

Transcribing DNA into RNA

Orr Shomroni

21 Oktober, 2021

Problem

An **RNA string** is a *string* formed from the *alphabet* containing 'A', 'C', 'G', and 'U'.

Given a *DNA string* t corresponding to a coding strand, its transcribed *RNA string* u is formed by replacing all occurrences of 'T' in t with 'U' in u .

Given: A *DNA string* t having *length* at most 1000 nt.

Return: The transcribed RNA string of t .

Sample Dataset

GATGGAACCTTGACTACGTAAATT

Sample Output

GAUGGAACUUGACUACGUAAAUU

```
def wrap(string):
    s=''
    for i in range(0,len(string),80):
        s+=string[i:i+80]
        s+='\n'
    return s

f=open("/home/orr/Dropbox/rosalind/bioinformatics_stronghold/rosalind_rna.txt",'r')
t=f.readlines()[0].replace("\n","")
u=t.replace("T","U")
string="The transcribed RNA string of t is "+u
print(wrap(string))
```

```
## The transcribed RNA string of t is AACGUCACAUGUUGCGGGUCCAUCGGUCUCCCUGGGGCGAAGUUU
## UGAUGGGUUCGUACUCCGUGACUAGGCGUUAAGGCAGGAUUGUGAUGACGUACUCAGCUCGCUGCAUUGGAAUAAUCAAG
## AGCACUGCCUAUAUGGGAGACAGGUGGGCGGACGUAAAUUCCACUGGCUAGUGUAUGACACCCUUAUAUCUUGCCGGCC
## ACAUCCGUGGCGAAGUAAUCUGAUCUCUUAAGGACUAAGGCGGCUUUGCGACAAAGGACUGCGAUGAAUAUGGUAAGGCA
## AUUUUCGUUAAAAGUCGCAAUGAUCAGGCUCUUAUUUGCGUUCUGAAGACAAAGUAUUAUUCACUCUCUGCUAACGGUCC
## UCUUACGUGGUCCGAAGACAAAGGAUUAUAGUAGAUUAUAGCGGCAAAGGUACUCUCUAUCAUAGGCUCGAGAUACACAA
## CACCCUUUUCUGAUUGCGAAUUAUUCACAAUUAACAGAAGAACCGUCUUCUCCGAGACGAUUCGGGAACAUGGGAUUUC
## UUAUAAGUCGGACCGAUUUGCAUUCUACUUGGCCAGAUUCGUUUCCGAUAGGCGGUUUCAGACGAAAUUUGGCGCGAU
## UCAGCGGUGCCUUCGCGGCGGGCAGAUUUACCGGUCACCUUUUGAGAGGCACAUCUAAAUGCAACUAGCGCCAGGGCA
## UUCAGUUGCGAUGCUUAGUCUGCGACGCAUGAAUAGUACGUCGUUAUGGCCUCUUAACUUGGUGGGGUAGUAAGGUUGAC
## CGCCUCCAGAAGUUAUUGAUUGUCCAUGUGAUUUUGGUAUCCCUAGGCGAUAAACGUCUGAAACAUCCAGGUUGGAUAC
## GCGAAGAGCGUCUCGAAGUAGUGUCUGGCGUCCAGCAUGUGGGAGCGAGCCACUGAUACACCCAAUACGUUCCUAAACA
## AAAGACCGACCCGCGGA
```