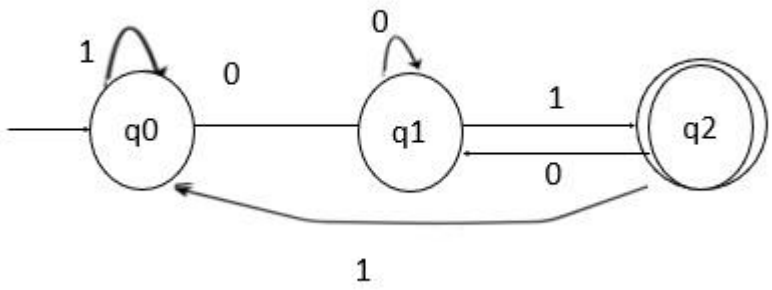

Here,

- q0 − On input 0 it goes to state q1 and on input 1 it goes to itself.
- q1 − On input 0 it goes to itself and on input 1 it goes to State q2.
- q2 − On input 0 it goes to State q1 and on input 1 goes to State q0. State to q2 is the final state.

Example

Following is the C program to construct a DFA with ∑ = {0, 1} that accepts the languages ending with “01” over the characters {0, 1} -

```
/******************************************************************************

                Online C Compiler.
        Code, Compile, Run and Debug C program online.
Write your code in this editor and press "Run" button to compile and execute it.

*******************************************************************************/
#include<stdio.h>
#define max 100
int main() {
  char str[max],f='a';
  int i;
  printf("enter the string to be checked: ");
  scanf("%s",str);
  for(i=0;str[i]!='\0';i++) {
```

```
    switch(f) {
      case 'a': if(str[i]=='0') f='b';
        else if(str[i]=='1') f='a';
      break;
      case 'b': if(str[i]=='0') f='b';
        else if(str[i]=='1') f='c';
      break;
      case 'c': if(str[i]=='0') f='b';
        else if(str[i]=='1') f='a';
      break;
    }
  }
  if(f=='c')
    printf("\nString is accepted");
  else printf("\nString is not accepted");
    return 0;
}
```