Course Introduction

Tim Capes

September 11, 2011

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- Electricity has another: 0 as off, 1 as on.
- In this course we will use several more complicated encodings

▶ How do we represent a number from 0 to 255?

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- Can add 1 to any number below 255 by binary addition.
- So yes, this does work.

Adding in base 2 works like addition in base 10 except we carry whenever we have a 2 instead of a 10.

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- ▶ Remainder of digits are 0 + 0 = 0, answer is 00000100 = 4

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Why 0 to 255?

This is a natural question. The reason is largely historical: It was convenient to group 8 bits into 1 byte.

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Why 0 to 255?

- This is a natural question. The reason is largely historical: It was convenient to group 8 bits into 1 byte.
- So this representation has a convenient size that is natural to work with.
- Next week we will see that pictures have Red, Green and Blue values of 0 to 255 so we will need this encoding.

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- I'm pausing here for questions on Encodings specifically. Feel free to ask any.
- This topic will come up throughout the course.
- I expect some uncertainty; if you are uncertain, I'm confident many others are as well.
- Even "stupid" questions are fine, they generally aren't actually "stupid", just seem that way to someone uncertain about asking.

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Course Information Sheet

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Course Information Sheet

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- This course is 12 weeks, with a well defined schedule.
- Please try and keep up with the readings it will maximize the value of lectures and save you work.

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50 percent will be on the 3 assignments:

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 - Assignment 1 will be an introductory programming assignment (15 percent)

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 - Assignment 1 will be an introductory programming assignment (15 percent)
 - Assignment 2 will be a slightly more advanced programming assignment(15 percent)
 - Assignment 3 will cover some HTML and a digital issues essay (short) (20 percent)

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Marking Scheme Part II

The remaining 50 percent will be on the midterm and the exam:

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Marking Scheme Part II

- The remaining 50 percent will be on the midterm and the exam:
 - A Midterm worth 15 percent on programming.
 - An Exam worth 35 percent covering the entire course.

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Tutorials

Tutorial Assignments are given in the table. If you are uncertain see me briefly after lecture.

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- Tutorial Topics are given in a separate table.
- Note that some of them are not covered in lecture, but may be on the exam.

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University Work Skills

- A university course is much more challenging and time consuming than a high school course.
- Staying on top of the workload will reduce your total work. You will get more value out of lectures and tutorials, and it will take you less total time to learn the material when you do this.

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University Work Skills

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- Staying on top of the workload will reduce your total work. You will get more value out of lectures and tutorials, and it will take you less total time to learn the material when you do this.
- The department expects about 10 hours a week of work per course. This means 7 hours after lecture and tutorial.

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This is the least favorite part of my job.

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So don't copy anyone's work.

This means don't:



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 - Type assignment code, formulas, or other text into a computer with others.

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 - Look at anyone else's assignment work, completed, or partial, before the deadline.
 - Show anyone (other than the instructor or a TA) your assignment work, completed or partial, until after the solutions are posted.

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- This means don't:
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 - Bring your solution, completed or partial, to any group discussion about an assignment
 - Take away any written or electronic material from any group discussion about an assignment

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 Do limit your collaboration with others as suggested on the information handout.

 Required Course Text: Introduction to Computing and Programming in Python, a Multimedia Approach, 2nd Edition. Mark Guzdial and Barbara Ericson.

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- Also required: Earbuds or Headphones. The sound systems will not work in CDF unless you plug in headphones/earbuds.
- If you are using your own laptop instead, please use earbuds in student areas to avoid being disruptive.

My office hours will be held at a location to be posted on the course website Wednesday 5 to 6.

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 - Other Questions...
- There will be general(not specific to this couse) help hours in BA2200 from 4-6pm, Monday to Thursday.

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Course Website

Located at: www.cs.toronto.edu/ capestim/csc104/



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- Will have valuable links to material like lecture notes, slides, coding examples, etc.

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Questions

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- Course info sheet questions first.
- Any other questions or points of discussion from lecture today.

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