COMP500 / ENSE501: Week 12 – Exercise:

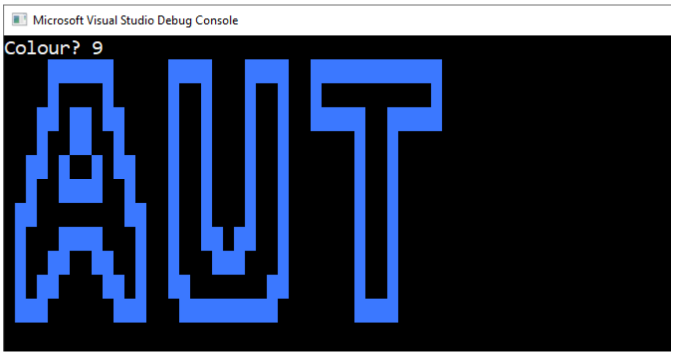
EXERCISE NAME: *AUT Logo*

Declare a 2D **`int`** array containing the following data:

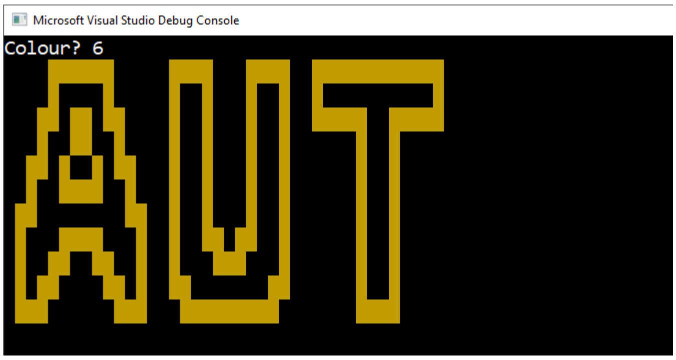
```
{ 0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0 },
{ 0,0,0,0,1,1,1,1,1,1,0,0,0,0,0,1,1,1,1,0,0,0,1,1,1,1,0,0,1,1,1,1,1,1,1,1,1,1,1,1 },
{ 0,0,0,0,1,0,0,0,0,1,0,0,0,0,0,1,0,0,1,0,0,0,1,0,0,1,0,0,1,0,0,0,0,0,0,0,0,0,0,1 },
{ 0,0,0,1,1,0,1,1,0,1,1,0,0,0,0,1,0,0,1,0,0,0,1,0,0,1,0,0,1,1,1,1,1,0,0,1,1,1,1,1 },
{ 0,0,0,1,0,0,1,1,0,0,1,0,0,0,0,1,0,0,1,0,0,0,1,0,0,1,0,0,0,0,0,0,1,0,0,1,0,0,0,0 },
{ 0,0,1,1,0,1,0,0,1,0,1,1,0,0,0,1,0,0,1,0,0,0,1,0,0,1,0,0,0,0,0,0,1,0,0,1,0,0,0,0 },
{ 0,0,1,0,0,1,1,1,1,0,0,1,0,0,0,1,0,0,1,0,0,0,1,0,0,1,0,0,0,0,0,0,1,0,0,1,0,0,0,0 },
{ 0,1,1,0,0,0,0,0,0,0,0,1,1,0,0,1,0,0,1,0,0,0,1,0,0,1,0,0,0,0,0,0,1,0,0,1,0,0,0,0 },
{ 0,1,0,0,0,1,1,1,1,0,0,0,1,0,0,1,0,0,1,1,0,1,1,0,0,1,0,0,0,0,0,0,1,0,0,1,0,0,0,0 },
{ 0,1,0,0,1,1,0,0,1,1,0,0,1,0,0,1,0,0,0,1,1,1,0,0,0,1,0,0,0,0,0,0,1,0,0,1,0,0,0,0 },
{ 0,1,0,1,1,0,0,0,0,1,1,0,1,0,0,1,1,0,0,0,0,0,0,0,1,1,0,0,0,0,0,0,1,0,0,1,0,0,0,0 },
{ 0,1,1,1,0,0,0,0,0,0,1,1,1,0,0,0,1,1,1,1,1,1,1,1,1,0,0,0,0,0,0,0,1,1,1,1,0,0,0,0 }
```

Next, using the **`p1colour.h`** and **`p1colour.lib`** functionality, prompt the user to input a colour value, then print the pattern from the 2D array such that when a 1 appears in the array, a single space of the solid colour is printed based upon the user's input. Note each row of data represents in the 2D array represents a row of output in the console.

An example of the completed program is as follows:



Another example of the completed program is as follows:



Ensure your source code compiles and follows good programming standards. Ensure your program is well tested.