1. Write a program that declares 3 strings. The first named `first` should be set to the value "Monday", and be stored on the stack frame for `main`. `second` should be a string literal with the value "Tuesday". `third` should have value "Wednesday" and be on the heap. The pointers for `second` and `third` will be in stack frame for `main`. Then beside it, draw the memory model for your program after all three strings have been created.

```c
int main(void) {
    Section Address Value Label
    Read-only 0x100
                0x104
                0x108
                0x10c
                0x110
                ...
    Heap 0x23c
            0x240
            0x244
            0x248
            0x24c
            0x250
            ...
    stack frame for main 0x454
                          0x458
                          0x45c
                          0x460
                          0x464
                          0x464
                          0x468
                          0x46c
                          0x470
                          0x474
                          0x478
```
2. Add to your program so that it declares an array `string_list` of 3 pointers to char and point the elements to `first`, `second`, and `third`, respectively. So now you have an array of strings. Where is the memory allocated for this array? Add to your memory model diagram as well.

3. So far much of the allocation has happened in the function `main`. Write a new function `build_month_list` that allocates, initializes and returns an array of 3 strings with the values "January", "February", and "March". All the strings should be mutable.

In addition to writing the code, draw a memory diagram illustrating where values are stored immediately before `build_month_list` returns.