



Lesson 26 ChatBot

We made a program where the user teaches some signs to the computer, but there was a problem if the user closes the program, he would lose the data stored in it, and he needs to store it again.

In this lesson, we will learn about some new commands that will help us with this. We are going to use files.

To open a new file we need to include the **fstream** library

The commands are as follows:

ofstream gammal_chat_bot;

//write only file

ifstream gammal_chat_bot;

//read only file

fstream gammal_chat_bot;

//read and write

```
#include <iostream>
```

```
#include <fstream>
```

```
#include <string>
```

```
using namespace std;
```

```
int main() {
```



```
ofstream gchat("gammal_chat_bot.txt");  
//create new file  
if (gchat.is_open()) {  
//check if it's open  
cout << "File is open\n";  
gchat << "How are you?\n";  
//write in file  
gchat << "I am fine ,what about you?\n";  
}  
else  
cout << "Error: cannot open file\n";  
}
```

No we are going to try read and write in a file :

```
#include <iostream>  
#include <fstream>  
#include <map>  
#include <string>  
using namespace std;  
map <string, string> m;  
void answer() {  
string q;  
cin.ignore();  
//to not save the \n
```



```
getline(cin, q);  
//scan the whole line  
if (m[q] != "")  
    cout << m[q] << endl;  
else  
    cout << "I donnot understand the question\n";  
}  
  
int main() {  
    fstream gchat("gammal_chat_bot.txt",ios::app|ios::in);  
//read and write file  
    if (gchat.is_open()) {  
        start:  
        string q, a;  
        while (getline(gchat, q)) {  
            getline(gchat, a);  
            m[q] = a;  
//question and the answer  
        }  
        gchat.close();  
        cout << "What would you like to do?\n";  
        cout << "1- add Q&A\n"  
            << "2- Ask a question\n";  
        int ans;
```



```
cin >> ans;
if (ans == 1) {

    cout << "Type the question:\n";
    cin.ignore();
    getline(cin, q);
    cout << "Type the answer:\n";
    getline(cin, a);
    m[q] = a;
    gchat.open("gammal_chat_bot.txt",ios::app);
    gchat << q << endl << a << endl;
    gchat.close();
    //close the file
}
else if (ans == 2) {
    answer();
}
goto start;
}
else
    cout << "Error: cannot open file\n";
}
```