Intro to C

CSSE 221

Fundamentals of Software Development Honors

Rose-Hulman Institute of Technology

ROSE-HULMAN INSTITUTE OF TECHNOLOGY

Announcements

- Please pass in your quiz, "Intro to C"
- Get packet of quizzes for next 3 days

- Two talks today, both next door in O169:
  - Danny Dig, about interactive parallelism, 10th
  - Rhonda McElroy, about grad school in computing, 11th hour (5:15-6:00)

Announcements

- Optional Exam 3 returned
- VectorGraphics returned
- Capsules done, grades returned

- Simulation Projects due now
  - You should be done coding new features
- Next steps to wrap-up
  - Make sure that everything is cleaned up
  - Prepare for your demo on Wednesday
  - Think about final Team Evaluation

Simulation Project Demo

- Wednesday, Blocks 5-6 (11:45 am–1:30 pm)
  - Union lobby
  - Publicity for your great work!
  - Get a chance to see teammates' projects, too
- Details in specification

Feedback on Java part of course

- While it's fresh in your mind
- Please complete the "plus/delta" survey
  - Plus = anything that worked well for you that I should continue to do the next time I teach the course
  - Delta = any suggestions for improvements
- You may make it anonymous or *nonymous*.

Inverted classroom: It's time to apply your knowledge

- You watched videos and took quiz
- Any questions on configuring your workspace, C basics, and structs?
- Work on first assignment for the day (Nested Loops and That'sPerfect).
  - All except LinkedLists are due Monday.
- If you finish early, you may watch next videos or leave

My First C Program

Java C

```java
public class JavaToCExample {

    private static final int AR_SIZE = 4;

    public static void main(String[] args) {
        int[] ar = new int[AR_SIZE];
        ar[0] = 4; ar[1] = 9; ar[2] = 12; ar[3] = 15;

        square(ar);
        for (int i = 0; i < ar.length; i++) {
            System.out.println(ar[i]);
        }
    }

    private static void square(int[] ar) {
        for (int i = 0; i < ar.length; i++) {
            ar[i] = (int)Math.pow(ar[i], 2);
        }
    }
}
```

```c
#include <stdio.h>
#include<math.h>
#define AR_SIZE 4
void square(int ar[]);

int main(int argc, char** argv) {
    int ar[AR_SIZE];
    ar[0] = 4; ar[1] = 9; ar[2] = 12; ar[3] = 15;

    square(ar);
    int i;
    for (i = 0; i < AR_SIZE; i++) {
        printf("%d\n", ar[i]);
    }
    return 0;
}

void square(int ar[]) {
    int i;
    for (i = 0; i < AR_SIZE; i++) {
        ar[i] = pow(ar[i], 2);
    }
}
```