TCSS 562: SOFTWARE ENGINEERING FOR CLOUD COMPUTING

Group Presentations III

Wes J. Lloyd
School of Engineering and Technology
University of Washington – Tacoma

MW 5:50-7:50 PM

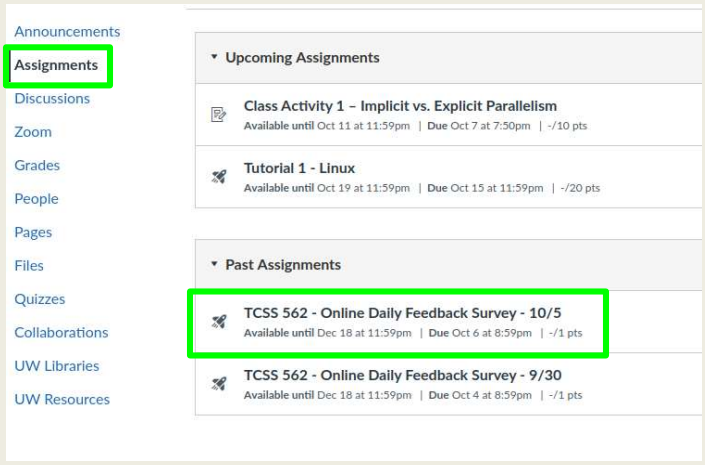
OBJECTIVES – 12/7

- **Questions from 12/2**
- Presentation Questions
- Term Project Paper, Term Project Presentation, Tutorial 9
- Group 9 - **Paper:** ***Serverless Containers-Rising Viable Approach to Scientific Workflows***
  Siddharth Sheth, Patrick Moy, Srivatsav Gopalakrishnan
- **2nd hour:**
- Group 12 – **Paper:** ***Faasm: Lightweight Isolation for Efficient Stateful Serverless Computing***
  Jordan Overbo, Zoe Sadeghi
- Group 6 – **Paper:** ***A FaaS File System for Serverless Computing***
  Jingyan Sun, Lu Han, Zeng Fu
- Office Hours / Tutorial questions / Team planning

December 7, 2020	TCSS562:Software Engineering for Cloud Computing [Fall 2020] School of Engineering and Technology, University of Washington - Tacoma	L19.2

ONLINE DAILY FEEDBACK SURVEY

- Daily Feedback Quiz in Canvas – Take After Each Class
- Extra Credit for completing



TCSS 562 - Online Daily Feedback Survey - 10/5

Started: Oct 7 at 1:13am

Quiz Instructions

Question 1 0.5 pts

On a scale of 1 to 10, please classify your perspective on material covered in today's class:

1	2	3	4	5	6	7	8	9	10
Mostly Review To Me				Equal New and Review					Mostly New to Me

Question 2 0.5 pts

Please rate the pace of today's class:

1	2	3	4	5	6	7	8	9	10
Slow				Just Right					Fast

MATERIAL / PACE

- Please classify your perspective on material covered in today's class (24 respondents):
- 1-mostly review, 5-equal new/review, 10-mostly new
- **Average – 5.58 (↓ - *previous 6.00*)**

- Please rate the pace of today's class:
- 1-slow, 5-just right, 10-fast
- **Average – 5.29 (↓ - *previous 5.59*)**

FEEDBACK FROM 12/2

- ***We have questions on IAM related permissions. will connect at the end of the lecture***

TUTORIAL SUMMARY

- Tutorial 7: Sunday Dec 6th @ 11:59p
- Tutorial 8: ***Extra Credit*** –Dec 18th @ 11:59p
- Tutorial 9: ***Extra Credit*** - Dec 18th @ 11:59p
- Tutorial 10 – No Credit – Posted 11/25
- Tutorial 11 – No Credit – To be posted

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GROUP PRESENTATION QUESTIONS

- Assignment created as quiz on Canvas
- Only **ONE MEMBER** of each team needs to submit the quiz
- Quiz collects questions for group presentations in one place
- Best to submit all questions at once on/after Wed Dec 11
- Please provide 2 questions for each presentation not occurring on your team's presentation day
- Monday Nov 30 – Quiz for Groups 2, 3, 4, 5, 6, 9, 12
- Wednesday Dec 2 – Quiz for Groups 1, 2, 4, 6, 7, 8, 9, 12
- Monday Dec 7 – Quiz for Groups 1, 2, 3, 4, 5, 7, 8
- Wednesday Dec 9 – Quiz for Groups 1, 3, 5, 6, 7, 8, 9, 12

GROUP PRESENTATIONS – WEEK 11

Monday Dec 7

Slot #1 - **Serverless Containers-Rising Viable Approach to Scientific Workflows**
- *Group 9: Siddharth Sheth, Patrick Moy, Srivatsav Gopalakrishnan*

Slot #2 - **<NEW> Faasm: Lightweight Isolation for Efficient Stateful Serverless Computing**
- *Group 12: Jordan Overbo, Zoe Sadeghi*

Slot #3 - **A FaaS File System for Serverless Computing**
- *Group 6: Jingyan Sun, Lu Han, Zeng Fu*

Wednesday Dec 9

Slot #1 - **BATCH: Machine Learning Inference Serving on Serverless Platforms with Adaptive Batching**
- *Group 4: David Melanson, Samuel David Adams , Richard Brun*

<MOVED> Slot #2 - **Serverless in the Wild: Characterizing and Optimizing the Serverless Workload at a Large Cloud Provider**
Group 2: Enbei Liu, Jingru Zhao

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WE WILL RETURN AT ~6:50PM

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QUESTIONS

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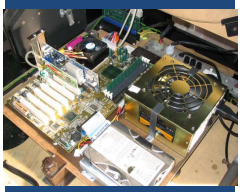
TCSS 562

OFFICE HOURS

PLEASE SAY HELLO



OFFICE HOURS

HAVE STEPPED OUT

WILL RETURN SHORTLY

AREAS OF THE CLOUD

- **Area:** Serverless Computing
  - Function-as-a-Service
  - Container-as-a-Service
- Infrastructure-as-a-Service Cloud
  - Virtual Machines
  - Containers & container clusters (Kubernetes)
- **Perspective**: cloud provider vs. cloud consumer
- **Applications**: tsunami modeling, bioinformatics, environmental modeling
- **Problem:** driven by the area & perspective
  - Common problems: what is the right abstraction? → observability
  - resource contention, resource heterogeneity, provisioning variation, performance variability (delta between min/max performance)