1, download the human reference genome from NCBI (GRCh38) (http://www.ncbi.nlm.nih.gov/assembly/GCF\_000001405.26)

2,write your own program. This program should enable us to do fast search in the reference genome.

For example, please find out the position (coordinate in which chromosome, starting postion) in the human reference genome for “ACTGCCAGACACCATTTCATGAGTCCTAATCCCCACATTAAGCATAAGAGGTGCACACTCTCCTCCTATGGGGGAAACTGAGGTACGAAGAACTAAAGTGACTTTCCCACAGCTGGTGGGAGGCAGACGGGAAATTCACA”

Requirement

1, the program must run on the server.

2, the program should be written in perl, python, C, C++, or Java. It is not allow to embed the blast, clustealw program.

3, your score will be evaluated by the speed of your program.