PRINCIPLES OF INFORMATION AND DATA MANAGEMENT

01:198:336

Instructor: Dr. Tomasz Imielinski   imielins@cs.rutgers.edu

Contact Information: Tomasz Imielinski (imielins@cs.rutgers.edu),

EMAIL ME ALWAYS WITH 336 in subject line please (plus anything else which you want to put on) to help me answer you emails faster, same day for sure.

Office Hours: Tuesday – 2PM-3PM

PLACE:

Tomasz Imielinski's Personal Meeting Room

Join Zoom Meeting
https://rutgers.zoom.us/j/2793647945?pwd=ajQxSVM5bm02K0pjb3dBUmJ3dUxvdz09

I would like to encourage you coming to office hours in case you are generally lost (hopefully not!) or have general questions about the class. Specific questions send first to the Help Line. Even questions like "why this query does not run?".

Class LMS: https://sakai.rutgers.edu/portal/site/98cd4085-0d6d-4fac-bd3c-60a244980636

 HELP LINE: databases336@googlegroups.com

This is NOT a web site. It is email address.

(this is where you can send all questions related to material and it goes only to teaching staff: me, Tas and some graders – we can answer very promptly and only to you.

VIDEO SUMMARY OF 336

https://www.youtube.com/watch?v=xgnuQbCmQPw&feature=youtu.be

Learning Goals:

Describing and querying various forms of information such as structured data in

relational databases, unstructured text (IR), semi-structured data (XML, JSON, web). Conceptual modeling and schema design. Basics of database management system services (transactions, reliability, security, optimization). The course focuses on hands on user's perspective, rather than how one implements DBMS. You will learn now to use MySQL as well as different NoSQL platforms.

Class Online Meeting Time

Tuesday12:00 PM - 1:20 PM on ZOOM (invite below) every week same address

https://rutgers.zoom.us/j/96803217805

Asynchronous mode combined with weekly guide mini-lecture and quiz.

Mini-lecture on zoom (At least 20-30 minutes, possibly longer) summary of the narrated PPT for the week, plus Socrative quiz on the prior material.

ALL ASSIGNMENTS DUE on **Mondays 11PM**

Credit distribution/evaluation.

a) Assignments – 40-50%
b) Class Quizzes – only extra credit for the first two – other just practice
c) Database Project - 30-50%
d) Final Exam Quiz On Sakai - 10 %

Syllabus

I will post in Syllabus resources the narrated power point slides for each week of the class. In addition there will be 20-30 mini-lecture overviewing this material on Tuesdays 12-1:20PM, in addition to the multiple choice quiz.

Detailed Schedule of Assignments and Late Submission Policy

Late Submission Policy: 2-day grace period: 25% Late Penalty

Detailed Schedule of Assignments

*Credit is a fraction of total class credit. Total Credit of all Assignments **42%***

1. Relational Model of Data/SQL

Assignments consists usually of several questions (5-10) submitted and graded though sakai.

SUBJECT	OPEN	DUE	CREDIT
Simple SQL	09-07	09-14	4%
Complex Queries	09-21	09-28	10%
E/R diagrams	09-28	10-05	4%
Relational Database Design	10-19	10-26	8%

2. Transaction Processing and Concurrency Control

Serializability	11-02	11-09	4%
Locking	11-16	11-23	8%

Thanksgiving Break – week of November 26

3. NoSQL and text processing

NoSQL+Text	12-07	12-14	4%

Quizzes

There will be weekly *multiple choice* quiz taken online in class either using Zoom polling or through Socrative tool. These will be simple questions testing that you read and understood the previous lectures material.

Quizzes will take place on each ***Tuesdays between 12-1PM*** (class time) and be worth 2% of the grade - **total 24%**

Database Programming Project (20%)

TBD on Sakai. Typically it is a project involving example database stored on the cloud (AWS) and writing MySQL queries, triggers and constraints. We will use REST API and simple interface to interact with the database. Since it is a programming project – the programs have to be correct and RUN to get full credit. For non-running programs only 50% of credit is possible.

Database Interview (10%) – as Final Exam (and no midterm)

It is a quiz style, multiple choice exam which takes an hour and consists of questions typically asked at job interviews for database position.

Academic Integrity

Students are expected to maintain the highest level of academic integrity. You should be familiar with the university policy on academic integrity. Violations will be reported and enforced according to this policy. Use of external website resources such as Chegg.com or others to obtain solutions to homework assignments, quizzes, or exams is cheating and a violation of the University Academic Integrity policy. Cheating in the course may result in grade penalties, disciplinary sanctions or educational sanctions. Posting homework assignments, or exams, to external sites without the instructor's permission may be a violation of copyright and may constitute the facilitation of dishonesty, which may result in the same penalties as plain cheating.

Rutgers Honor Pledge

The Rutgers honor pledge will be included on all (major) assessments for you to sign: *On my honor, I have neither received nor given any unauthorized assistance on this examination (assignment).*

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Student-Wellness Services: All of these services are being provided remotely during Fall 2020.

Counseling, ADAP & Psychiatric Services (CAPS)
(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901/ http://health.rutgers.edu/medical-counseling-services/counseling/
CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professionals within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community, and consultation and collaboration with campus partners.
Crisis Intervention : http://health.rutgers.edu/medical-counseling-services/counseling/crisis-intervention/

Report a Concern: http://health.rutgers.edu/do-something-to-help/

Violence Prevention & Victim Assistance (VPVA)
(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 / www.vpva.rutgers.edu/
The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

Disability Services
 (848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / https://ods.rutgers.edu/
Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: https://ods.rutgers.edu/students/documentation-guidelines. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: https://ods.rutgers.edu/students/registration-form.