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BSCPE-4

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C.) L = {w ϵ (a.b)\* | w contains at least 5 occurences of **b**}

* **STATE DIAGRAM**

Q4

Q6

Q3

Q2

Q1

b

b

b

b

b

Q5

a a a a a a,b

* **TABLE**

|  |  |  |
| --- | --- | --- |
|  | a | b |
| Q1 | Q1 | Q2 |
| Q2 | Q2 | Q3 |
| Q3 | Q3 | Q4 |
| Q4 | Q4 | Q5 |
| Q5 | Q5 | Q6 |
| Q6 | Q6 | Q6 |

Q = Q1, Q2, Q3, Q4, Q5, Q6

Ʃ = a,b

Initial State = Q1

Final State = Q6

* **CODE**

#include<stdio.h>

#include<string.h>

main()

{

char str[1000],temp;

int i=0,count=0,a,b;

printf("Enter string: ");

gets(str);

count=0;

b=strlen(str)-1;

for(a=0;a<=b;a++){

if(str[a]=='a'||str[a]=='b'){

if(str[a]=='b'){

count++;

}

}

}

if(count>=5){

printf("Valid");

}

else{

printf("\nInvalid");

}

return 0;

}