

COMP500 / ENSE501: Week 12 – Exercise:

EXERCISE NAME: *Bar Graphs*

Given the following `main` function:

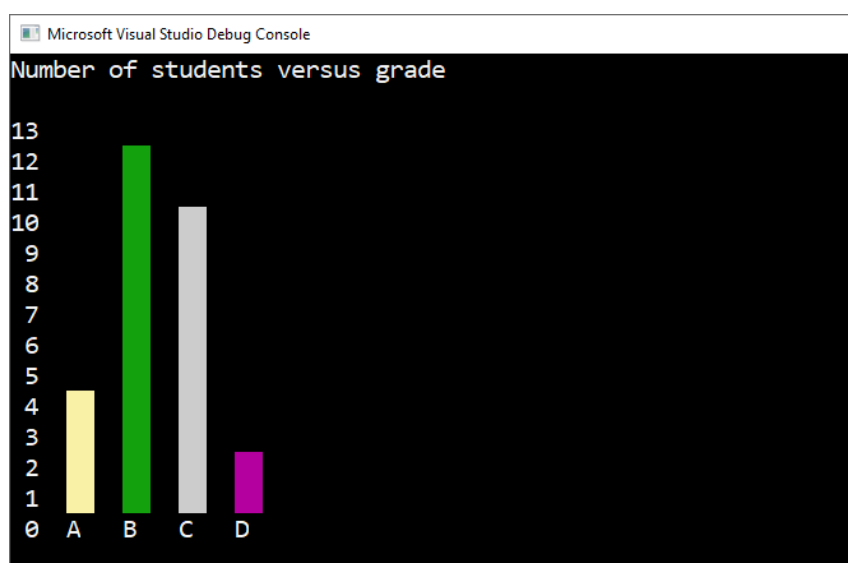
```
1  int main(void)
2  {
3      char title[] = "Number of students versus grade";
4
5      char* labels[] =
6      {
7          "A",
8          "B",
9          "C",
10         "D"
11     };
12
13     int bars[] = { 4, 12, 10, 2 };
14
15     draw_bar_graph(title, bars, 4, labels);
16
17     return 0;
18 }
```

Using the `p1colour.h` and `p1colour.lib` functionality, implement the `draw_bar_graph` function.

Hint: The prototype of `draw_bar_graph` is:

```
void draw_bar_graph(char* p_title, int* p_data, int data_size, char* pp_labels[]);
```

An example of the completed program is as follows:



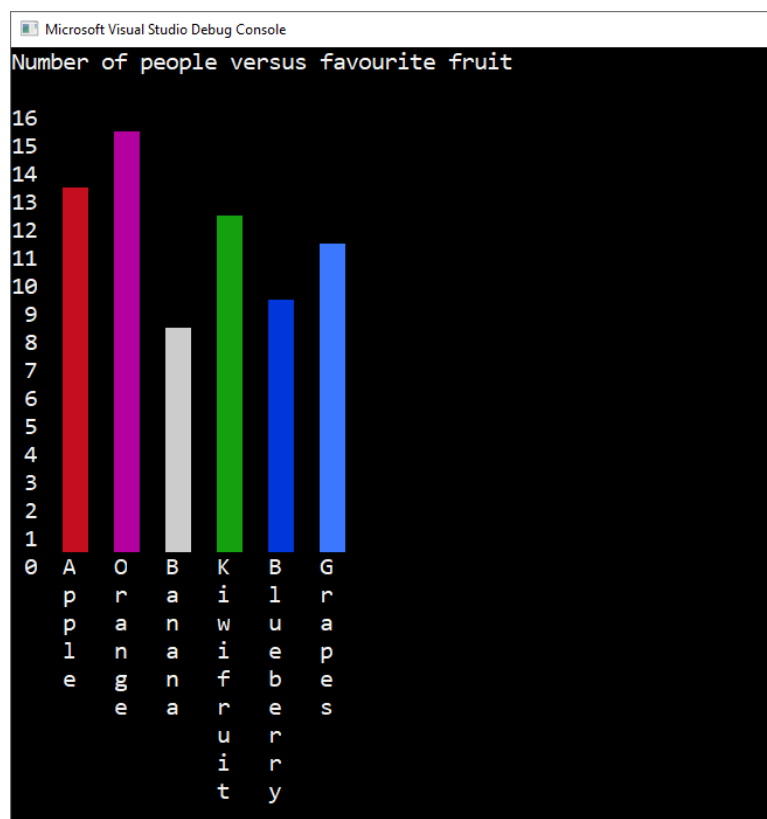
Another **main** function for testing your implementation of **draw_bar_graph** is as follows:

```

1  int main(void)
2  {
3      char fruit_title[] = "Number of people versus favourite fruit";
4
5      char* fruit_labels[] =
6      {
7          "Apple",
8          "Orange",
9          "Banana",
10         "Kiwifruit",
11         "Blueberry",
12         "Grapes"
13     };
14
15     int fruit_bars[] = { 13, 15, 8, 12, 9, 11 };
16
17     draw_bar_graph(fruit_title, fruit_bars, 6, fruit_labels);
18
19     return 0;
20 }

```

An example of the completed program is as follows:



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