



*Sociedade Educacional Três de Maio - SETREM*  
*Bacharelado em Sistemas de Informação*

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**Três de Maio**

**2019**

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Undergraduate Thesis of Bachelor  
of Information Systems - Três de  
Maio Faculty - SETREM

Advisor:  
Dr. FirstName LastName

**Três de Maio**  
**2019**

## TERMO DE APROVAÇÃO

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Relatório aprovado como requisito parcial para obtenção do título de **Bacharel em Sistemas de Informação** concedido pela Faculdade de Sistemas de Informação da Sociedade Educacional Três de Maio, pela seguinte Banca examinadora:

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Três de Maio, 08 de Agosto de 2019.

## ABSTRACT

The abstract goes here ...

**Keywords:** .

## RESUMO

O resumo vai aqui...

**Palavras-Chave:** .

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

ACM	Association for Computing Machinery
AWS	Amazon Web Services
IBGE	Brazilian Institute of Geography and Statistics
IEEE	Institute of Electrical and Electronics Engineers
IoT	Internet of Things



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## INTRODUCTION

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LARCC (2019)

According to Vogel and Griebler et al. (2017), bla bla ...

Some authors prefer to include figures and others not (GRIEBLER; VOGEL; MARON; MALISZEWSKI; SCHEPKE; FERNANDES, 2018).

There are some undergraduate theses developed at LARCC (ROCKENBACH; ANDERLE, 2017; MALISZEWSKI; BAUM, 2017; HENTGES; THOMÉ, 2013; STEIN, 2018)

## **1 RESEARCH PLAN**

### **1.1 THEME**

#### **1.1.1 Theme Delimitation**

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

Nulla malesuada porttitor diam. Donec felis erat, congue non, volutpat at, tincidunt tristique, libero. Vivamus viverra fermentum felis. Donec nonummy pellentesque ante. Phasellus adipiscing semper elit. Proin fermentum massa ac quam. Sed diam turpis, molestie vitae, placerat a, molestie nec, leo. Maecenas lacinia. Nam ipsum ligula, eleifend at, accumsan nec, suscipit a, ipsum. Morbi blandit ligula feugiat magna. Nunc eleifend consequat lorem. Sed lacinia nulla vitae enim. Pellentesque tincidunt purus vel magna. Integer non enim. Praesent euismod nunc eu purus. Donec bibendum quam in tellus. Nullam cursus pulvinar lectus. Donec et mi. Nam vulputate metus eu enim. Vestibulum pellentesque felis eu massa.

### **1.2 GENERAL OBJECTIVE**

#### **1.2.1 Specific Objectives**

1. aaaaaaaaaaaaaa
2. bbbbbbbbbbbbbb

3. CCCCCCCCCC

4. DDDDDDDDDDD

5. FFFFFFFFFFFFF

6. GGGGGGGG

1.3 JUSTIFICATION

1.4 PROBLEM

1.5 HYPOTHESIS

1. A is equal to C

2. D is bigger than G

1.6 METHODOLOGY

**1.6.1 Approach**

**1.6.2 Procedures**

**1.6.3 Techniques**

**1.6.4 Hyphoteses Validation**

1.7 BUDGET

1.8 SCHEDULE OF ACTIVITIES

## 2 BACKGROUND

### 2.1 BUSINESS FIELD

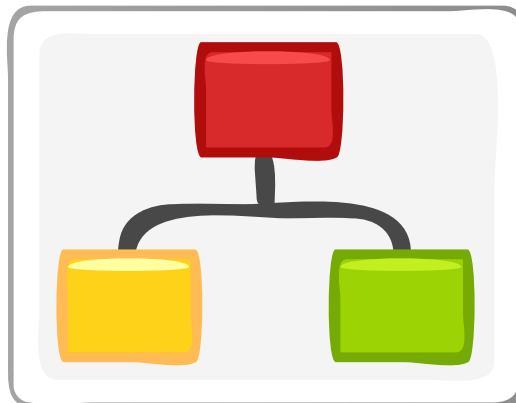
### 2.2 FUNDAMENTALS OF COMPUTING FOR THE STUDIED AREA

Equation 2.1 is an example of an equation in Latex:

$$h_t = f(W^{(hh)}h_{t-1} + W^{(hx)}x_t). \quad (2.1)$$

Figure1 is an example of including a figure.

**Figure 1: Simple diagram**



Source: Extracted from LARCC (2019).

Griebler and Hoffmann et al. (2018)

McCool, Robison and Reinders (2012)

### 2.3 RELATED WORK

Table 1 present an example of a Latex table.

**Table 1: This is a simple example to build a table.**

A	B	N	T
X	y	W	G

### 3 RESULTS

The experiments and developement goes here...

#### 3.1 HISTORY AND PRESENTAION OF THE ORGANIZATION

#### 3.2 DEVELOPEMENTS

Listing 1 presents a Python code example.

##### Listing 1: Python code example.

```
1 import numpy as np
2
3 def incmatrix(genl1,genl2):
4     m = len(genl1)
5     n = len(genl2)
6     M = None #to become the incidence matrix
7     VT = np.zeros((n*m,1), int) #dummy variable
8
9     #compute the bitwise xor matrix
10    M1 = bitxormatrix(genl1)
11    M2 = np.triu(bitxormatrix(genl2),1)
12
13    for i in range(m-1):
14        for j in range(i+1, m):
15            [r,c] = np.where(M2 == M1[i,j])
16            for k in range(len(r)):
17                VT[(i)*n + r[k]] = 1;
18                VT[(i)*n + c[k]] = 1;
19                VT[(j)*n + r[k]] = 1;
20                VT[(j)*n + c[k]] = 1;
21
22            if M is None:
23                M = np.copy(VT)
24            else:
25                M = np.concatenate((M, VT), 1)
26
27            VT = np.zeros((n*m,1), int)
28
29    return M
```



Listing 2 presents a C++ code example.

**Listing 2: C++ code example.**

```
1 #include <stdio.h>
2 #include <iostream>
3 // A comment
4 int main(void)
5 {
6     printf("Hello World\n");
7     return 0;
8 }
```

### 3.3 EXPERIMENTS

## **CONCLUSIONS**

Conclusions goes here ...

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