Relatório Projeto IS

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*Abstract*—This document blá, blá, blá

This is the abstract of the paper…..

(Remember, a good abstract is equal to Zip(Introduction) + Zip(Conclusion). So, this is the last section to be written. Delete this. Always try to keep formatting present in the document. Delete this.).

Keywords—component, formatting, style, styling, insert

# Introduction

No âmbito da disciplina de Integração de Sistemas (IS) foi nos proposto criar um Service Oriented Middleware for Interoperability and Open Data (SOMIOD) com a finalidade de construir um middleware capaz de definir uma uniformização na forma como os dados são acedidos, escritos e notificados, independentemente do domínio da aplicação para isso utilizamos 3 protocolos muito bem conhecidos e com uma vasta documentação que são o xml para o envio de informação ,o http para a comunicação entre as aplicações e o MQTT para o envio de notificações, isto para ajudar no crescente aumento de dispositivos de Internet of Things (IoT) surge assim a necessidade destes dispositivos se comunicarem entre si ou com outros dispositivos, atualmente este processo de comunicação é dificultado pois está dependente de protocolos privados e de cloud services privados que tem um impacto negativo.

O projeto está a ser desenvolvido em C# e é composto por um SOMIOD e duas aplicações de teste: a APP\_A, que simula uma lâmpada inteligente, e a APP\_B, que representa um interruptor. Adicionalmente, foram criadas três aplicações específicas, uma para cada recurso suportado pelo SOMIOD: Applications, Controllers e uma aplicação para Datas e Subscriptions. Estas aplicações de teste permitem avaliar todas as opções de CRUD do SOMIOD.

# System Architecture

Uma imagem com texto, diagrama, captura de ecrã, Esquema

Descrição gerada automaticamente

Figura 1 – Arquitetura do sistema desenvolvido

## APP\_A

This is example text. Define abbreviations and acronyms the first time they are used in the text, even after they have been defined in the abstract. Abbreviations such as IEEE, SI, MKS, CGS, sc, dc, and rms do not have to be defined. Do not use abbreviations in the title or heads unless they are unavoidable.

## Component B

Use either SI (MKS) or CGS as primary units. (SI units are encouraged.) English units may be used as secondary units (in parentheses). An exception would be the use of English units as identifiers in trade, such as “3.5-inch disk drive”.

* Avoid combining SI and CGS units, such as current in amperes and magnetic field in oersteds. This often leads to confusion because equations do not balance dimensionally. If you must use mixed units, clearly state the units for each quantity that you use in an equation.
* Do not mix complete spellings and abbreviations of units: “Wb/m2” or “webers per square meter”, not “webers/m2”. Spell out units when they appear in text: “. . . a few henries”, not “. . . a few H”.
* Use a zero before decimal points: “0.25”, not “.25”. Use “cm3”, not “cc”. (*bullet list*)

## Component C

This is example text. The equations are an exception to the prescribed specifications of this template. You will need to determine whether or not your equation should be typed using either the Times New Roman or the Symbol font (please no other font). To create multileveled equations, it may be necessary to treat the equation as a graphic and insert it into the text after your paper is styled.

## Component D

This is example text. The word “data” is plural, not singular. The subscript for the permeability of vacuum **0, and other common scientific constants, is zero with subscript formatting, not a lowercase letter “o”.

* In American English, commas, semicolons, periods, question and exclamation marks are located within quotation marks only when a complete thought or name is cited, such as a title or full quotation. When quotation marks are used, instead of a bold or italic typeface, to highlight a word or phrase, punctuation should appear outside of the quotation marks. A parenthetical phrase or statement at the end of a sentence is punctuated outside of the closing parenthesis (like this). (A parenthetical sentence is punctuated within the parentheses.)
* A graph within a graph is an “inset”, not an “insert”. The word alternatively is preferred to the word “alternately” (unless you really mean something that alternates).
* Do not use the word “essentially” to mean “approximately” or “effectively”.
* In your paper title, if the words “that uses” can accurately replace the word “using”, capitalize the “u”; if not, keep using lower-cased.
* Be aware of the different meanings of the homophones “affect” and “effect”, “complement” and “compliment”, “discreet” and “discrete”, “principal” and “principle”.
* Do not confuse “imply” and “infer”.
* The prefix “non” is not a word; it should be joined to the word it modifies, usually without a hyphen.
* There is no period after the “et” in the Latin abbreviation “et al.”.
* The abbreviation “i.e.” means “that is”, and the abbreviation “e.g.” means “for example”.

## Component E

This is example text. This is example text. This is example text.

#### This is example text. xcvzxcvcxvzxcvzcxvzx

#### This is example text. Positioning Figures and Tables: Place figures and tables at the top and bottom of columns. Avoid placing them in the middle of columns. Large figures and tables may span across both columns. Figure captions should be below the figures; table heads should appear above the tables. Insert figures and tables after they are cited in the text. Use the abbreviation “Fig. 1”, even at the beginning of a sentence.

1. Table Type Styles

| Table Head | Table Column Head | | |
| --- | --- | --- | --- |
| Table column subhead | Subhead | Subhead |
| copy | More table copya |  |  |

1. Sample of a Table footnote. (*Table footnote*)
2. Example of a figure caption. (*figure caption*)

This is example text. Figure Labels: Use 8 point Times New Roman for Figure labels. Use words rather than symbols or abbreviations when writing Figure axis labels to avoid confusing the reader. As an example, write the quantity “Magnetization”, or “Magnetization, M”, not just “M”. If including units in the label, present them within parentheses. Do not label axes only with units. In the example, write “Magnetization (A/m)” or “Magnetization {A[m(1)]}”, not just “A/m”. Do not label axes with a ratio of quantities and units. For example, write “Temperature (K)”, not “Temperature/K”.

# Evaluation

This is example text. Blá, blá, blá introducing this main section...

## Test bed

Start by presenting the test bed (the HW and SW environment you used to test and evaluate your solution). So the first sub section can be called Test bed.

## Data analysis

For instance, you can present charts and data tables that describe the temperature and humidity behavior by measuring night and days...

## Data access

For instance, present here the min, max, avg and std deviation of the time taken to access story data for one month ago, 2, 10, 100 months, etc. as historical data is crucial for building monitoring applications. Again, present charts for that and describe them.

## Other1

Present other kind of metrics that characterize the behavior of your system in load states...

## Other n

Present other kind of metrics that characterize the behavior of your system in load states...

# Integration/App Development

This section exists only if any other applications were developed that used the exposed public API by this system. If so, presented the applications and the performance, capabilities, advantages to the community, etc.

## Application X

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## Application Y

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# Conclusions and Future Work

Present conclusions here by recalling the main aim of this work and specific objectives and say if those were acomplished or not and the advantages of the system for the users and/or community. Then try to propose with brief detail some future work in order to improve and enhance the solution presented here.

# references

(every citation present in the text must be described here. Delete this)

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7. M. Young, The Technical Writer’s Handbook. Mill Valley, CA: University Science, 1989.

# Appendix

*Appendix A*

Include the cRUD commands for crud operations for all supported resources.

*Appendix B*

Use this section to mention the work of each group member, required passwords, way of starting and runing the system, etc.