CSCA08 TUTORIAL WEEK 12

TUT 0014

TA: Andrew Wang

Email: andrewpy.wang@mail.utoronto.ca

Website: http://andrewwang.ca/a08/

Welcome

Objectives

Unit Testing

CS POSt

This Week

Unit testing

CS POSt enrolment

A sneak peak of future CS courses

Welcome

Objectives

Unit Testing

CS POSt

UNIT TESTING

Unit Test:

- A script that runs test cases automatically
- Black box testing
 - i.e. write test cases without looking at code
- Principles:

Welcome

• Covers all ranges, all boundary cases

Objectives

• For collection data types, follow 0, 1, many

Unit Testing

CS POSt

EXAMPLE

Read the following docstring, and write test cases.

```
def remove_dup_values(d):
    '''(dict of {int: int}) -> int
    Remove all entries of d whose values are not unique
    in d. Return the number of entries that were removed.
    '''
```

Welcome

Objectives

Unit Testing

CS POSt

CS Post

Now I've completed A08, how do I get into the CS POSt?



Welcome

Objectives Unit Testing

CS POSt

CS Post

Completion of

Welcome

- CSCA08, CSCA67, MATA31
- CSCA48, MATA23, MATA37

Objectives

An average grade point value of (CSCA08, CSCA67, MATA31, CSCA48, MATA23, MATA37) >= 3.0 is a guaranteed enrolment

If you're below 3.0, you can still apply!

• Enrolment decisions will be made according to application pool

Specialist/major/minor programs share the same cut-off

Unit Testing

CS POSt

CS specialist and major

Guaranteed admission if:

- Complete 4.0 credits, including all required A-level CSC and MAT
- courses (CSCA08, A48, A67; MATA22, A31, A37); and GPA ≥ 3.0 across required A-level CSC and MAT courses

OR

- Complete 7.5 credits including all the above plus CSCB07, B09, B36, B63 and one of MATB24 or STAB52
- GPA ≥ 3.0 across the above B-level courses only*

(*) B-level CSC courses have CS subject POSt or min CGPA prerequisite

Last year: GPA \geq 2.75 across same courses; for second-year admission, GPA was calculated across ALL courses, including A-level.

CS Specialist Post

The Comprehensive Stream The Software Engineering Stream The Information Systems Stream The Health Informatics Stream The Entrepreneurship Stream

Welcome

Objectives

Unit Testing

CS POSt

BUT WHAT ABOUT CO-OP?

On top of those requirements, you need to have a cGPA of 2.75

You need to complete an application form and submit it with your resume to the co-op office

Both co-op and non-co-op POSt application will open in April

WelcomeObjectivesUnit TestingCS POStFuture Courses



Welcome

Objectives

Unit Testing

CS POSt

CSCA48: Introduction to Computer Science II

- More about algorithm
- Data structures
- Complexity
- Recursion

Problem: how to get the sum of all numbers in a nested list?

```
e.g. [1, [[[[2]]], [3, 4]], [5], 6]]
```

Welcome

Objectives

Unit Testing

CS POSt

CSCB07: Software Design

- Personally, my favorite CS course so far
- Programming in Java, (maybe) Android development
- More about Object Orientated Programming/Design

Unit Testing

CS POSt

Future Courses

Team project

Welcome

I'll show you something

Objectives

CSCB07: Software Design

• Assignment: The Great Vacuum Race



Welcome

Objectives

Unit Testing

CS POSt

CSCB07: Software Design

• Team project: Android App

| er | nulator64-x | 86 Windo | w View | | |
|--------------|---------------------------|------------------|----------|------------------------|--|
| 0 | | | 5554:Nex | kus_5_API_23 | |
| | | | | ³⁵ / 🖥 1:27 | |
| Captures | Searc | h Resu | ılt | | |
| roject (| 🖉 origin | | N | Me destination | |
| | iii de | parture | | | |
| T: Structure | ₹, | 10:00 1hr 40m | → 12:00 | \$123.0 > | |
| | $\mathbf{X}_{\mathbf{D}}$ | 10:00 1hr 40m | → 12:00 | \$123.0 > | |
| | $\mathbf{X}_{\mathbf{D}}$ | 10:00 1hr 40m | → 12:00 | \$123.0 > | |
| l | | | | | |
| l | | | | * | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | \triangleleft | 0 | | |
| | | | 0 | | |

Welcome

Objectives

Unit Testing

CS POSt

CSCB09: Software Tools and Systems Programming

Unit Testing

CS POSt

Future Courses

- Programming in C
- More about low-level system programming
- Processes

Welcome

- Memory operations
- Network programming

Objectives

3rd/4th year courses: more topic specific and in-depth

- CSCC01/D01: Software engineering
- CSCC09: Programming on the web
- CSCC10: User interface
- CSCC11: Data mining and machine learning
- CSCC43: Database technology
- CSCC69: Operating system
- CSCC85: Embedded system
- CSCD18: Computer graphics
- CSCD27: Network security

CS POSt

THANK YOU!

Thanks to all of you for your participation

Congrats on (almost) completing a semester
For most of you, your first semester

Good luck on Assignment #2

Good luck on the final

Good luck on your university life!