Xiheng He

Lisanne Friedrich

Exercises for Algorithmic Bioinformatics II

Assignment 3

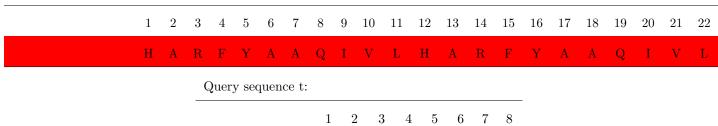
Xiheng He

November 2021

Exercise 3 (FASTA offsets, 10P):

Construct manually, as demonstrated in the lecture FASTA, the FASTA offset list and offset vector for the database sequence s=HARFYAAQIVLHARFYAAQIVL and the query t=VDMAAQIA. Use ktup=2 and hash the query.

Database sequence s:



V D M A A Q I A

hash table:

ktup	НА	AR	RF	FY	YA	AA	AQ	QI	IV	VL	LH
position in s	1,12	2,13	3,14	4,15	5,16	6,17	7,18	8,19	9,20	10,21	11
position in t	-	-	-	-	-	4	5	6	-	-	_
offset	-	-	-	-	-	2,13	2,13	2,13	-	-	_

offset vector:

- - - - - 3 - - - - 3 - - - - 3