

Inverse Case

Write a program that, given a string s , inverts the case of every character. That is to say, if a character is in upper case, turn it into lowercase and if it is in lower case, turn it into upper case.

Input

Input consists of one line, the string s , which satisfies $1 \leq |s| \leq 10^3$, where $|s|$ denotes the length of the string s . Each character of the string, except for the trailing newline character, will have an ASCII value between 32 and 126, inclusive.

Output

Output consists of one line, containing the case-inversion of s .

Sample Input 1	Sample Output 1
Sir Henry Morton Stanley, I presume?	sIR hENRY mORTON sTANLEY, i PRESUME?

Sample Input 2	Sample Output 2
Dr. Livingstone, I presume?	dR. lIVINGSTONE, i PRESUME?

Sample Input 3	Sample Output 3
a	A

Sample Input 4

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Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt, explicabo. Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem sequi nesciunt. Neque porro quisquam est, qui dolorem ipsum quia dolor sit amet, consectetur, elit, sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt, explicabo. Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem sequi nesciunt. Neque porro quisquam est, qui dolorem ipsum quia dolor sit amet, consectetur, elit, sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt, explicabo.
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Sample Output 4

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sED UT PERSPICIATIS UNDE OMNIS ISTE NATUS ERROR SIT VOLUPTATEM ACCUSANTIUM DOLOREMQUE LAU
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Sample Input 5	Sample Output 5
CrAzY StRiNg	cRaZy sTrInG