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## Exemplos de entrada e saída – EP de Algoritmos e Estruturas de Dados I

### Entrada:

```
gcc main.c -o main  
./main text.txt lista
```

### text.txt:

Informally, an algorithm is any well-defined computational procedure that takes some value, or set of values, as input and produces some value, or set of values, as output. An algorithm is thus a sequence of computational steps that transform the input into the output.

We can also view an algorithm as a tool for solving a well-specified computational problem. The statement of the problem specifies in general terms the desired input/output relationship. The algorithm describes a specific computational procedure for achieving that input/output relationship.

For example, we might need to sort a sequence of numbers into nondecreasing order.

This problem arises frequently in practice and provides fertile ground for introducing many standard design techniques and analysis tools.

### Saída:

```
Arquivo: 'text.txt'  
Tipo de indice: 'lista'  
Numero de linhas no arquivo: 13  
Total de palavras unicas indexadas: 72  
Numero de comparacoes realizadas para a construcao do indice: 3636  
> busca set  
Existem 2 ocorrências da palavra 'set' na(s) seguinte(s) linha(s):  
00002: some value, or set of values, as input and produces some value, or  
set of values,  
Numero de comparacoes: 58  
> busca algorithm  
Existem 4 ocorrências da palavra 'algorithm' na(s) seguinte(s) linha(s):  
00001: Informally, an algorithm is any well-defined computational procedure  
that takes  
00003: as output. An algorithm is thus a sequence of computational steps  
that transform  
00006: We can also view an algorithm as a tool for solving a well-specified  
computational
```

00008: input/output relationship. The algorithm describes a specific computational  
Numero de comparacoes: 70  
> busca aed1  
Palavra 'aed1' nao encontrada.  
Numero de comparacoes: 72  
> fim

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### Entrada:

```
gcc main.c -o main
./main poema.txt lista
> busca algorithm
```

poema.txt:

No meio do caminho tinha uma pedra  
tinha uma pedra no meio do caminho  
tinha uma pedra  
no meio do caminho tinha uma pedra.

Nunca me esquecerei desse acontecimento  
na vida de minhas retinas tão fatigadas.  
Nunca me esquecerei que no meio do caminho  
tinha uma arvore  
tinha uma árvore no meio do caminho  
no meio do caminho tinha uma árvore.

### Saída:

```
Arquivo: 'poema.txt'
Tipo de indice: 'arvore'
Numero de linhas no arquivo: 11
Total de palavras unicas indexadas: 22
Altura da arvore: 6
Numero de comparacoes realizadas para a construcao do indice: 173
> busca pedra
Existem 4 ocorrências da palavra 'pedra' na(s) seguinte(s) linha(s):
00001: No meio do caminho tinha uma pedra
00002: tinha uma pedra no meio do caminho
00003: tinha uma pedra
00004: no meio do caminho tinha uma pedra.
Numero de comparacoes: 3
> busca caminho
Existem 6 ocorrências da palavra 'caminho' na(s) seguinte(s) linha(s):
00001: No meio do caminho tinha uma pedra
00002: tinha uma pedra no meio do caminho
00004: no meio do caminho tinha uma pedra.
00008: Nunca me esquecerei que no meio do caminho
00010: tinha uma árvore no meio do caminho
00011: no meio do caminho tinha uma árvore.
```

```
Numero de comparacoes: 4
> busca arvore
Existem 1 ocorrências da palavra 'arvore' na(s) seguinte(s) linha(s):
00009: tinha uma arvore
Numero de comparacoes: 6
> busca árvore
Existem 2 ocorrências da palavra 'árvore' na(s) seguinte(s) linha(s):
00010: tinha uma árvore no meio do caminho
00011: no meio do caminho tinha uma árvore.
Numero de comparacoes: 5
> fim
```

---

### Entrada:

```
gcc main.c -o main
./main roteiro_shrek.txt lista
```

### roteiro\_shrek.txt:

[https://raw.githubusercontent.com/PauloBacelar/ep-aed1/refs/heads/master/roteiro\\_shrek.txt](https://raw.githubusercontent.com/PauloBacelar/ep-aed1/refs/heads/master/roteiro_shrek.txt)

```
Arquivo: 'roteiro_shrek.txt'
Tipo de indice: 'lista'
Numero de linhas no arquivo: 2276
Total de palavras unicas indexadas: 2445
Numero de comparacoes realizadas para a construcao do indice: 22508786
> busca ogre
Existem 30 ocorrências da palavra 'ogre' na(s) seguinte(s) linha(s):
00002: (The DreamWorks Pictures SKG logo plays out, with dreamy music
playing underneath. At the end of the logo, the S's in "DreamWorks" and
"SKG" turn green and grow out ogre ears, matching the film's logo. Credits
saying "DreamWorks Pictures Presents" and "A PDI/DreamWorks Production"
appear.)
00004: (A ray of light shines down on a leather-bound storybook. The book
opens and a Scottish-accented voice narrator, named Shrek the ogre, begins
reading its text)
00014: (We see an outhouse and hear the sound of a toilet flushing. Out
steps Shrek, an ogre, who tugs at his underwear and shakes his foot of the
page still stuck to his shoe. He looks lovingly at the swamp he calls home,
and goes about his daily routine. Which is taking a mud shower, brushing
his teeth with bugs, bathing in a muddy pond, gathering giant slugs for
dinner, and painting a warning sign)
00144: The Captain: You there! Ogre!
00186: Shrek: No! I'm an ogre! You know, "Grab your torch and
pitchforks!!". Doesn't that bother you?
00281: Shrek: I live in a swamp. I put up signs. I'm a terrifying ogre!
What do I have to do get a little privacy?!
```

00551: Lord Farquaad: Indeed. Knights, new plan! The one who kills the ogre will be named champion! Have at him!

00593: Lord Farquaad: Congratulations, ogre. You've won the honor of embarking on a great and noble quest.

00601: Lord Farquaad: Indeed. All right, ogre. I'll make you a deal. Go on this quest for me, and I'll give you your swamp back.

00622: Donkey: I don't get it. Why don't you just pull some of that ogre stuff on him? Throttle him, lay siege to his fortress, grinds his bones to make your bread, the whole ogre trip.

01016: (Shrek shakes his head and takes off his helmet and reveals his ogre self. Fiona looks at him blankly, confused but not frightened. Shrek awkwardly grins)

01018: Fiona: You're...an ogre.

01022: Fiona: Well --yes, actually! Oh, no. This is all wrong. You're not supposed to be an ogre! (walks off)

01034: Fiona: But I have to be rescued by my true love! Not by some ogre and hi...hi...his pet.

01145: Shrek: And, uh, that one, that's Throwback, the only ogre to ever spit over three wheat fields.

01225: Shrek: Look, I'm not the one with the problem, okay? It's the world that seems to have a problem with me! People take one look at me and go "Aah! Help! Run! A big, stupid, ugly ogre!" (depressed) They judge me before they even know me. That's why I'm better off alone.

01229: Donkey: You know what? When we met, I didn't think you was just a big, stupid, ugly ogre.

01358: Monsieur Hood: Paid! So... (Merrymen made a star) When an ogre in the bush grabs a lady by the tush. That's bad.

01648: Donkey: An ogre?

01650: Shrek: Yeah. An ogre.

01747: Donkey: But, you know, um...you're kind of an ogre. And Shrek...well...you got a lot in common.

01844: Lord Farquaad: Very well, ogre. The deed to your swamp, cleared out, as agreed. Take it and go before I change my mind.

01856: Lord Farquaad: Oh, that is so sweet. You don't have to waste good manners on the ogre. It's not like it has feelings.

01890: Fiona: Fare thee well, ogre.

01945: Donkey: Smelly ogre.

01997: Shrek: I'm sorry. I guess I am just a big, stupid...ugly ogre. Can you forgive me?

02153: Lord Farquaad: Oh, this is precious. (laughs) The ogre has fallen in love with the princess! Oh, good Lord. (laughs)

02157: Lord Farquaad: An ogre and a princess! (laughs)

02169: (Fiona backs up and gives Shrek a sheepish smile. As the sun sets, she changes into her ogre self. The crowd gasps and one person faints.

Shrek stares at Fiona in astonishment, and then grins)

Numero de comparacoes: 2423

> busca therefore

Palavra 'therefore' nao encontrada.

Numero de comparacoes: 2445

> busca marriage

Existem 2 ocorrências da palavra 'marriage' na(s) seguinte(s) linha(s):

01862: Lord Farquaad: Princess Fiona, beautiful, fair, flawless Fiona. I ask your hand in marriage.

02185: Lord Farquaad: All this hocus-pocus alters nothing, this marriage is binding, and that makes me king! SEE?! SEE?!

Numero de comparacoes: 192

> busca hocus-pocus

Existem 1 ocorrências da palavra 'hocus' na(s) seguinte(s) linha(s):

02185: Lord Farquaad: All this hocus-pocus alters nothing, this marriage is binding, and that makes me king! SEE?! SEE?!

Numero de comparacoes: 45

> fim

---

### Entrada:

gcc main.c -o main

./main roteiro\_bee\_movie.txt lista

roteiro\_bee\_movie.txt:

[https://raw.githubusercontent.com/PauloBacelar/ep-aed1/refs/heads/master/roteiro\\_bee\\_movie.txt](https://raw.githubusercontent.com/PauloBacelar/ep-aed1/refs/heads/master/roteiro_bee_movie.txt)

Arquivo: 'roteiro\_bee\_movie.txt'

Tipo de índice: 'arvore'

Numero de linhas no arquivo: 1363

Total de palavras unicas indexadas: 1800

Altura da arvore: 29

Numero de comparacoes realizadas para a construcao do indice: 115614

> busca florist

Existem 6 ocorrências da palavra 'florist' na(s) seguinte(s) linha(s):

00429: My parents wanted me to be a lawyer or a doctor, but I wanted to be a florist.

00491: She's so nice. And she's a florist!

00492: Oh, no! You're dating a human florist!

00549: To be in the Tournament of Roses, that's every florist's dream!

00845: I'm a florist.

01185: This is Vanessa Bloome. I'm a florist from New York.

Numero de comparacoes: 14

> busca mosquito

Existem 7 ocorrências da palavra 'mosquito' na(s) seguinte(s) linha(s):

00656: Not us, man. We on our own. Every mosquito on his own.

00658: You a mosquito, you in trouble. Nobody likes us. They just smack. See a mosquito, smack, smack!

00660: Mosquito girls try to trade up, get with a moth, dragonfly. Mosquito girl don't want no mosquito.

01338: My mosquito associate will help you.

Numero de comparacoes: 17

> busca vanessa

Existem 15 ocorrências da palavra 'vanessa' na(s) seguinte(s) linha(s):

00352: Right. Bye, Vanessa. Thanks.

00353: Vanessa, next week? Yogurt night?

00489: Her name's Vanessa.

00535: Vanessa!

00998: Vanessa, we won!

01083: Vanessa?

01084: Vanessa? Why are you leaving?

01089: Vanessa, I just wanna say I'm sorry.

01096: Vanessa!

01129: Vanessa Bloome, FTD.

01177: Good afternoon, passengers. This is your captain. Would a Miss Vanessa Bloome in 24B please report to the cockpit? And please hurry!

01185: This is Vanessa Bloome. I'm a florist from New York.

01193: Vanessa, this is nothing more than a big metal bee.

01243: Vanessa, pull yourself together. You have to snap out of it!

01281: Vanessa, aim for the flower.

Numero de comparacoes: 12

> busca flower

Existem 13 ocorrências da palavra 'flower' na(s) seguinte(s) linha(s):

00278: Say again? You're reporting a moving flower?

00284: Not like a flower, but I like it.

01111: I've ruined the planet. I wanted to help you with the flower shop. I've made it worse.

01117: I know every bee, plant and flower bud in this park.

01281: Vanessa, aim for the flower.

01286: Land on that flower!

01289: Not that flower! The other one!

01291: That flower.

01292: I'm aiming at the flower!

01294: I mean the giant pulsating flower made of millions of bees!

01309: Did you see the giant flower?

01310: What giant flower? Where? Of course

01311: I saw the flower! That was genius!

Numero de comparacoes: 13

> fim