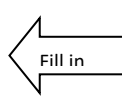


Problem 5.

a) Given string $S = \text{"DABRACADABRAC\$"}$, categorize suffixes of S as L-type and S-type:

0	1	2	3	4	5	6	7	8	9	10	11	12	13
D	A	B	R	A	C	A	D	A	B	R	A	C	\$
L	S	S	L	S	L	S	L	S	S	L	S	L	S



b) List all LMS-substrings of S :

LMS-substring	Starting position of this LMS-substring
\$	13
AC\$	11
ABRA	8
ADA	6
ACA	4
ABRA	1

c) Given SA , do the following:

- Find the c-buckets for each character in S ;
- Place positions of LMS-substrings at the end of c-buckets;
- Induce sort L-type suffixes of S (place positions of L-type suffixes into SA);
- Induce sort S-type suffixes of S .

Index i	0	1	2	3	4	5	6	7	8	9	10	11	12	13
SA	13	1	8	11	4	6	2	9	12	5	0	7	3	10

6) Rename LMS-substrings, fill in array N with names of LMS, and construct $T1$, whose characters are integer-names of LMS-substrings of S .

Index i	0	1	2	3	4	5	6	7	8	9	10	11	12	13
N		1			3		4		1			2		0

T1 = 1 3 4 1 2 0