



UNIVERSIDADE  
ESTADUAL DO CEARÁ

**Campos do Itaperi**

**Ciência da Computação**

**Aluno: Davi de Paula Coelho Raia dos Santos**

**Matrícula:1538649**

**Cadeira de Avaliação de Desempenho**

**Professor: Ernesto dos Santos Vasconcelos**

**Data da entrega 23/05/2022**

**Fortaleza-Ceará**

**2019.2**

## Trabalho Avaliativo 1: Avaliação de Desempenho

Aluno: Davi de Paula Coelho Raia dos Santos

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### Tabela Sistema 1 sem estar ordenado

[12, 33, 8, 18, 27, 32, 28, 5, 11, 13, 15, 5, 9, 23, 21, 5, 23, 12, 18, 21, 9, 17, 9, 11, 14, 32, 15, 19, 30, 26, 34, 22, 15, 10, 9, 29, 22, 6, 9, 31, 19, 22, 34, 33, 32, 23, 27, 17, 7, 17, 31, 12, 23, 6, 34, 26, 26, 30, 7, 32, 30, 33, 30, 24, 17, 20, 8, 35, 15, 7, 20, 13, 20, 23, 17, 24, 9, 7, 10, 8, 8, 28, 19, 7, 23, 31, 22, 20, 10, 24, 32, 10, 23, 27, 17, 31, 11, 26, 28, 30]

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### Tabela Sistema 2 sem estar ordenado

[5, 10, 30, 30, 31, 31, 30, 6, 24, 34, 20, 27, 7, 23, 23, 14, 26, 35, 18, 30, 22, 32, 12, 34, 25, 7, 22, 30, 14, 22, 26, 5, 34, 30, 13, 33, 34, 10, 11, 34, 24, 24, 9, 10, 22, 22, 27, 34, 25, 20, 22, 10, 34, 34, 5, 15, 6, 17, 23, 19, 30, 22, 12, 31, 10, 15, 9, 25, 16, 32, 13, 20, 13, 29, 27, 34, 16, 29, 28, 6, 34, 12, 9, 23, 18, 31, 20, 6, 8, 27, 18, 24, 12, 31, 27, 23, 17, 27, 25, 21]

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### Tabela Sistema 1 ordenada

[5, 5, 5, 6, 6, 7, 7, 7, 7, 7, 8, 8, 8, 8, 9, 9, 9, 9, 9, 9, 10, 10, 10, 10, 10, 11, 11, 11, 12, 12, 12, 13, 13, 14, 15, 15, 15, 15, 17, 17, 17, 17, 17, 17, 18, 18, 19, 19, 19, 20, 20, 20, 20, 21, 21, 22, 22, 22, 22, 23, 23, 23, 23, 23, 23, 23, 23, 24, 24, 24, 26, 26, 26, 26, 27, 27, 27, 28, 28, 28, 29, 30, 30, 30, 30, 30, 31, 31, 31, 31, 32, 32, 32, 32, 32, 33, 33, 33, 34, 34, 34, 35]

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### Tabela Sistema 2 ordenada

[5, 5, 5, 6, 6, 6, 6, 7, 7, 8, 9, 9, 9, 10, 10, 10, 10, 10, 11, 12, 12, 12, 12, 13, 13, 13, 14, 14, 15, 15, 16, 16, 17, 17, 18, 18, 18, 19, 20, 20, 20, 20, 21, 22, 22, 22, 22, 22, 22, 22, 23, 23, 23, 23, 24, 24, 24, 24, 25, 25, 25, 25, 26, 26, 27, 27, 27, 27, 27, 27, 28, 29, 29, 30, 30, 30, 30, 30, 31, 31, 31, 31, 31, 32, 32, 33, 34, 34, 34, 34, 34, 34, 34, 34, 34, 34, 35]

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### Tabela Sistema 1 sem repetição

[5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35]

### Frequência Tabela 1

[3, 2, 5, 4, 6, 4, 3, 3, 2, 1, 4, 6, 2, 3, 4, 2, 4, 7, 3, 4, 3, 3, 1, 5, 4, 5, 3, 3, 1]

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### Tabela Sistema 2 sem repetição

[5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35]

### Frequência Tabela 2

[3, 4, 2, 1, 3, 5, 1, 4, 3, 2, 2, 2, 2, 3, 1, 4, 1, 7, 5, 4, 4, 2, 6, 1, 2, 7, 5, 2, 1, 10, 1]

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Nosso número de classes máximo será 8.0

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Intervalo de classes do sistema 1: 3.75

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Intervalo de classes do sistema 2: 3.75

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RESPOSTA ITEM A):

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Tabela 1 em intervalos de classe

Intervalos		Frequência
5  ---  8.75		14
8.75 ---  12.5		16
12.5 ---  16.25		7
16.25 ---  20.0		15
20.0 ---  23.75		13
23.75 ---  27.5		10
27.5 ---  31.25		13
31.25 ---  35.0		12

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Tabela 2 em intervalos de classe

Intervalos		Frequência
5  ---  8.75		10
8.75 ---  12.5		13
12.5 ---  16.25		9
16.25 ---  20.0		10
20.0 ---  23.75		13
23.75 ---  27.5		16
27.5 ---  31.25		15
31.25 ---  35.0		14

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RESPOSTA ITEM B):

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Média (Aritmética), variância e desvio padrão, respectivamente, da tabela 1:

19.63

80.51310000000001

8.972909227223912

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21.36

80.65039999999999

8.980556775612518

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RESPOSTA ITEM C):

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Tamanho da amostra sem utilizar a variância de dados:

41.0

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Tamanho da amostra do sistema 1 e sistema 2, utilizando a variância, respectivamente:

45.0

45.0

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RESPOSTA ITEM D):

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Intervalo de confiança do Sistema 1, usando a amostra = 45:

18.0 21.0

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Intervalo de confiança do Sistema 2, usando a amostra = 45:

20.0 21.0

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RESPOSTA ITEM E):

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Tabela de intervalo de classe da simulação dentro do intervalo de confiança do Sistema 1:

Intervalos		Frequência
5  ---  8.75		0
8.75 ---  12.5		0
12.5 ---  16.25		0
16.25 ---  20.0		37
20.0 ---  23.75		13
23.75 ---  27.5		0
27.5 ---  31.25		0
31.25 ---  35.0		0

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Tabela de intervalo de classe da simulação dentro do intervalo de confiança do Sistema 2:

Intervalos		Frequência
5  ---  8.75		0
8.75 ---  12.5		0
12.5 ---  16.25		0
16.25 ---  20.0		28
20.0 ---  23.75		22
23.75 ---  27.5		0
27.5 ---  31.25		0
31.25 ---  35.0		0

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RESPOSTA ITEM F):

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Percebemos que o Sistema 1(Rede A), possui médias, variâncias e desvios padrões menores que o Sistema 2(Rede B).

Após a simulação dos dois sistemas percebemos que o sistema 1 tende a ter pacotes de dados um pouco menores que o sistema 2, em que em várias simulações teve pacotes maiores.

Se ambas as redes (sistemas) forem utilizados para o mesmo propósito, chegamos a conclusão que o Sistema 1 tem uma performance melhor que o sistema 2, pois envia as mesmas mensagens em tamanhos menores.

Mas, essa situação só é verdadeira, se e somente se, ambas as redes transmitem os mesmos dados.

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