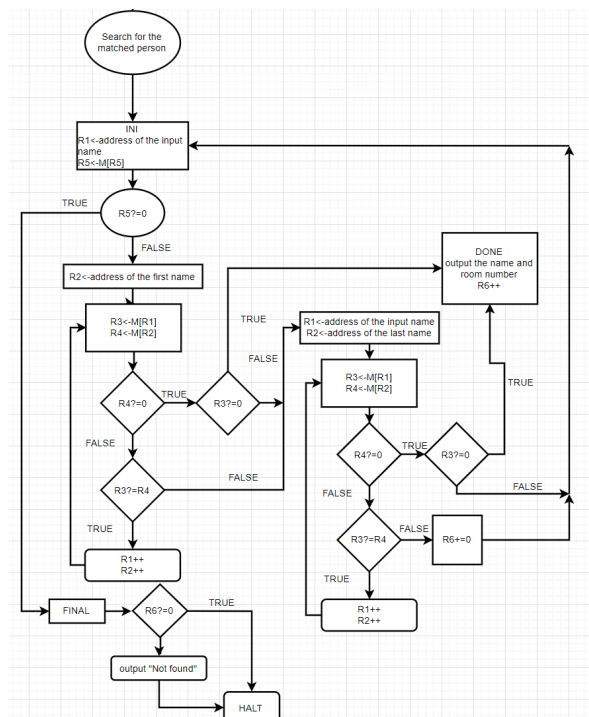
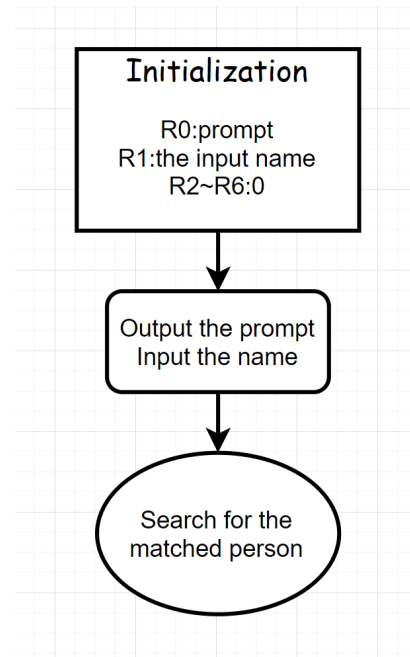


1.Algorithm



2.Essencial parts

SEARCH	LD	R5, LinAd	;R5 is the pointer that connects the list
INI	LEA	R1, Name	;R1<-address of the input name
	LDR	R5, R5, #0	;pointeri->pointeri+1
	BRZ	Final	;Final means the ending of search
	LDR	R2, R5, #2	;R2<-address of the first name
Next1	LDR	R3, R1, #0	;R3 contains the character of the input name
	LDR	R4, R2, #0	;R4 contains the character of the name from the list
	BRZ	CHECK1	;check whether M[R1] equals M[R2]
FCMP	NOT	R3, R3	
	ADD	R3, R3, #1	
	ADD	R3, R3, R4	
	BRnp	LCMP	;compare the input name with the last name

	ADD	R1,R1,#1	
	ADD	R2,R2,#1	
	BRnzp	Next1	;compare the charater one by one
CHECK1	ADD	R3,R3,#0	
	BRZ	Done	;if M[R1] equals M[R2],jump to the Done
LCMP	LEA	R1,Name	
	LDR	R2,R5,#3	;R2<-address of the last name
Next2	LDR	R3,R1,#0	
	LDR	R4,R2,#0	
	BRZ	CHECK2	;check whether M[R1] equals M[R2]
	NOT	R3,R3	
	ADD	R3,R3,#1	
	ADD	R3,R3,R4	
	BRnp	Fail	;fail to match with this name
	ADD	R1,R1,#1	
	ADD	R2,R2,#1	
	BRnzp	Next2	
CHECK2	ADD	R3,R3,#0	
	BRZ	Done	;if M[R1] equals M[R2],jump to the Done
	BRnzp	INI	;compare the input name with the next person
Fail	ADD	R6,R6,#0	
	BRnzp	INI	;compare the input name with the next person
Final	ADD	R6,R6,#0	
	BRZ	NotF	
	BRnzp	END	
NotF	LEA	R0,RESULT1	
	PUTS		

3.Q&A

How do you compare the two strings?

It compare the two strings character by character. If it fails to match the first name, compare the last name. If it fails again,trap to the next pointer.