C Primer #3

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UNIVERSITY OF MINNESOTA

Driven to Discover℠

Arrays

- Declare and initialize entries immediately
  - int class_sections[5] = {30, 20, 40, 25, 0};
  - class_sections is technically not a variable, but a pointer constant
- Declare and initialize entries later
  - int class_sections[5];
  - class_sections[0] = 30; class_sections[1] = 20;
- Arrays as a pointer
  - char my_characters[5];
  - ∗my_characters = ‘E’; ∗(my_characters + 1) = ‘F’;

Arrays cont.

- int class_sections[5] = {30, 20, 40, 25, 0};
- Pointer with malloc
  - int *class_sections;
  - class_sections = (int *)malloc(5 * sizeof(int));
  - class_sections[0] = 30; *(class_sections + 1) = 20;
- size of class_sections ?
- Passing a string
  - Example: string_to_integer_array() in bignum_math.c

Binary/Octal/Hexadecimal in C

- Binary:
  - 11000100
- Octal:
  - 0734 <-> 111, 011, 100
- Hexadecimal:
  - 0xFA09 <-> 1111
- 0 and 0x prefixes for an octal constant and a hexadecimal constant respectively
- %o and %x format specifiers
  - Example: test_constant.c

BigNum Lab

- Go over the handout
- TODOs
- Input/output
- Go over multi-digit arithmetic
- Review base conversion

QUESTIONS?