Jeremiah Webb

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//#include <stm32l476xx.h> // Comment out this file while using simulator

#include <stdio.h>

#include <stdint.h>

#include <stdbool.h>

**typedef** struct **{**

uint16\_t ID1**;**

uint32\_t ID2**;**

**}** MyType**;**

bool need\_to\_print **=** true**;**

MyType myid**;**

MyType **\***p\_id **=** **&**myid**;**

int main**(**void**)** **{**

myid**.**ID1 **=** 5328**;**

myid**.**ID2 **=** myid**.**ID1 **+** **(**myid**.**ID1 **<<** 16**);**

**if** **(**need\_to\_print**)** **{**

printf**(**"The values of my\_ids in hexadecimal are %04x and %08x, respectively.\n"**,** p\_id**->**ID1**,** p\_id**->**ID2**);**

**}**

printf**(**"These are the addresses of ID1 and ID2: %p and %p,\n"**,** **&**p\_id**->**ID1**,** **&**p\_id**->**ID2**);**

printf**(**"I certify that I, Jeremiah Webb, finished \n"**);**

printf**(**"this work independently.\n"**);**

**while** **(**1**);**

**}**

Printout results:

Graphical user interface, text, application

Description automatically generated