## System Software Lab Assignment – 1

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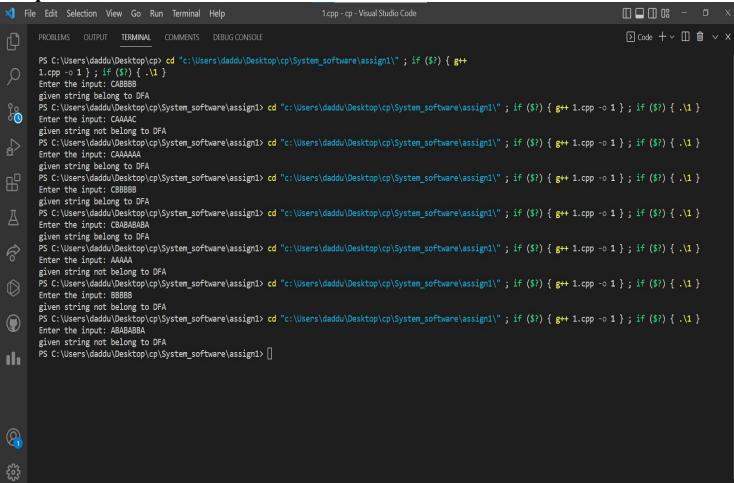
Ques: 1. Write a program to convert Regular Expression to DFA. Ans:

```
#include <bits/stdc++.h>
using namespace std;
void DFA(string str, int N)
  // If n <= 1, then print No
  if (N <= 1)
     cout << "given string not belong to DFA";</pre>
     return;
  int count = 0;
  if (str[0] == 'C')
     count++;
     // Traverse the rest of string
     for (int i = 1; i < N; i++)
        if (str[i] == 'A' \parallel str[i] == 'B')
           count++;
           break;
     cout << "given string not belong to DFA";</pre>
     return;
```

```
if (count == N)
    cout << "given string belong to DFA";
else
    cout << "given string not belong to DFA";
}
int main()
{
    string str;
    cout << "Enter the input: ";
    cin >> str;
    int N = str.size();
    DFA(str, N);
    return 0;
}
```

## **Output:**

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