**This is a C++ program that converts gallons to liters.**

Here is a step-by-step explanation of each part of the code:

#include <iostream>

This line of code includes the input/output stream library that provides functions for input and output operations in C++.

using namespace std;

This line of code declares that we are using the standard namespace in the program. This allows us to use standard library functions without specifying the namespace.

int main()

{

This is the beginning of the main function of the program. Every C++ program must have a main function, the program’s entry point.

cout<< "Welcome to the Gallon to Litres converter" << endl;

This line of code prints a message to the console that welcomes the user to the converter.

cout << "Enter the number of gallons: ";

This line of code prints a message to the console, asking the user to enter the number of gallons they want to convert to liters.

double gallons;

This line of code declares a double precision variable called gallons to store the value entered by the user.

cin >> gallons;

This line of code reads the value entered by the user from the console and stores it in the gallons variable.

double litres;

This line of code declares a double precision variable called litres to store the result of the conversion.

const double CONVERSION\_FACTOR = 3.7854;

This line of code declares a constant variable called CONVERSION\_FACTOR and assigns it the value of 3.7854. This is the conversion factor used to convert gallons to liters, and it is declared a constant because it should not be changed during the program's execution.

litres = gallons \* CONVERSION\_FACTOR;

This line of code calculates the number of liters by multiplying the number of gallons by the conversion factor and assigns the result to the litres variable.

cout << "The number of litres is: " << litres << endl;

This line of code prints the result of the conversion to the console, using the cout function.

return 0;

This line of code ends the main function and returns the value 0 to the operating system, indicating that the program has been completed successfully.