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| Write a C program to implement a DFA accepting strings made of {a,b,c} having ‘abc’ as a substring. (USE TRANSITION TABLE INSTEAD OF IF-ELSE) |
| **ALGORITHM**  **Input**: A string with characters ‘a’, ‘b’ and ‘c’  **Output**: Whether the given string is valid or not.  **Data structures**: Array  Step 1: Initialize a character array and input the string.  Step 2: Declare two integer variables, state and i.  Step 3: Initialize a transition array, transition[4][3]={1,0,0,1,2,0,1,0,3,3,3,3}  Step 4: while input[i]!=’\0’, do  4.1: if input are not a,b and c then set state=-1,break.  4.2: state=transition[state][(input[i]-'a')].  4.3: increment i.  Step 4: if state is equal to final state print valid string else print invalid string.  **DFA**    **Transition Table**    **OUTPUT** |