CS138: Distributed Systems
Course Information and Syllabus
Spring 2022

Lectures	1 hour 20 min: 10:30–11:50 on Tuesdays and Thursdays
Room	Friedman Hall 102
Lecture Notes	https://cs.brown.edu/courses/cs138/s22/lectures.html
Text	*Distributed Systems: Concept and Design*, by Colouris, Dollimore, Kindberg, Blair, 2011 Systems Papers (attached on website)
Prerequisite	CS 33 or CS32 or CS1310
Instructor	Theophilus A. Benson (tab@cs.brown.edu)
Office	CIT 327 (Also online on Zoom)
Office Hours	Tuesdays 1:30-2:30 and Thursday 1:00-2:00, or by appointment
Head TAs	March Boonyapaluk Yuming Fu

UTAs	Liam Bai Jeremy Kong Junewoo Park Neil Ramaswamy Milanca Wang Arvind Yalavarti
Requirements	4 Programs (50%) 6 Homeworks (10%) Midterm Exam (10%) Final Exam (15%) Post-lecture Quizzes (15%)
Time Requirements	In addition to three hours per week in class, you will spend 10 to 20 hours per week on homeworks and programs.
Goals	We will teach you the theoretical underpinnings of distributed systems and will teach you to write programs that run on multiple, geographically dispersed computers and that are tolerant of many sorts of faults. You will do problem sets based on the lectures that will help you grasp and apply the theoretical material. You will do a sequence of programming projects, working in groups of two that not only apply what's covered in lectures, but give you experience in coding and debugging distributed systems. We have you write the programs in a language that's probably new to you, Go, chosen because it allows you to focus on the distributed aspects of a system without getting bogged down in other details.

All Are Welcome	Our intent is that this course provides a welcoming environment for all students who satisfy the prerequisites. Our TAs have undergone training in diversity and inclusion; all members of the CS community, including faculty and staff, are expected to treat one another in a professional manner. If you feel you have been treated unprofessionally by any of the course staff, please contact Prof. Benson (the instructors), Prof. Cetintemel (the department chair), or Laura Dobler (the department's coordinator for diversity and inclusion initiatives). We take all complaints about unprofessional behavior seriously
Grading	Homeworks, exams, post-lecture quizzes and programs are given numerical grades. The final course grade is the weighted average of the homework, exam, and program grades. The first program is 10% of your course grade; each of the others is 13.33% The midterm exam is 10% of your course grade; the final exam is 15%. Homework is 10% of your course grade. Post-lecture quizzes are worth 15% of your course grade. You are allowed to miss 4 of the post-lecture quizzes without any consequences.
Capstone	This is a capstone course! Please follow the department guidelines for declaring capstones. To capstone this course, you will need to implement extra-features for Tapestry, Raft, and Puddlestore projects. These extra features are due the same time as the course project. Turning them in late will incur late-days (for both members of the project). To sufficiently get capstone credit, you will need to get 70%+ on these extra features. Note: For normal extra-credit, you will need to get the functionality fully working. You can get extra-credit for at most one feature. The extra-credit gives you an additional 5% to the specific project grade .

	Please note that your assignments will be graded by the TAs, most of whom are undergraduates. If you have a question about the grading of an assignment, please bring it up first with the TA who graded it. If your question is not resolved to your satisfaction, then bring it up with Prof. Benson. **Regrades**: Regrades can be requested at most one week after the return of grades. The exceptions are the final project, homework, and final exam – for these you will only get 24 hours. During regrades, you may **get points back or lose points -- regrades may result in grades going up, down, or staying the same**.
Incomplete Policy	We expect everyone to complete the course on time. However, we certainly understand that there may be factors beyond your control, such as health problems and family crises, which prevent you from doing so. If you feel you cannot complete the course on time, please discuss with Prof. Benson the possibility of being given a grade of Incomplete for the course and setting a schedule for completing the course over the summer.
Due Dates	All materials are submitted electronically (via Gradescope for written homework assignments) due at 11:59 pm ET unless otherwise stated.
Late Policy	The late-day policy described here applies to all late days other than those due to illness, accommodations, and religious holidays. Thus, late days because of job interviews, sport events, course load are included in the late-day policy. Everyone is allowed a total of four late days on all course assignments (homework, projects, labs) except post-lecture quizzes and exams (final and midterm) free of charge, but no more than **three late days may be applied** to any one assignment. **Except Puddlestore, you will only get two days.** Beyond that, you are penalized 10% of the assignment's total worth for each day it is late. So, if the assignment is out of 100 points and you get 88 points but are one day late: then it becomes 78 points. For post-lecture quizzes, while there are no late days, you are allowed to miss 4 of the post-lecture quizzes without any consequences.

	For the projects, which are performed in as a group, we will apply the minimum available late days. Thus, if you have 3 late days and your partner has 2 late days, then as a group you have only 2 late days. Please keep this in mind as you use your late days for your individual assignments (e.g., Labs or Homeworks). We will apply late days to assignments in an optimal fashion (with respect to your grade). If you are ill, you may get an extension without using the late days. Please get a note from either health services or the office of student life and contact one of the instructors.
Religious Holidays	If you must miss an assignment deadline because of a religious holiday, you may also get an extension without using late days; please contact one of the instructors. Please contact the instructors within the first two weeks of the course to declare such conflicts and we will plan accordingly.
Accommodations	If you feel you have physical, psychological, or learning disabilities that could affect your performance in the course, we urge you to contact SEAS (https://www.brown.edu/campuslife/support/accessibility-services/). We will do whatever we can to support accommodations recommended by SEAS. Please contact the instructors within the first two weeks of the course to declare such accommodations so that we will plan accordingly
Mental Health	Being a student can be very stressful. If you feel you are under too much pressure or there are psychological issues that are keeping you from performing well at Brown, we encourage you to contact Brown's Counseling and Psychological Services (CAPS: https://www.brown.edu/campus-life/support/counseling-andpsychological-services/). They provide confidential counseling. In addition, the deans of student life as well as the deans of the college can provide notes supporting extensions on assignments for health reasons.

Course Missive	Changing Partners: You will be allowed to change partners at most once during the course – before Tapestry.