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I think, we can first make a mapping into binary numbers and then a mapping of each binary digit into a bipolar digit. In this problem, each character in the name can be replaced by its ASCII code, which in turn can be changed to a binary number and then each binary digit 0 can be replaced by -1.

ASCII codes

a	97	1100001	A	65	1000001
b	98	1100010	B	66	1000010
c	99	1100011	C	67	1000011
d	100	1100100	D	68	1000100
e	101	1100101	E	69	1000101
f	102	1100110	F	70	1000110
g	103	1100111	G	71	1000111
h	104	1101000	H	72	1001000
i	105	1101001	I	73	1001001
j	106	1101010	J	74	1001010
k	107	1101011	K	75	1001011
l	108	1101100	L	76	1001100
m	109	1101101	M	77	1001101
n	110	1101110	N	78	1001110
o	111	1101111	O	79	1001111
p	112	1110000	P	80	1010000
q	113	1110001	Q	81	1010001
r	114	1110010	R	82	1010010
s	115	1110011	S	83	1010011
t	116	1110100	T	84	1010100
u	117	1110101	U	85	1010101
v	118	1110110	V	86	1010110
w	119	1110111	W	87	1010111
x	120	1111000	X	88	1011000
y	121	1111001	Y	89	1011001
z	122	1111010	Z	90	1011010

So we have

X									
Clinton	1000011	1101100	1101001	1101110	1110100	1101111	1101110		
Hillary	1001000	1101001	1101100	1101100	1100001	1110010	1111001		
Lewisky	1001100	1100101	1110111	1101001	1110011	1101011	1111001		
Kenstar	1001011	1100101	1101110	1110011	1110100	1100001	1110010		
Y									
President	1010000	1110010	1100101	1110011	1101001	1100100	1100101	1101110	1110100
FirstLady	1000110	1101001	1110010	1110011	1110100	1001100	1100001	1100100	1111001
SweetGirl	1010011	1110111	1100101	1100101	1110100	1000111	1101001	1110010	1101100
Gentleman	1000111	1100101	1101110	1110100	1101100	1100101	1101101	1100001	1101110

Experimental results

We tested this algorithm with 1, 2 5 and 10 noisy bits.

We understood that the BAM storage capacity is ultimately determined by the noise. When we changed the number of noisy bits to 10, we had a problem to recall. We encountered to unreliable recall.

Also , $E_{\min} = -3087$.

And the number of iteration was $k=3$





