**Universidade de Brasília**

Departamento de Ciência da Computação

Introdução à Ciência da Computação - 113913

Gabarito da Lista de Exercícios 5

Strings

**Observações:**

* As listas de exercícios serão corrigidas por um **corretor automático,** portanto é necessário que as entradas e saídas do seu programa estejam conforme o padrão especificado em cada questão (exemplo de entrada e saída). Por exemplo, a não ser que seja requisitado na questão, não use mensagens escritas durante o desenvolvimento do seu código como “Informe a primeira entrada”. Estas mensagens não são tratadas pelo corretor, portanto a correção irá resultar em **resposta errada**, mesmo que seu código esteja correto;
* As instâncias de Entrada serão as usadas pelo corretor e suas saídas deve estar **iguais** às apresentadas em Instâncias de Saída.

Ataque em Roma

crypto = input().split()

decrypto = ""

**for** word **in** crypto:

    decrypto = decrypto + word[2]

**print**(decrypto)

O método `split` quebra a string dada usando o separador fornecido. No exemplo, ele quebra a string que input fornece ao redor dos espaços.

Um exemplo de solução deste problema sem o uso do `split` é:

crypto = input()

decrypto = ""

counter = 0

**for** character **in** crypto:

**if** character == " ":

        counter = -1

**elif** counter == 2:

        decrypto = decrypto + character

    counter = counter+1

**print**(decrypto)

| Instâncias de Entrada | Instâncias de Saída |
| --- | --- |
| oefre | f |
| ofeb feyuif fyeruowf yeurofbe eyufbeur yruefeu yuefyeur feyuhfyeuw fyerufheu | eyeuuueye |
| eub eub eub | bbb |
| hciuehfiueruifberbfhjerhbfuerbrfuberufberufbeurfbuyerbfuyerbuyfbeurybfyuer | i |
| yyyyyyyyyyyyyyyyyyyyyy | y |
| yyy yyyy yyyyy yyyyyy yyy yyy yyyyy | yyyyyyy |
| nnnnnn nnnnn nnnn nnn nnn nnnn nnnn | nnnnnnn |
| pota topo tato | tpt |
| Integer auctor tellus vitae fringilla pretium elit felis auctor metus nec fringilla metus est nisi volutpat consequat quam pulvinar lorem venenatis Donec quis posuere mauris Etiam sed sapien egestas tristique Pellentesque habitant morbi tristique senectus netus malesuada fames turpis egestas Nulla interdum nisl sit amet justo rutrum interdum nisi luctus Duis aliquet molestie tincidunt Nam congue libero sem luctus egestas Fusce tincidunt sed est scelerisque vestibulum sapien interdum Vivamus vitae est nulla consectetur egestas Morbi sit amet nulla fringilla ultricies odio quis facilisis sem Mauris ullamcorper | tcltieilctcittslnalrnnisuidpeilbrintlmreltstesttsciilnmnbmcesndtesptvttlnertelitiicmul |
| Suspendisse commodo ullamcorper nulla sit amet rhoncus neque sodales non Suspendisse potenti Maecenas quis risus ornare tincidunt cursus condimentum nunc Morbi rutrum purus lectus vestibulum urna tincidunt sit amet Maecenas suscipit massa quis sodales dignissim Pellentesque non augue diam ultrices tincidunt Nulla lacinia urna Nulla luctus augue dapibus facilisis Nullam auctor odio sed mollis risus Donec rutrum nisi risus fringilla diam malesuada eget Sed mauris libero Suspendisse laoreet metus vel volutpat mattis Donec lacinia venenatis lorem pharetra justo congue Praesent felis metus bibendum nec augue dictum semper elit Sed suscipit velit mauris convallis tellus egestas laoreet vel condimentum felis congue nunc Morbi lorem tempus bibendum lorem quis vulputate felis Sed aliquet eros dui auctor tempor Sed varius auctor sem vel pellentesque Proin eleifend lorem sed scelerisque interdum elit dui commodo diam posuere sem purus eget quam Nullam placerat vel felis hendrerit Mauris volutpat lobortis arcu sit amet pulvinar Etiam sed ipsum eget erat maximus varius Pellentesque sit amet sagittis nulla Donec sed dolor nibh Nunc felis turpis Nulla sodales enim turpis bibendum scelerisque Mauris placerat sem non sodales turpis Curabitur ligula purus Mauris massa magna vulputate sit amet neque sed commodo pellentesque arcu Interdum malesuada fames ante ipsum primis faucibus Suspendisse tincidunt enim Class aptent taciti sociosqu litora torquent per conubia nostra per inceptos himenaeos Pellentesque semper nulla sit amet ullamcorper Nunc tincidunt turpis varius mollis Integer lorem urna luctus purus convallis convallis velit lobortis accumsan turpis ornare Quisque viverra nulla sem interdum imperdiet hac habitasse platea dictumst Suspendisse blandit massa tortor vel accumsan sem efficitur sit amet Curabitur urna justo pharetra bibendum non euismod vitae tortor Vestibulum pharetra nunc efficitur pellentesque Curabitur mattis sollicitudin lorem pulvinar hendrerit Nunc magna nulla aliquet libero venenatis tristique sapien Donec placerat lacus luctus Integer consequat vitae risus congue Pellentesque consequat est tempor malesuada luctus Sed mollis viverra arcu accumsan metus gravida Cras laoreet pretium dolor placerat Vestibulum porta lorem imperdiet congue risus luctus velit mollis libero massa diam quis nisi sem tincidunt pulvinar Praesent vestibulum semper eleifend Aenean blandit urna enim gravida sit amet aliquet magna maximus Cras varius ligula eros mattis sem rutrum sed Etiam mattis leo massa quis sollicitudin dolor sagittis Cras volutpat erat gravida lacinia odio ante rutrum erat non semper risus erat Maecenas bibendum eget turpis non suscipit Duis blandit diam sollicitudin lacus vehicula porta Nulla mattis sapien dignissim aliquet purus arcu commodo ligula tincidunt erat urna dui risus nunc varius quis dolor quis rhoncus varius libero Cras rutrum est pretium egestas justo enim cursus sem aliquam sapien nisi quis turpis Duis sit amet efficitur lacus Curabitur magna justo volutpat quis euismod nec tincidunt eget | smllteoqdnsteisnnrnnrtrcsnnteessidglngatnlcnlcgpclcidlsntssialedubsotlltncnrasnaltbcgcmidslunleolnlnnrrmbrilldioicmdrcmlloerdetiimasmrealallnulbctelidseaxrlteglndlbnlrldirbeuamndrrgrusglteqdmlctlmtsiusniatcctrrnsrcmlmltelnnrrltrncrnnlbcrnivlmtpcbacsasrlcmfternsabnitrsanflrtlrlnnglibnipnacctntsnlntmlcdlvcctaaoelasrrpnscllbsaismnlasmenaniateigxargotmtditosillgalaacittanmsaebernsiaalchrltpgircmgnanisnriliorbatteesirmipsiritefcrgsliicne |

Brincadeira de Criança

**1 def** correctChar(oldChar):

2     **if** **not** oldChar.lower() **in** ‘aeiou ':

3         **return** 'p'

4     **return** oldChar

5

6 oldString = input()

7 newString = ""

8

**9 for** character **in** oldString:

10     newString = newString + correctChar(character)

11

**12 print**(newString)

A função `correctChar` só foi utilizada neste gabarito para facilitar a leitura e compreensão da solução.

O método `lower` auxilia o teste para verificar se a letra é consoante. Se não fossemos utilizá-lo, precisaríamos verificar se oldChar não está em **‘aeiouAEIOU ‘.**

Note que existe um espaço na string de comparação, em `correctChar`. Ele existe ali para que o caractere de espaço não se torne um ‘p’.

| Instâncias de Entrada | Instâncias de Saída |
| --- | --- |
| wazesxrdctfvygbhunjmnu | papeppppppppppppuppppu |
| ofeb feyuif fyeruowf yeurofbe eyufbeur yruefeu yuefyeur feyuhfyeuw fyerufheu | opep pepuip ppepuopp peupoppe epuppeup ppuepeu pueppeup pepupppeup ppepuppeu |
| As Maiusculas devem Ser Mantidas Quando VOGAIS porem Nao quando CONSOANTES | Ap paiuppupap pepep pep pappipap puappo pOpAIp popep pao puappo pOppOAppEp |
| x | p |
| a | a |
| multiplos espacos devem ser mantidos na solucao | puppippop eppapop pepep pep pappipop pa popupao |
|  |  |
| ppp ppp | ppp ppp |
| Integer auctor tellus vitae fringilla pretium elit felis auctor metus nec fringilla metus est nisi volutpat consequat quam pulvinar lorem venenatis Donec quis posuere mauris Etiam sed sapien egestas tristique Pellentesque habitant morbi tristique senectus netus malesuada fames turpis egestas Nulla interdum nisl sit amet justo rutrum interdum nisi luctus Duis aliquet molestie tincidunt Nam congue libero sem luctus egestas Fusce tincidunt sed est scelerisque vestibulum sapien interdum Vivamus vitae est nulla consectetur egestas Morbi sit amet nulla fringilla ultricies odio quis facilisis sem Mauris ullamcorper | Ippepep auppop peppup pipae ppippippa ppepiup epip pepip auppop pepup pep ppippippa pepup epp pipi popuppap poppepuap puap puppipap popep pepepapip popep puip popuepe paupip Epiap pep papiep epeppap ppippipue peppeppeppue papipapp poppi ppippipue pepeppup pepup papepuapa papep puppip epeppap puppa ippeppup pipp pip apep puppo puppup ippeppup pipi puppup puip apipuep popeppie pippipupp pap poppue pipepo pep puppup epeppap puppe pippipupp pep epp ppepepippue peppipupup papiep ippeppup pipapup pipae epp puppa poppeppepup epeppap poppi pip apep puppa ppippippa upppipiep opio puip papipipip pep paupip uppappoppep |
| Suspendisse commodo ullamcorper nulla sit amet rhoncus neque sodales non Suspendisse potenti Maecenas quis risus ornare tincidunt cursus condimentum nunc Morbi rutrum purus lectus vestibulum urna tincidunt sit amet Maecenas suscipit massa quis sodales dignissim Pellentesque non augue diam ultrices tincidunt Nulla lacinia urna Nulla luctus augue dapibus facilisis Nullam auctor odio sed mollis risus Donec rutrum nisi risus fringilla diam malesuada eget Sed mauris libero Suspendisse laoreet metus vel volutpat mattis Donec lacinia venenatis lorem pharetra justo congue Praesent felis metus bibendum nec augue dictum semper elit Sed suscipit velit mauris convallis tellus egestas laoreet vel condimentum felis congue nunc Morbi lorem tempus bibendum lorem quis vulputate felis Sed aliquet eros dui auctor tempor Sed varius auctor sem vel pellentesque Proin eleifend lorem sed scelerisque interdum elit dui commodo diam posuere sem purus eget quam Nullam placerat vel felis hendrerit Mauris volutpat lobortis arcu sit amet pulvinar Etiam sed ipsum eget erat maximus varius Pellentesque sit amet sagittis nulla Donec sed dolor nibh Nunc felis turpis Nulla sodales enim turpis bibendum scelerisque Mauris placerat sem non sodales turpis Curabitur ligula purus Mauris massa magna vulputate sit amet neque sed commodo pellentesque arcu Interdum malesuada fames ante ipsum primis faucibus Suspendisse tincidunt enim Class aptent taciti sociosqu litora torquent per conubia nostra per inceptos himenaeos Pellentesque semper nulla sit amet ullamcorper Nunc tincidunt turpis varius mollis Integer lorem urna luctus purus convallis convallis velit lobortis accumsan turpis ornare Quisque viverra nulla sem interdum imperdiet hac habitasse platea dictumst Suspendisse blandit massa tortor vel accumsan sem efficitur sit amet Curabitur urna justo pharetra bibendum non euismod vitae tortor Vestibulum pharetra nunc efficitur pellentesque Curabitur mattis sollicitudin lorem pulvinar hendrerit Nunc magna nulla aliquet libero venenatis tristique sapien Donec placerat lacus luctus Integer consequat vitae risus congue Pellentesque consequat est tempor malesuada luctus Sed mollis viverra arcu accumsan metus gravida Cras laoreet pretium dolor placerat Vestibulum porta lorem imperdiet congue risus luctus velit mollis libero massa diam quis nisi sem tincidunt pulvinar Praesent vestibulum semper eleifend Aenean blandit urna enim gravida sit amet aliquet magna maximus Cras varius ligula eros mattis sem rutrum sed Etiam mattis leo massa quis sollicitudin dolor sagittis Cras volutpat erat gravida lacinia odio ante rutrum erat non semper risus erat Maecenas bibendum eget turpis non suscipit Duis blandit diam sollicitudin lacus vehicula porta Nulla mattis sapien dignissim aliquet purus arcu commodo ligula tincidunt erat urna dui risus nunc varius quis dolor quis rhoncus varius libero Cras rutrum est pretium egestas justo enim cursus sem aliquam sapien nisi quis turpis Duis sit amet efficitur lacus Curabitur magna justo volutpat quis euismod nec tincidunt eget | puppeppippe poppopo uppappoppep puppa pip apep ppoppup pepue popapep pop puppeppippe popeppi paepepap puip pipup oppape pippipupp puppup poppipeppup pupp poppi puppup pupup peppup peppipupup uppa pippipupp pip apep paepepap puppipip pappa puip popapep pippippip peppeppeppue pop aupue piap upppipep pippipupp puppa papipia uppa puppa puppup aupue papipup papipipip puppap auppop opio pep poppip pipup popep puppup pipi pipup ppippippa piap papepuapa epep pep paupip pipepo puppeppippe paopeep pepup pep popuppap pappip popep papipia pepepapip popep ppapeppa puppo poppue ppaepepp pepip pepup pipeppup pep aupue pippup peppep epip pep puppipip pepip paupip poppappip peppup epeppap paopeep pep poppipeppup pepip poppue pupp poppi popep peppup pipeppup popep puip puppupape pepip pep apipuep epop pui auppop peppop pep papiup auppop pep pep peppeppeppue ppoip epeipepp popep pep ppepepippue ippeppup epip pui poppopo piap popuepe pep pupup epep puap puppap ppapepap pep pepip pepppepip paupip popuppap popoppip appu pip apep puppipap Epiap pep ippup epep epap papipup papiup peppeppeppue pip apep papippip puppa popep pep popop pipp pupp pepip puppip puppa popapep epip puppip pipeppup ppepepippue paupip ppapepap pep pop popapep puppip pupapipup pipupa pupup paupip pappa pappa puppupape pip apep pepue pep poppopo peppeppeppue appu Ippeppup papepuapa papep appe ippup ppipip paupipup puppeppippe pippipupp epip ppapp appepp papipi popioppu pipopa poppuepp pep popupia popppa pep ippeppop pipepaeop peppeppeppue peppep puppa pip apep uppappoppep pupp pippipupp puppip papiup poppip Ippepep popep uppa puppup pupup poppappip poppappip pepip popoppip appuppap puppip oppape puippue pipeppa puppa pep ippeppup ippeppiep pap papipappe ppapea pippuppp puppeppippe ppappip pappa poppop pep appuppap pep eppipipup pip apep pupapipup uppa puppo ppapeppa pipeppup pop euippop pipae poppop peppipupup ppapeppa pupp eppipipup peppeppeppue pupapipup pappip poppipipupip popep puppipap pepppepip pupp pappa puppa apipuep pipepo pepepapip ppippipue papiep popep ppapepap papup puppup Ippepep poppepuap pipae pipup poppue peppeppeppue poppepuap epp peppop papepuapa puppup pep poppip pipeppa appu appuppap pepup ppapipa ppap paopeep ppepiup popop ppapepap peppipupup poppa popep ippeppiep poppue pipup puppup pepip poppip pipepo pappa piap puip pipi pep pippipupp puppipap ppaepepp peppipupup peppep epeipepp Aepeap ppappip uppa epip ppapipa pip apep apipuep pappa papipup ppap papiup pipupa epop pappip pep puppup pep Epiap pappip peo pappa puip poppipipupip popop papippip ppap popuppap epap ppapipa papipia opio appe puppup epap pop peppep pipup epap paepepap pipeppup epep puppip pop puppipip puip ppappip piap poppipipupip papup pepipupa poppa puppa pappip papiep pippippip apipuep pupup appu poppopo pipupa pippipupp epap uppa pui pipup pupp papiup puip popop puip ppoppup papiup pipepo ppap puppup epp ppepiup epeppap puppo epip puppup pep apipuap papiep pipi puip puppip puip pip apep eppipipup papup pupapipup pappa puppo popuppap puip euippop pep pippipupp epep |

Cruzeiro

1 cruzeiro = input().split()

2

**3 if** cruzeiro[0].lower() < cruzeiro[1].lower():

4     **print(**“B”)

**5 else**:

6     **print(**“A”)

Caso você não conheça o método split, verifique a resposta da questão Ataque em Roma.

O comparador < faz a ordenação lexicográfica de strings, mas caracteres maiúsculos sempre tomam precedência na comparação. Para corrigir isso, usamos o método lower(), ou transformamos a string para minúsculo / maiúsculo manualmente.

| Instâncias de Entrada | Instâncias de Saída |
| --- | --- |
| b a | A |
| aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaab | B |
| B a | A |
| multiplos espacos | A |
| devem sermantidos | B |
| aaaa aaaZ | B |
| zzzzx zzzz | A |
| samesize samesizejustgreater | B |
| Integer auctor | A |
| Suspendisse commodo | A |

Discussão interminável

1 N = input()

2

3 P = 0

4 U = 0

5

**6 for** i **in** range(0, int(N)):

7     pandaurso = input()

8

9     **for** character **in** pandaurso:

10         **if** character.lower() == 'p':

11             P = P + 1

12         **elif** character.lower() == 'u':

13             U = U + 1

14

15

**16 print**("%d %d" % (P,U))

Caso você não entenda a última linha, é tranquilo usar o end=“ “ para mostrar dois valores numa única linha, também.

| Instâncias de Entrada | Instâncias de Saída |
| --- | --- |
| 0 | 0 0 |
| 1  wazesxrdctfvygbhunjmnu | 0 2 |
| 2  Tanto Ps maiusculos quanto ps minusculos devem ser contados.  O mesmo vale para os Us maiusculos. | 3 8 |
| 1  p | 1 0 |
| 1  u | 0 1 |
| 1  espacos nao devem ser um proble ma para a sol ucao | 3 2 |
| 1  potato potato | 2 0 |
| 10  ppp  ppp  uuu  uuu  pu  up  uuup  pppu  pppp  uuuu | 16 16 |
| 1  Integer auctor tellus vitae fringilla pretium elit felis auctor metus nec fringilla metus est nisi volutpat consequat quam pulvinar lorem venenatis Donec quis posuere mauris Etiam sed sapien egestas tristique Pellentesque habitant morbi tristique senectus netus malesuada fames turpis egestas Nulla interdum nisl sit amet justo rutrum interdum nisi luctus Duis aliquet molestie tincidunt Nam congue libero sem luctus egestas Fusce tincidunt sed est scelerisque vestibulum sapien interdum Vivamus vitae est nulla consectetur egestas Morbi sit amet nulla fringilla ultricies odio quis facilisis sem Mauris ullamcorper | 9 48 |
| 10  Suspendisse commodo ullamcorper nulla sit amet rhoncus neque sodales non Suspendisse  potenti Maecenas quis risus ornare tincidunt cursus condimentum nunc Morbi rutrum purus lectus vestibulum urna tincidunt sit amet Maecenas suscipit massa quis sodales dignissim Pellentesque non augue diam ultrices tincid  unt Nulla lacinia urna Nulla luctus augue dapibus facilisis Nullam auctor odio sed mollis risus Donec ru  trum nisi risus fringilla diam malesuada eget Sed mauris libero Suspendisse laoreet metus vel volutpat mattis Donec lacinia venenatis lorem pharetra justo congue Praesent felis metus bibendum nec augue dictum semper elit Sed suscipit velit mauris convallis tellus egestas laoreet vel condimentum felis congue nunc Morbi lorem te  mpus bibendum lorem quis vulputate felis Sed aliquet ero  s dui auctor tempor Sed varius auctor sem vel pellentesque Proin eleifend lorem sed scelerisque interdum elit dui commod  o diam posuere sem purus eget quam Nullam placerat vel felis hendrerit Mauris volutpat lobortis arcu sit amet pulvinar Etiam sed ipsum eget erat maximus varius Pellentesque sit amet sagittis nulla Donec sed dolor nibh Nunc felis turpis Nulla sodales enim turpis bibendum scelerisque Mauris placerat sem non sodales turpis Curabitur ligula purus Mauris massa magna vulputate sit amet neque sed commodo pell  entesque arcu Interdum malesuada fames ante ipsum primis faucibus Suspendisse tincidunt enim Class aptent taciti sociosqu litora torquent per conubia nostra per inceptos himenaeos Pellentesque semper nulla sit amet ullamcorper Nunc tincidunt turpis varius mollis Integer  lorem urna luctus purus convallis convallis velit lobortis accumsan turpis ornare Quisque viverra nulla sem interdum imperdiet hac habitasse platea dictumst Suspendisse blandit massa tortor vel accumsan sem efficitur sit amet Curabitur urna justo pharetra bibe  ndum non euismod vitae tortor Vestibulum pharetra nunc efficitur pellentesque Curabitur mattis sollicitudin lorem pulvinar hendrerit Nunc magna nulla aliquet libero venenatis tristique sapien Donec placerat lacus luctus Integer consequat vitae risus congue Pellentesque consequat est tempor malesuada luctus Sed mollis viverra arcu accumsan metus gravida Cras laoreet pretium dolor placerat Vestibulum porta lorem imperdiet congue risus luctus velit mollis libero massa diam quis nisi sem tincidunt pulvinar Praesent vestibulum semper eleifend Aenean blandit urna enim gravida sit amet aliquet magna maximus Cras varius ligula eros mattis sem rutrum sed Etiam mattis leo massa quis sollicitudin dolor sagittis Cras volutpat erat gravida lacinia odio ante rutrum erat non semper risus erat Maecenas bibendum eget turpis non suscipit Duis blandit diam sollicitudin lacus vehicula porta Nulla mattis sapien dignissim aliquet purus arcu commodo ligula tincidunt erat urna dui risus nunc varius quis dolor quis rhoncus varius libero Cras rutrum est pretium egestas justo enim cursus sem aliquam sapien nisi quis turpis Duis sit amet efficitur lacus Curabitur magna justo volutpat quis euismod nec tincidunt eget | 75 240 |

Erro de português

1 erro = input().split(".")

2 answer = ""

3

**4 if** erro[0] == “" and erro[1] == "":

5     erro = erro[1:]

6

**7 for** phrase **in** erro:

8     **if** **not** len(phrase):

9         answer += "."

10         **continue**

11

12     **if** len(answer): answer += "."

13

14     **for** i, character **in** enumerate(phrase):

15         **if** character.isspace():

16             answer += character

17         **else**:

18             answer += phrase[i:][0].upper() + phrase[i:][1:]

19             **break**

20

**21 print**(answer)

isspace é um método que testa se o caractere é um caractere de espaço. Um == “ “ já funcionaria, mas o isspace é mais ‘pythonico’.

O if da linha 4-5 existe porque se os dois primeiros caracteres do input forem pontos, o split gera uma entrada a mais, desnecessária.

| Instâncias de Entrada | Instâncias de Saída |
| --- | --- |
|  |  |
| t.t.t.t.t.t. | T.T.T.T.T.T. |
| frase sem ponto em lugar algum | Frase sem ponto em lugar algum |
| frase . . com muitos espacos . | Frase . . Com muitos espacos . |
| Frase que ja comeca com f maiusculo. | Frase que ja comeca com f maiusculo. |
| fRASE QUE TEM TUDO MAIUSCULO MENOS. o QUE DEVERIA ESTAR | FRASE QUE TEM TUDO MAIUSCULO MENOS. O QUE DEVERIA ESTAR |
| nada, aqui. faz! sentido? | Nada, aqui. Faz! sentido? |
| ……. | ……. |
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Freguês

1 served = input()

2 not\_eaten = input()

3

4 johnTrashed = 0

5 johnServed = 0

6

**7 for** character **in** served:

8     **if** character.lower() **in** "john":

9         johnServed += 1

10

**11 for** character **in** not\_eaten:

12     **if** character.lower() **in** "john":

13         johnTrashed += 1

14

**15 print**("%d %d" % (johnServed - johnTrashed, johnTrashed))

| Instâncias de Entrada | Instâncias de Saída |
| --- | --- |
| ABC  ABC | 0 0 |
| JOHN  JOHN | 0 4 |
| ABHN | 2 0 |
|  | 0 0 |
| POTATO  PTAT | 2 0 |
| john  JOHN | 0 4 |
| JOAN  naoj | 0 3 |
| DECKAJ  JAKCED | 0 1 |
| john  jn | 2 2 |
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Gradiente

**1 import** string

2

3 gradient = input()

4 answer = ""

5

**6 for** character **in** gradient:

7     **if** character **in** string.uppercase:

8         answer += 'U'

9     **elif** character **in** string.lowercase:

10         answer += 'L'

11     **elif** character **in** string.digits:

12         answer += 'D'

13     **elif** character **in** string.whitespace:

14         answer += 'W'

15

**16 print(**answer)

| Instâncias de Entrada | Instâncias de Saída |
| --- | --- |
|  | WWWWWW |
| aaaaa | LLLLL |
| AAAAA | UUUUU |
| 11111 | DDDDD |
| li6s6n ullaVa ucto roFio s6dVoll isrisSs Donecrutr u4nisi | LLDLDLWLLLLULWLLLLWLLULLWLDLULLLWLLLLLULWULLLLLLLLWLDLLLL |
| aAAAAAAAa | LUUUUUUUL |
| a793812b | LDDDDDDL |
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