**C++ To Assembly Compiler**

**Section: GR3**

**Group Members:**

1-Hashir Kaleem Khan (17K-3948)

2-Emaz (16K-4079)

**Introduction:-**

We have developed a program using pure Assembly Language which converts entered C++ code to Assembly. It covers the following instructions:

-cout

-cin

-decisions

-for loop

-while loop

-functions

The project was so complex that we had to implement almost every concept of Assembly Language like Arrrays, Strings, Cmp, Jumps, Labels, Procs, Filing, Recursion and much more.

**Approach:-**

The program reads user input from a file using **Assembly Filing** and saves it in an array for future use. Then it runs a recursive word by word comparison Label to fetch instructions. When matched correctly, it starts to generate equivalent Assembly output using our defined techniques.

**Results and Discussion:-**

In this project we were so much dedicated that we didn’t even took care of our time and sleep. All this dedication lead us to this masterpiece through which we have learned so much. The vast concepts of Assembly Language like Filing and decision making are beyond epic and fun to learn. This project has not only improved our coding but has helped us in repairing and growing our concepts. Thank You for making us do this task.

**Conclusion:-**

We have tried our best to deliver what was promised. Although there are some bugs but the program is still one of the rearest thing ever made. We insist you to go through the whole code at least once, you will see all the hard work behind logic making and handling bugs. InshaAllah you will be satisfied.

**Code:-**

You can find the code text file in the same folder.