, etc.) done by others.

The abstract is not an introduction or overview of your paper! It is a summary of your paper, which should include the background, context, content, and contributions of your report. It should typically be around 150-200 words.

KEYWORDS

Come up with your own keywords.

1 INTRODUCTION

Use this section to provide a short presentation of the research problem that your selected papers discuss, and why this problem(s) is important.

(For Phase 1–Proposal, write down the needed paragraph in this section. For the other sections, leave the section headers in place but delete the text within the sections. Of course, you must use BibTeX to generate the References section for your selected papers.)

Eventually provide the roadmap for the remaining sections of the paper. For example, you can state that Section 2 discusses the related work in the overall area of the problem and section 3 describes the research problem in detail, along with the proposed soultions. Section 4 discusses what you learned about solving the research problem, its current status and future work that is needed in the areas. Similarly, mention the other sections in your paper using appopriate references.

2 RELATED WORK

Use this section to present the literature survey of all the papers that focus on the selected research problem and others that address simlar problems. Show that you have a broad understanding of this research space.

3 RESEARCH PROBLEM

Use this section to describe the research problem and then present the different solution approaches in the selected papers. What do the authors agree are the common themes for this topic?

Table 1: Issue Resolution

Issue	Percentage	Summary
Issue 1	5%	Assign the best programmers
Issue 2	30%	Assign the new full-time hires
Issue 3	70%	Assign the new co-op students on this
Issue 4	90%	Can be kept on the back-burner for now

4 ANALYSIS

Use this section to analyze the rsearch problems and the different solutions that have been proposed; where do these methods fail? How well did the authors present and explain their work, and how important is the work to the body of knowledge? Also, discuss the current status and future prospects for this area.

5 LEGAL CONSIDERATIONS

Use this section to discuss legal issues relevant to your topic.

Use your general readings to guide the legal aspects of your discussion. Look at the laws that have been passed in recent years, and look at legislation that is being proposed in the space covered by your topic. Cite any significant laws, i.e., you need to have them in the list of references for them.

6 ETHICAL CONSIDERATIONS

Use this section to discuss ethical issues relevant to your topic.

Use the ACM Code to guide the ethical aspects of your discussion here [1].

Note. This section is not necessarily about what the papers cover, but about what legal and ethical considerations apply to the data and discussions that come out of the paper.

7 CONCLUSIONS

Use this section to summarize your conclusions. Describe what **you** now concluded about these selected papers based on your understanding.

You should also discuss possible future research directions for the selected topic.

TABLES, FIGURES, AND CITATIONS/REFERENCES - DELETE THIS SUBSECTION BEFORE ANY SUBMISSION

This unnumbered section is meant to provide you with some help in dealing with figures, tables and citations, as these are sometimes hard for people new to LaTeX. Your figures, tables and citations must be distributed all over your paper (not here), as appropriate for your paper. So here is a quick guide extracted from the ACM style guide.

Please delete this entire section before you make any submission! If I see this section in your report, you will lose points!!!

Tables, figures, and citations/references in technical documents need to be presented correctly. In proper technical English writing (for reasons beyond the scope of this discussion), table captions are above the table and figure captions are below the figure. So the issue resultion status of this nonsensical project is shown in Table 1. Note that tables are never above or below, as the typesetting is at liberty to place them anywhere meaningful

Note that figures in the research paper must be original, that is, created by the student: please do not screen-scrape and cut-and-paste figures from any other paper you have read. Just cite the figure in the paper and summarize what points you want to make.

When you need to cite any original figures in your own paper, they should be handled as demonstrated here. State that Figure 1 is a simple illustration used in the ACM Style sample document. Again, never refer to the figure below (or above) because figures may be placed by LaTeX at any appropriate location that can change when you recompile your source *.tex* file.

Figure 1: The cutest tiger in the world (JPG).

Finally, citing documents needs to be done properly too. For example, a paper by Mic Bowman, Saumya K. Debray, and Larry L. Peterson could be cited as Bowman, Debray, and Peterson [2]. A set of papers could collectively be cited as the literature in this area consists of several interesting papers [3, 4, 6]. One of the common types of citations these days is to items only posted on the Web such as this 2014 CMU SEI webinar by Dormann et al. [5].

You will find the BibTeX entries needed for many papers that are being cited at the ACM or IEEE digital libraries, or other sources on the web, otherwise you can write your own versions easily and add them to the $*.bib$ file in the folder. There are many sample bibtex template files that can be used to model your own references.

The list of all references will be generated in the standard ACM Reference style using LaTeX/BibTeX correctly. Note that you need to first the following sequence to get the paper compiled correctly:

(1) `latex` *researchpaper*
(2) `bibtex` *researchpaper*
(3) `latex` *researchpaper*
(4) `latex` *researchpaper*

REFERENCES

[1] Association for Computing Machinery. 2018. ACM Code of Ethics and Professional Conduct. ACM, New York. https://www.acm.org/code-of-ethics.
[2] Mic Bowman, Saumya K. Debray, and Larry L. Peterson. 1993. Reasoning About Naming Systems. *ACM Trans. Program. Lang. Syst.* 15, 5 (November 1993), 795–825.
[3] Johannes Braams. 1991. Babel, a Multilingual Style-Option System for Use with LaTeX's Standard Document Styles. *TUGboat* 12, 2 (June 1991), 291–301.
[4] Malcolm Clark. 1991. Post Congress Tristesse. In *TeX90 Conference Proceedings*. TeX Users Group, Cork, Ireland, 84–89.
[5] Will Dormann, Robert Floodeen, Brent Kennedy, William Nichols, Jason McCormick, and Robert C. Seacord. 2014. Heartbleed: Analysis, Thoughts, and Actions. CMU SEI Webinar Series, Software Engineering Institute, Carnegie Mellon University. http://www.sei.cmu.edu/webinars/view_webinar.cfm?webinarid=90499, Accessed August 20, 2016.
[6] Maurice Herlihy. 1993. A Methodology for Implementing Highly Concurrent Data Objects. *ACM Trans. Program. Lang. Syst.* 15, 5 (November 1993), 745–770.