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DEPARTMENT OF COMPUTER ENGINEERING

Semester	T.E. Semester VI– SPCC
Subject	Software Engineering
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Assisting Teachers	Prof. Pankaj Vanvari
Laboratory	M310B

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Title:

Linking different object files

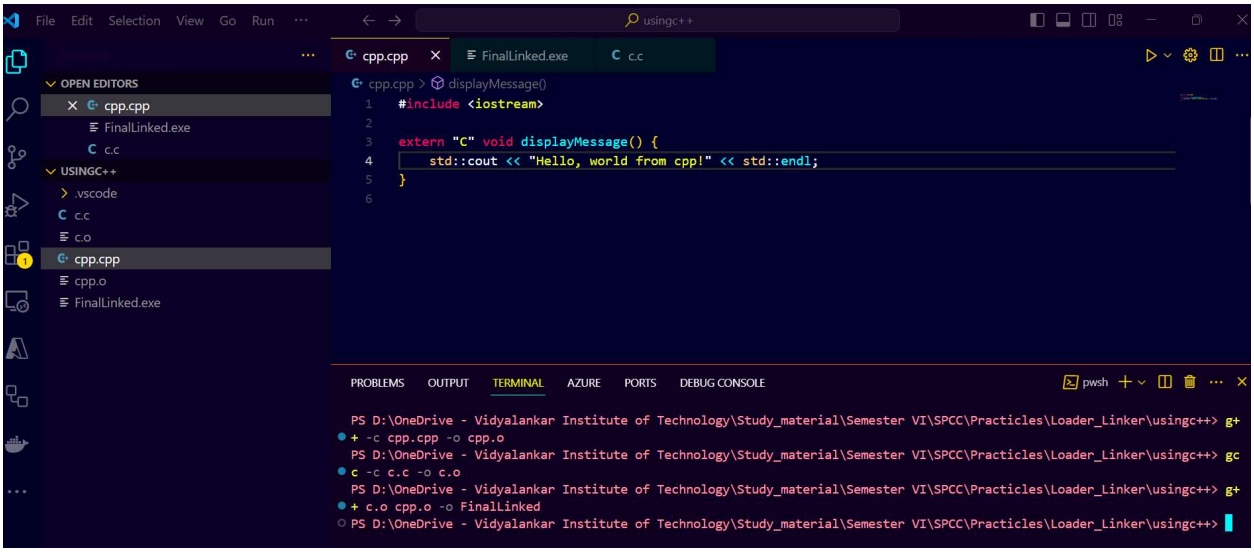
Approach:

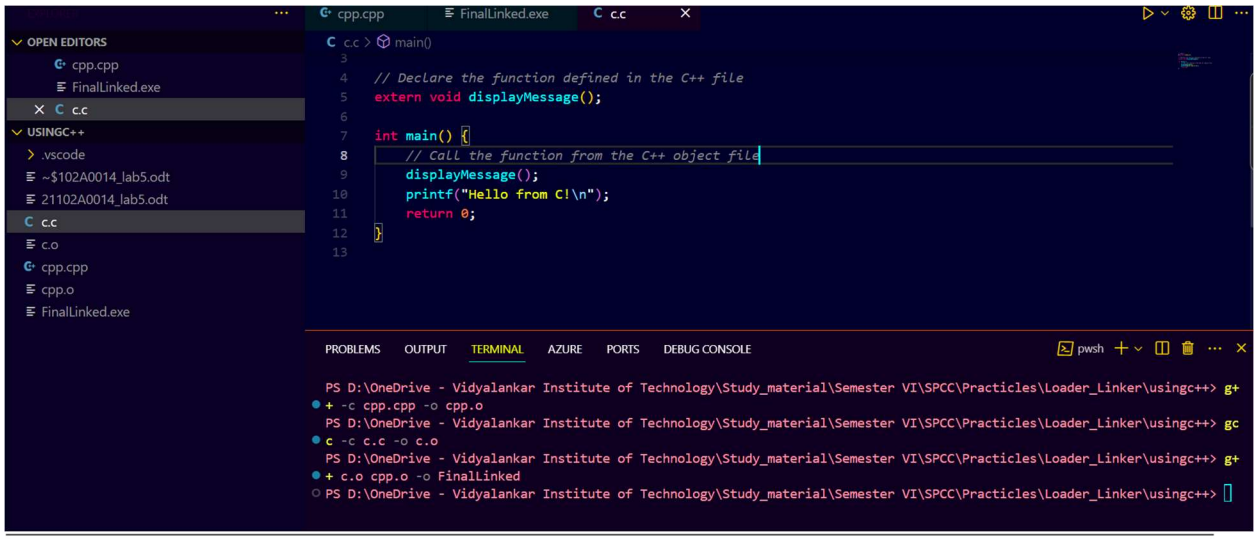
Note: I haved Linked C++ with C

1. File Creation:
    - Started by creating a C++ source file named cpp.cpp
    - The C++ source file contained a basic function named displayMessage() which printed "Hello, world from cpp!"
2. Object File Generation:
    - Compiled the C++ source file cpp.cpp into an object file named cpp.o using the g++ compiler command with the -c option.
    - Command used: g++ -c cpp.cpp -o cpp.o
3. C File Creation:
    - Created a C source file named c.c to demonstrate calling the C++ function from C code.
    - In the C source file, declared the displayMessage() function using the extern keyword to inform the C compiler about the function's existence.

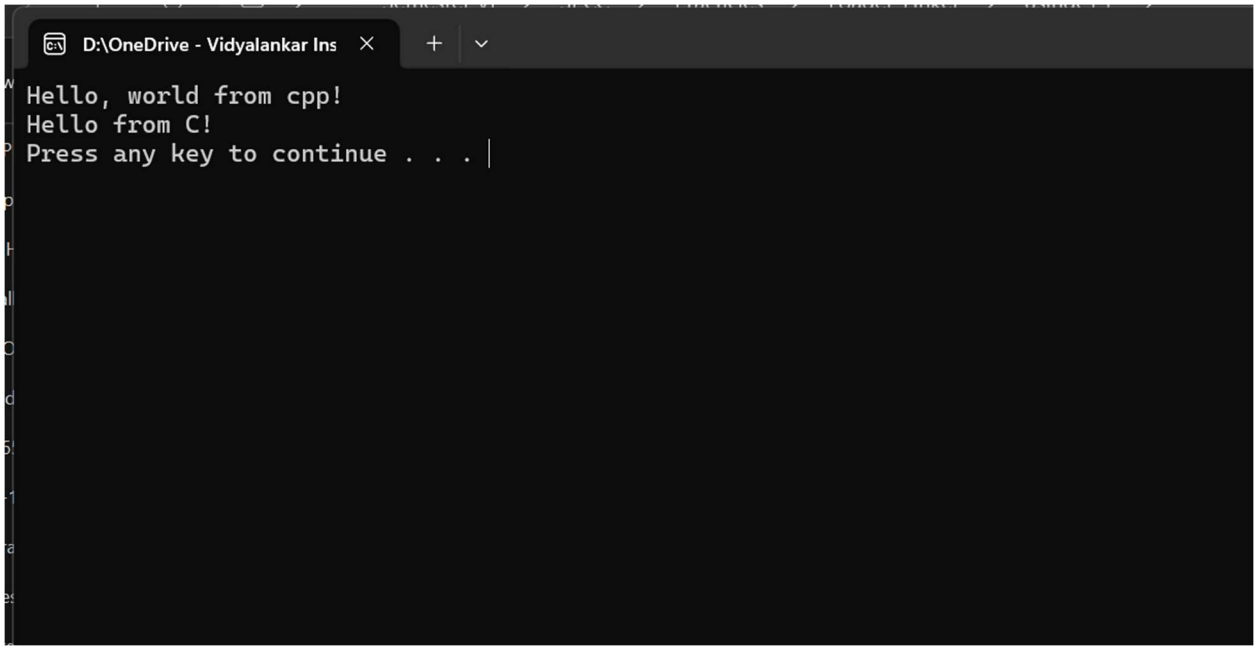
4. Compilation:
    - Compiled the C source file c.c into an object file named c.o using the gcc compiler command with the -c option.
    - Command used: gcc -c c.c -o c.o
5. Linking:
    - Linked the object files c.o and cpp.o together to create an executable named FinalLinked
    - Command used: g++ c.o cpp.o -o FinalLinked
6. Execution:
    - Executed the FinalLinked executable to observe the output produced by calling the displayMessage() function defined in the C++ source file from the C code.

Implementation:




cpp.cpp
FinalLinked.exe
c.c
OPEN EDITORS
cpp.cpp
FinalLinked.exe
c.c
USINGC++
.vscode
~$102A0014_lab5.odt
21102A0014_lab5.odt
c.c
c.o
cpp.cpp
cpp.o
FinalLinked.exe
c.c > main()
// Declare the function defined in the C++ file
extern void displayMessage();
int main() {
// Call the function from the C++ object file
displayMessage();
printf("Hello from C!\n");
return 0;
}
PROBLEMS
OUTPUT
TERMINAL
AZURE
PORTS
DEBUG CONSOLE
pwsh
PS D:\OneDrive - Vidyalankar Institute of Technology\Study_material\Semester VI\SPCC\Practicles\Loader_Linker\usingc++> g++ -c cpp.cpp -o cpp.o
PS D:\OneDrive - Vidyalankar Institute of Technology\Study_material\Semester VI\SPCC\Practicles\Loader_Linker\usingc++> gcc -c c.c -o c.o
PS D:\OneDrive - Vidyalankar Institute of Technology\Study_material\Semester VI\SPCC\Practicles\Loader_Linker\usingc++> g++ c.o cpp.o -o FinalLinked
PS D:\OneDrive - Vidyalankar Institute of Technology\Study_material\Semester VI\SPCC\Practicles\Loader_Linker\usingc++>

End Result:


D:\OneDrive - Vidyalankar Ins
Hello, world from cpp!
Hello from C!
Press any key to continue . . .