Local and Dynamic Storage

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Overview

- Project 2 Code Overview
- Local Variables
- Dynamic memory allocation

Local Variables

- Local variables are stored as part of a function's activation record on the stack

```
void count_down(int n) {
    cout << n << " ";
    if (n > 0)
        count_down(n – 1);
}
```

Dynamic Variables

- Stored in the heap
- Allocated via malloc-family or new
- Deallocated via free or delete
- Process's memory management (provided by libc) maintains free lists
  - Requests more memory from the OS as necessary
- Requires a local or static variable to point to the allocated resource