DNA Matching

Case Western Reserve University has been known for the Bio-Chemistry Department. The school always tried to research in Bio-Chemistry using computer technology. In the following problem, we would like to program an RNA generation algorithm to help decrypt several organisms' genome data.

The genome data consists of a single string of length n that only contains 4 letters ATCG. These letters correspond to the 4 bases: adenine (A), cytosine (C), guanine (G), and thymine (T). With this string, we would like to create a new RNA string decoded from the genome data, which consists of 4 bases: adenine (A), uracil (U), cytosine (C), and guanine (G). The pairing of these bases will be of the following: A to U, T to A, C to G, and G to C. With the RNA decoded, the school can have a better understanding of the studied subject. Could you please help make this possible?

Input

A string of length n ($n \leq 1000$) which is the DNA data of the organism

Output

A string which is the RNA decoded from input genome data.

Sample Input

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ATCG
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Sample Output

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UAGC
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