

Write a C program to simulate a Deterministic Finite Automata (DFA) for the given language.

Program:

```
#include<stdio.h>
#include<string.h>
#define max 20
int main()
{
int trans_table[4][2]={1,3},{1,2},{1,2},{3,3}};
int final_state=2,i;
int present_state=0;
int next_state=0;
int invalid=0;
char input_string[max];
printf("Enter a string:");
scanf("%s",input_string);
int l=strlen(input_string);
for(i=0;i<l;i++)
{
if(input_string[i]=='a')
next_state=trans_table[present_state][0];
else if(input_string[i]=='b')
next_state=trans_table[present_state][1];
else
invalid=i;
present_state=next_state;
}
if(invalid==l)
{
printf("Invalid input");
}
else if(present_state==final_state)
printf("Accept\n");
else
printf("Don't Accept\n");
}
```

Output:

```
Enter a string:10011
Invalid input

...Program finished with exit code 0
Press ENTER to exit console.
```