

# Recuperação de Informação



Imóveis

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# Tarefa 1 : Criar Arquivo Invertido



# Pre-processamento



- Atributos:
  - Quarto
  - Banheiro
  - Vagas
  - Cidade
  - Valor

# Pre-processamento

EXPLORER: WE...



≡ doc\_332.txt

≡ doc\_333.txt

≡ doc\_334.txt

≡ doc\_335.txt

≡ doc\_336.txt

≡ doc\_337.txt

≡ doc\_338.txt

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≡ doc\_355.txt

<https://www.zapimoveis.com.br/oferta/aluguel+apartamento+2-quartos+petropolis+porto-alegre+rs+72m2+RS1500/ID-14573242/?paginaofer>

Condomínio: R\$ 880

quartos: 2

Valor de Locacao: R\$ 1.500,00

Área Total (m²): 123

Bairro: Petrópolis

Cidade: Porto Alegre

suítes: 2

vagas: 2

Área Útil (m²): 72

Estado: RS

# Pre-processamento

## QUARTOS

1: [262, 312, 327, 329]

2: [255, 265, 272, 273, 278, 286, 293, 300, 303, 305, 308, 311, 312]

3: [258, 259, 260, 261, 264, 266, 267, 268, 271, 274, 275, 276, 277]

6, 328, 336, 341, 342, 343, 344, 347, 354]

4: [263, 269, 270, 280, 284, 290, 291, 298, 317, 319, 325, 333, 334]

5: [320, 324]

6: [323]

## VAGAS

1: [260, 262, 265, 271, 275, 278, 295, 307, 308, 316, 317, 321, 322]

2: [255, 258, 259, 261, 263, 264, 268, 274, 276, 277, 279, 282, 283]

3: [266, 270, 281, 283, 284, 320, 333, 339]

4: [280, 290, 337]

5: [257, 267, 269, 323, 325]

banheiros: [255, 1, 2, 3, 4, 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, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99]

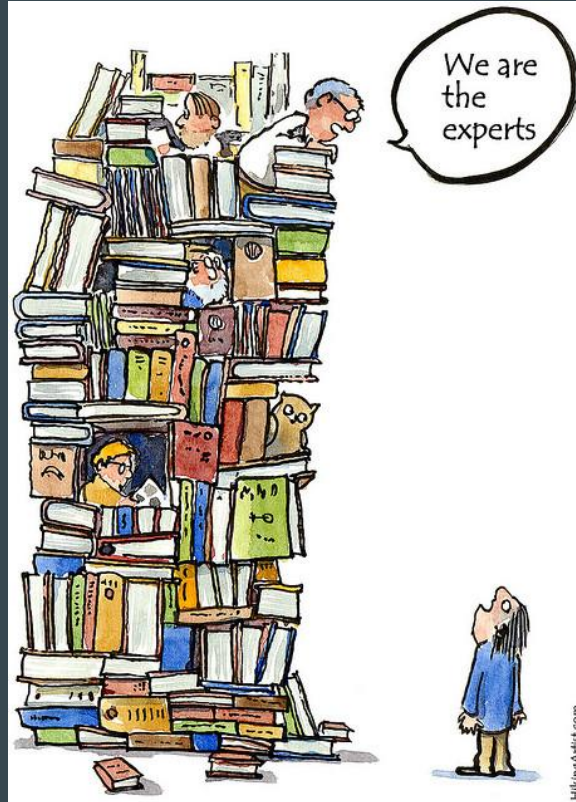
idades: [255, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99]

# Lucro Compressão

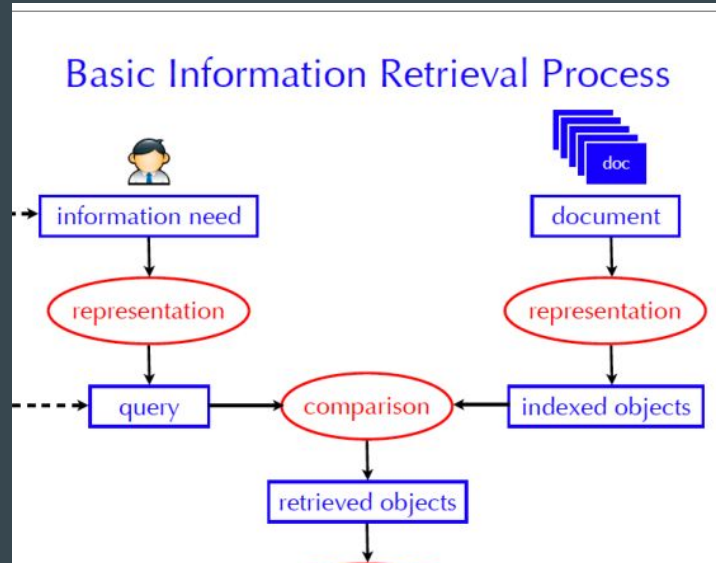
- Pior caso: lista com 400 ids
- Reduziu-se ids de 2 bytes para 1 byte

Numa base de dados pequena, teve-se uma redução de ~50%

## Tarefa 2 : Processamento de Consultas



# Overview

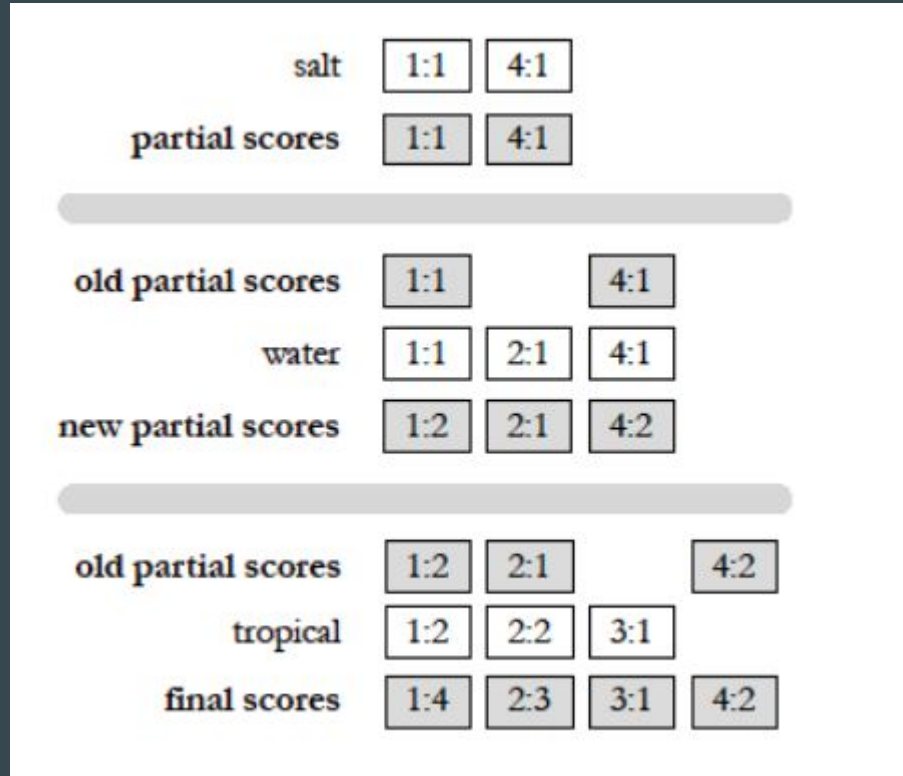




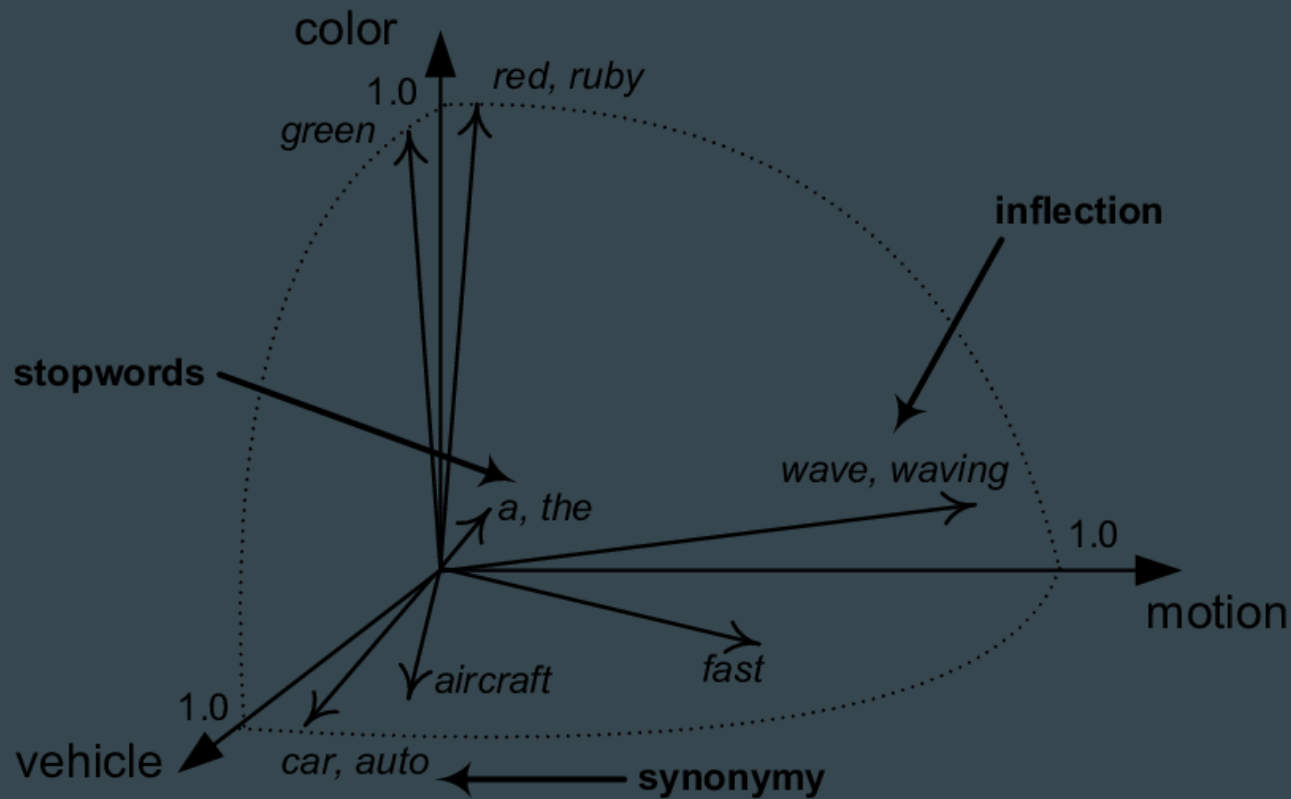
# Parsing



# Leitura dos Postings (Term-at-a-time)



# Ranquear



# Correlação

query = {'banheiros': 1, 'cidade': 'recife', 'vaga': 1, 'quartos': 1, 'valor': 1000}

	Spearman	Kendal Tau
Correlation	0.32395234499	0.286669851887

# Correlação

```
query = {'banheiros': 1, 'cidade': '', 'vaga': 1, 'quartos': 1, 'valor': 1000}
```

	Spearman	Kendal Tau
Correlation	1.0	1.0

# Correlação

query = {'banheiros': 2, 'cidade': 'sp', 'vaga': 3, 'quartos': 3, 'valor': 100000}

	Spearman	Kendal Tau
Correlation	0.936454849498	0.905876731964

# Correlação

```
query = {'banheiros': 2, 'cidade': '', 'vaga': 3, 'quartos': 3, 'valor': 100000}
```

	Spearman	Kendal Tau
Correlation	1.0	1.0

# Correlação

```
query = {'banheiros': 3, 'cidade': 'belo horizonte', 'vaga': 1, 'quartos': 4, 'valor': 350000}
```

	Spearman	Kendal Tau
Correlation	0.715904011837	0.706641184902



# Correlação

query = {'banheiros': 3, 'cidade': 'belo horizonte', 'vaga': 1, 'quartos': 4, 'valor': 350000}

query = {'banheiros': 4, 'cidade': 'recife', 'vaga': 2, 'quartos': 2, 'valor': 500}

	Spearman	Kendal Tau
Correlation	0.0370513077385	0.0683229813665

# Correlação

query = {'banheiros': 1, 'cidade': 'belo horizonte', 'vaga': 2, 'quartos': 4, 'valor': 500}

query = {'banheiros': 3, 'cidade': 'sp', 'vaga': 1, 'quartos': 1, 'valor': 160000}

	Spearman	Kendal Tau
Correlation	0.193640861243	0.184424271381

## Parte 3 : Composição da Resposta

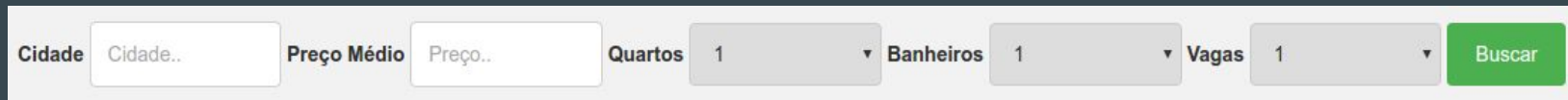


# Interface



# Dois tipos de busca

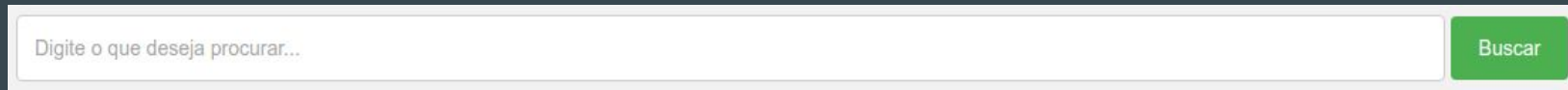
- **Busca com campos determinados**



A horizontal search bar containing several input fields and a search button. The fields are labeled 'Cidade', 'Preço Médio', 'Quartos', 'Banheiros', and 'Vagas'. Each field has a placeholder text (e.g., 'Cidade..', 'Preço..', '1') and a small downward arrow indicating a dropdown menu. The 'Buscar' button is green and located at the end of the bar.

- Campo cidade com Spell Checking

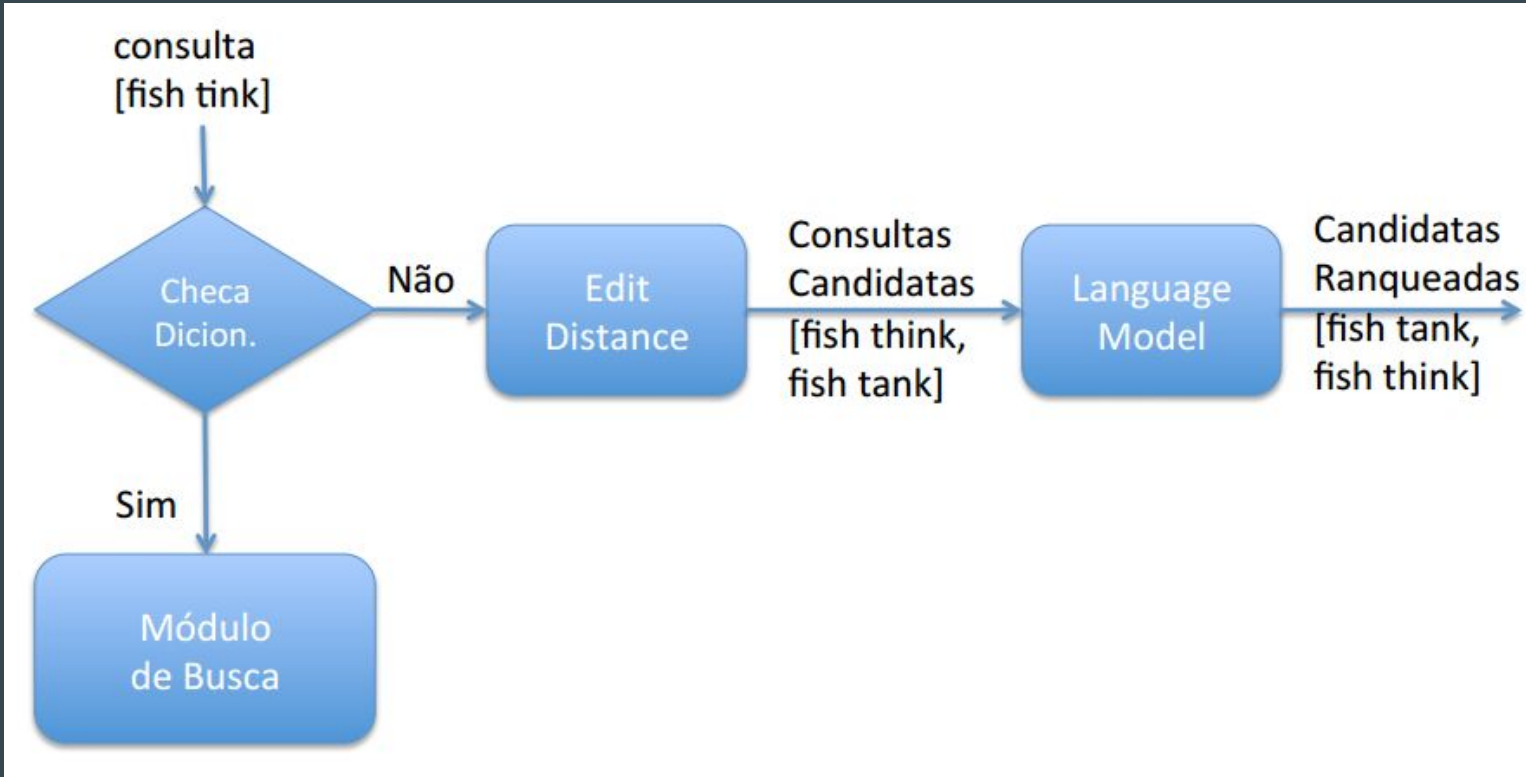
- **Busca livre**



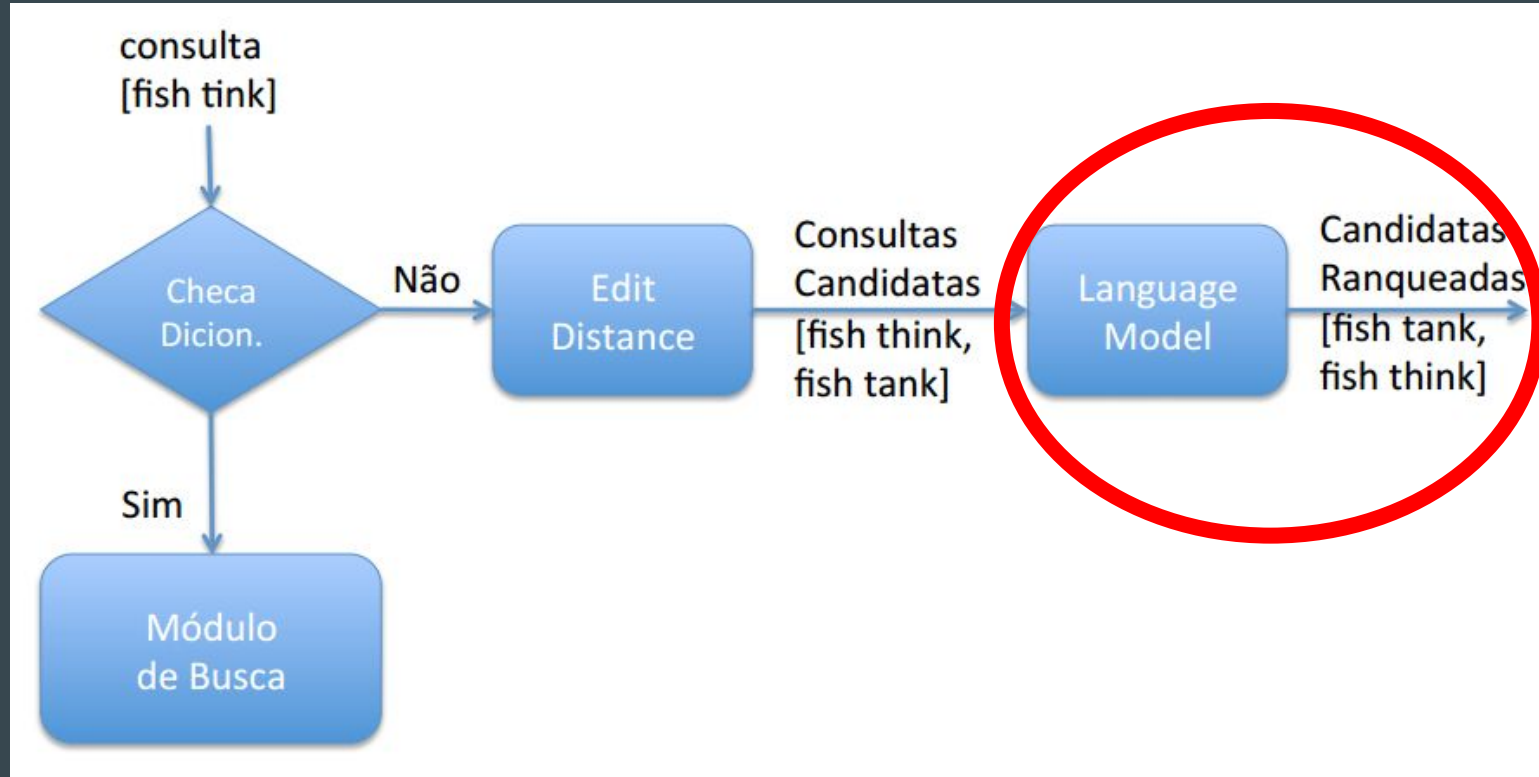
A single-line search bar with a placeholder text 'Digite o que deseja procurar...' and a green 'Buscar' button at the end.

- Campo com Spell Checking

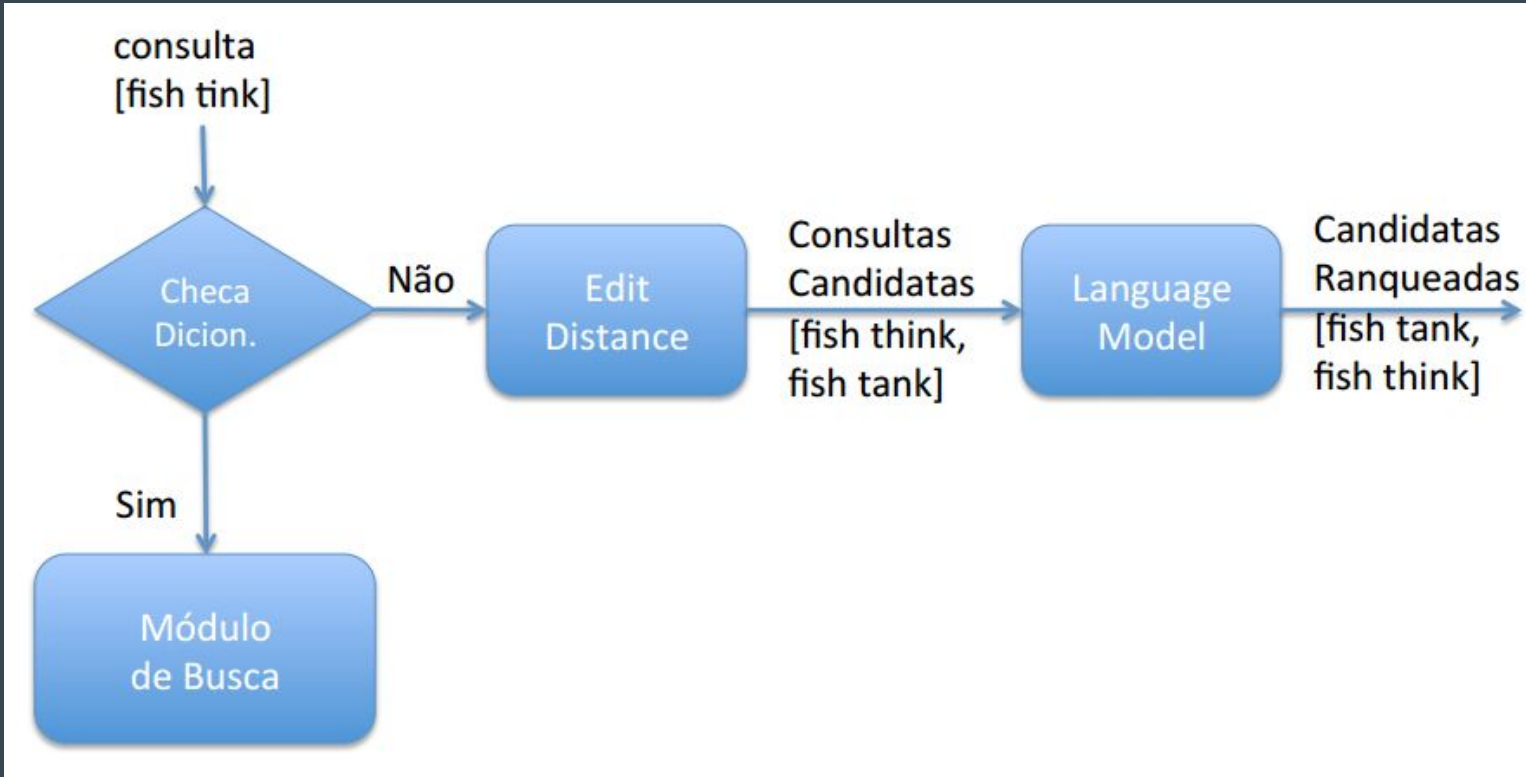
# Spell Checking - Busca determinada



# Spell Checking - Busca determinada



# Spell Checking - Busca Livre





**Demonstração**