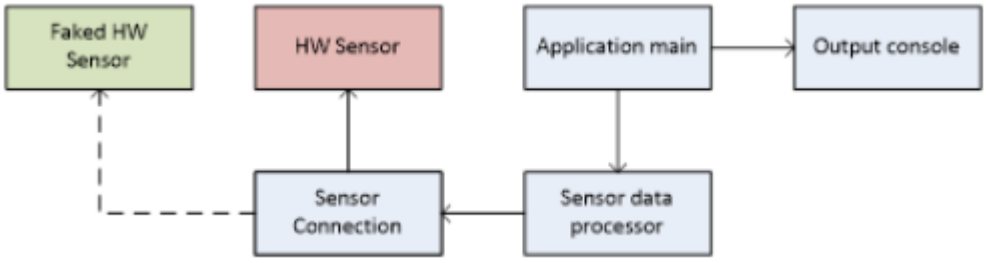
Test Software Engineer – Linux / C++

A tech-savvy customer who is not a programmer himself gave you this diagram.



He wants a simple application where you read from an analogue pressure sensor once a second calculates the corresponding depth at sea.

Not having the said pressure sensor you need to make a **fake** one in software.

What you know is that the real pressure returns a 16 bit unsigned value representing the pressure.

You also know that the hex value of 0x00 equals the pressure at sea-level (1 atm) and 0xFFFF equals is the pressure at 600m depth.
For simplicity's sake the sensor is 100% linear and cannot show any negative values.

Make a simple C++ project where you read a value from the **faked** sensor, calculates the pressure in bar and atm, and shows all values in the console, which updates once a second.

If the pressure changes slowly over time from sea-level to ~50-60 meters and back again, that would be fantastic.

Do not spend too much time on it, we are more interested in the structure of the code than the actual calculations.