CMSC 132: Object-Oriented Programming II

Introduction

Dr. Anwar Mamat
Summer 2016

Course Description

• Introduction to use of computers to solve problems
• Design and implement abstract data types: list, stack, queue, tree, graph
• Design, build, test, and debug software systems. Learn to use relevant tools
• Use object-oriented methods to create effective and efficient problem solutions
• Use and implement application programming interfaces (APIs)
• Programming done in Java

Things You Will Learn

• Object-oriented software development
  • Modern software development techniques
  • Object-oriented design

• Algorithms & data structures
  • Lists, stacks, queues, trees, graphs

• Programming skills
  • Java API, IDE, testing, debugging

Course Is Not Just About Java

• May seem to focus on Java
  • All programming in Java
  • Many interesting Java language features

• Lessons intended to be general
  • Principles should apply to all languages
  • Ways of thinking about design
  • General ideas about software
  • Can translate skills to other languages
Assume You Already Know

- Coding
  - Variables, operators, loops, arrays
- Basic object-oriented programming
  - Classes, methods
- Java
  - Class libraries, exceptions
- Tools
  - Eclipse IDE, debugger

Organization

- Class Web Page
  - Notice that the submit server link is not the same one used in the spring. The link to use is:
    - [https://submit.cs.umd.edu/summer2016](https://submit.cs.umd.edu/summer2016)
- Instructor:
  - Dr. Anwar Mamat
- Class Components
  - Lectures M/W/F
  - Labs Tu/Th

Class Schedule

- The class schedule is available at:
- Please make sure you know the date this class ends and when the final takes place. The final exam date is on the schedule
- Dates for quizzes and midterms (not the final exam) are tentative and may change
- Regarding make-ups for quizzes and midterms
  - Medical emergencies

Projects

- Around 8 projects
  - Evaluate design, coding, testing skills
  - Tries to involve interesting application areas
- Late policy
  - Projects due at 11:59 pm
  - Late submission with 10% penalty if submitted by 11:59pm of next day
  - No project accepted afterwards
  - Plan to complete all projects on time
Projects (cont.)

- Environment
  - Eclipse IDE
    - **http://www.cs.umd.edu/eclipse/**
  - Do not use your cmisc131 workspace (Create a new one)
    - In Eclipse select "File --> Switch Workspace"
  - We are using a new repository (information will be provided later on)
  - Regarding Java version to use

- Automated submission & testing
  - Submit server
  - Maintains record of submissions
  - CVS repository
  - Release testing
    - Can evaluate project using real test cases

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Grading

- Based on
  - Projects, quizzes/lab exercises, midterms, final

- Point distribution (roughly)
  - 40% Projects (8)
  - 12% Quizzes/Lab Exercises
  - 28% Midterms (2)
  - 20% Final Exam

- Available on-line
  - **https://grades.cs.umd.edu**

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Terpconnect Account

- We are going to use the grace cluster (linux.grace.umd.edu) for the CVS repository. For now, the only thing you need to do is to make sure you have a terpconnect account (we will provide information on how to set the CVS repository later on). If you don’t have a terpconnect account, you can request one at: **http://www.oit.umd.edu/new/**
- Your TerpConnect account will be available within 1-3 days, that means you should activate it today. You should see the message **TerpConnect Activated** once your account is ready

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Academic Honesty

- All individual assignments & exams must be done individually (except "open" assignments)
- Do not copy (or allow others to copy) your work in any way
- Submissions will be compared to submissions from current and previous semesters
- Cases of academic dishonesty will be referred to the University’s Office of Judicial Programs
- Visit Student Honor Council website for more detailed explanation of academic dishonesty
**Excused Absences/Academic Accommodations**

- Excused absence does not typically translate into project extensions
- Students requesting reasonable academic accommodations due to a disability must provide a letter from the Office of Disability Support Services. Scan and email the letter to me.
- Please see the syllabus for additional information

**Course Advice**

- Read the syllabus
- Start projects early
  - Make use of release testing if offered
- Ask questions
- Read book
- Attend lectures
- Attend labs
- Attend office hours
- Pay attention to re-grade deadlines

**Miscellaneous**

- Regarding deadline to address grading concerns
  - It will be strictly enforced
  - At the end of the semester, we will not address grading concerns for assignments/material already graded
- Regarding Email/piazza
- Regarding Electronic Devices

**Miscellaneous**

- If you are experiencing any problems that affect your performance in this class, please contact us immediately. Usually students wait until the end of the semester when probably nothing could be done
- If for some reason you are considering dropping this course, see us first before making this decision
- Work hard from the beginning of the semester in order to avoid the following type of messages at the end of the semester:
  - Is there any extra credit so I can boost my grade?
  - I am .1 from an A; can something be done?