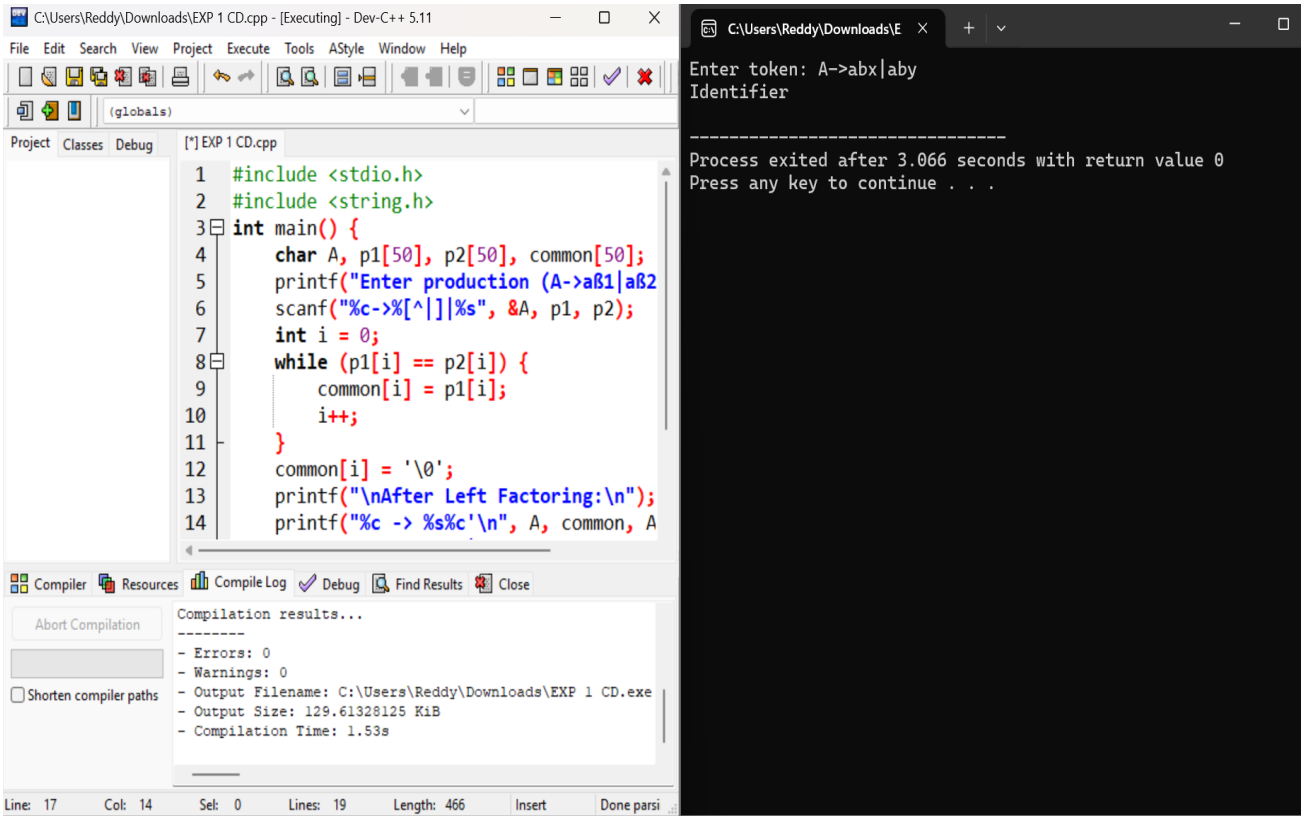
7. C Program to Perform Left Factoring

```
#include <stdio.h>
#include <string.h>
int main() {
    char A, p1[50], p2[50], common[50];
    printf("Enter production (A->αβ1|αβ2): ");
    scanf("%c->%[^|]|%s", &A, p1, p2);
    int i = 0;
    while (p1[i] == p2[i]) {
        common[i] = p1[i];
        i++;
    }
    common[i] = '\0';
    printf("\nAfter Left Factoring:\n");
    printf("%c -> %s%c'\n", A, common, A);
    printf("%c' -> %s | %s\n", A, p1 + i, p2 + i);
    return 0;
}
```

Output:


C:\Users\Reddy\Downloads\EXP 1 CD.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
(globals)
Project Classes Debug
[*] EXP 1 CD.cpp
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#include <string.h>
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int i = 0;
while (p1[i] == p2[i]) {
common[i] = p1[i];
i++;
}
common[i] = '\0';
printf("\nAfter Left Factoring:\n");
printf("%c -> %s%c'\n", A, common, A
Compiler Resources Compile Log Debug Find Results Close
Abort Compilation
Shorten compiler paths
Compilation results...

- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\Reddy\Downloads\EXP 1 CD.exe
- Output Size: 129.61328125 KiB
- Compilation Time: 1.53s
Line: 17 Col: 14 Sel: 0 Lines: 19 Length: 466 Insert Done parsi
C:\Users\Reddy\Downloads\E
Enter token: A->abx|aby
Identifier
Process exited after 3.066 seconds with return value 0
Press any key to continue . . .