

Federal University of Acre
Computer Science Postgraduate Program

Distributed Software Development



Course Outline

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Agenda

- Personal presentation
- Context/Motivation
- Program
- Dynamics
- Grading
- What is an academic master's degree?

Personal presentation

Personal presentation

- Who am I?
 - Assistant Professor
 - <https://daricelio.github.io/>
- Who are you?
 - Name
 - Graduation
 - Job
 - What is your definition for distributed software development?
 - What you expect for this course?

Context/Motivation

Distributed Software Development - DSD

- Development team geographically dispersed aiming to produce quality software.



https://www.comakeit.com/blog/wp-content/uploads/2018/02/Agile-distributed-development-is-a-great-fit-for-software-driven-businesses_blog.jpg

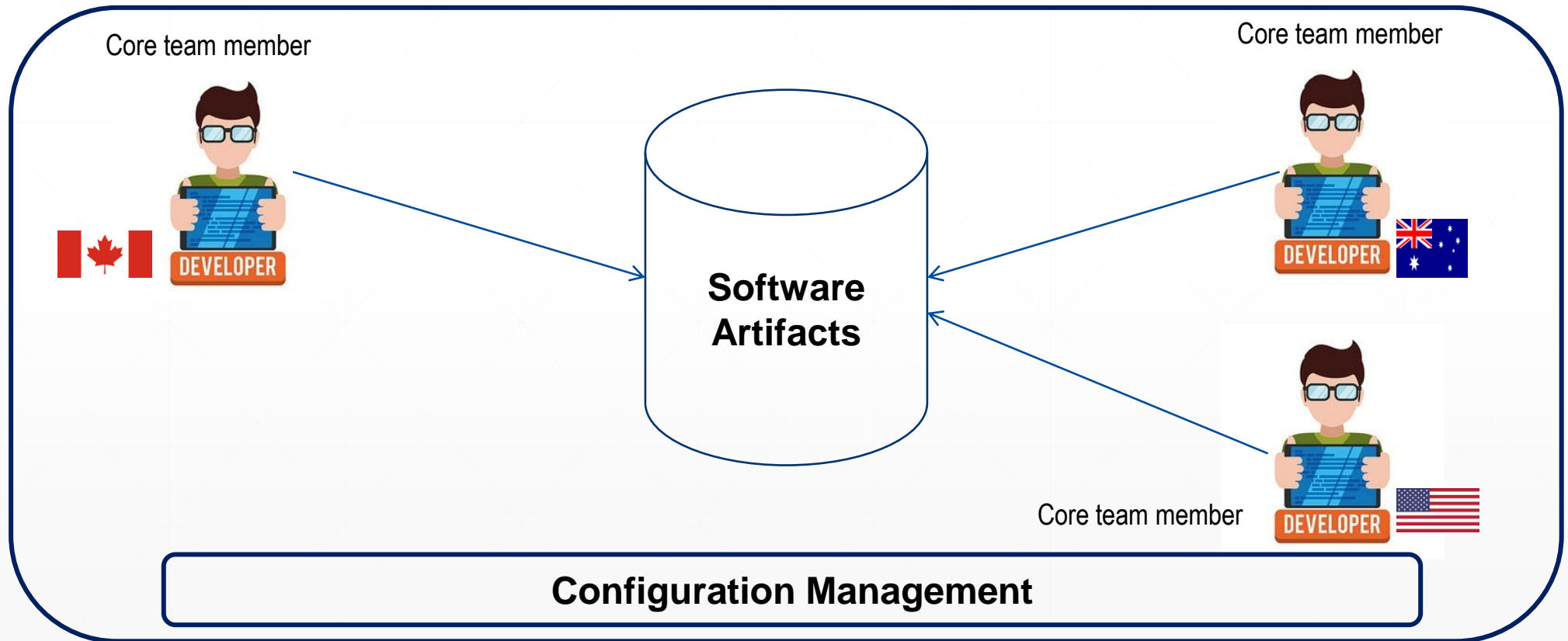
Distributed Software Development - DSD

- “OSS development projects are almost always collaborative and distributed. **Difficulties** imposed by distance, these projects have managed to produce large, complex, and successful systems”.

(Gutwin et al., 2004)

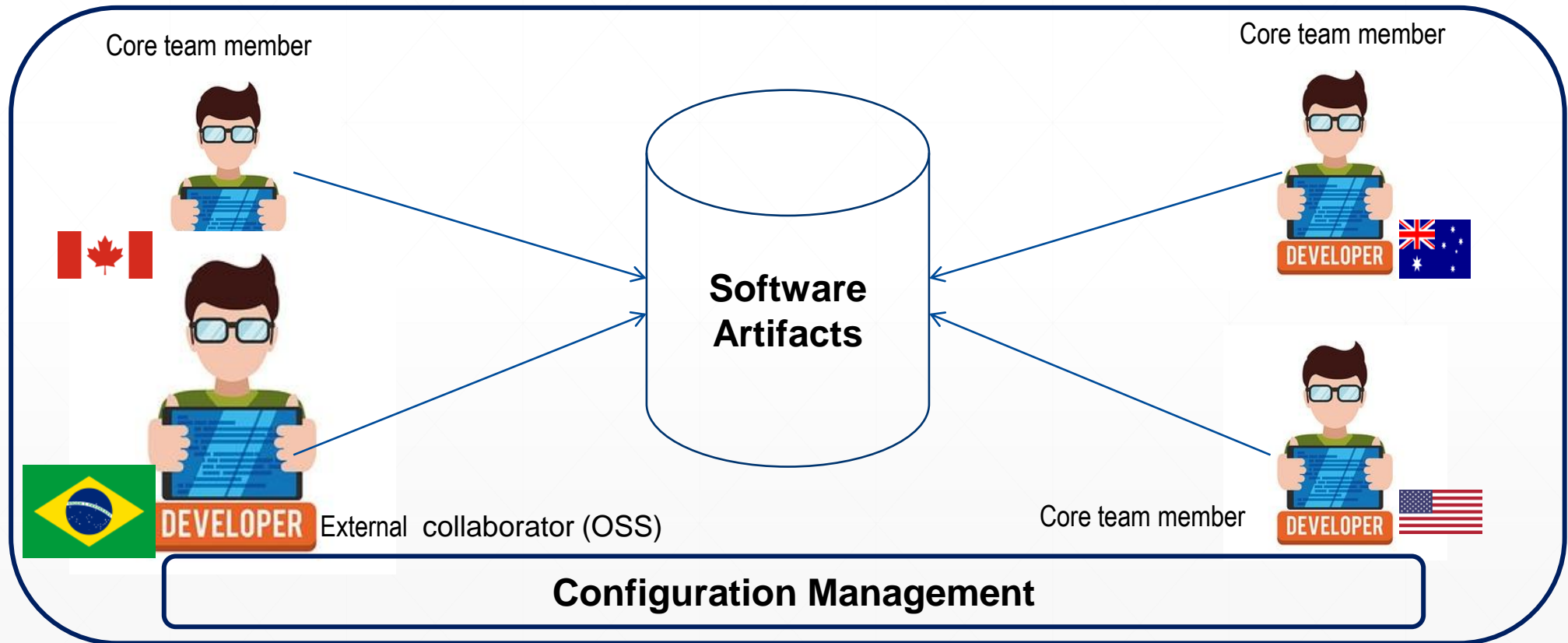
Distributed Software Development - DSD

Typical Scenario



Distributed Software Development - DSD

Typical Scenario



Distributed Software Development

- Challenges
 - Communication
 - Cultural differences
 - Timezone
 - Assigning Tasks
 - Collaboration



A word cloud on a yellow background featuring various terms related to distributed software development. The words are arranged in a roughly circular pattern, with 'Integration' being the largest and most central. Other prominent words include 'Collaborative', 'Model', 'Management', 'Merge', 'Manager', 'tasks', 'Projects', 'Requests', 'control', 'Version', 'Collaboration', 'Newcomers', 'Pull', 'Lifetime', 'Assignment', 'OSS', 'Configuration', and 'Continuous'.

Continuous
Configuration OSS
Assignment
Lifetime
Pull Collaborative Model
Integration
Merge Management
Manager tasks
Newcomers Projects
Collaboration Requests
Version control

Course Program

Program

- Discipline syllabus

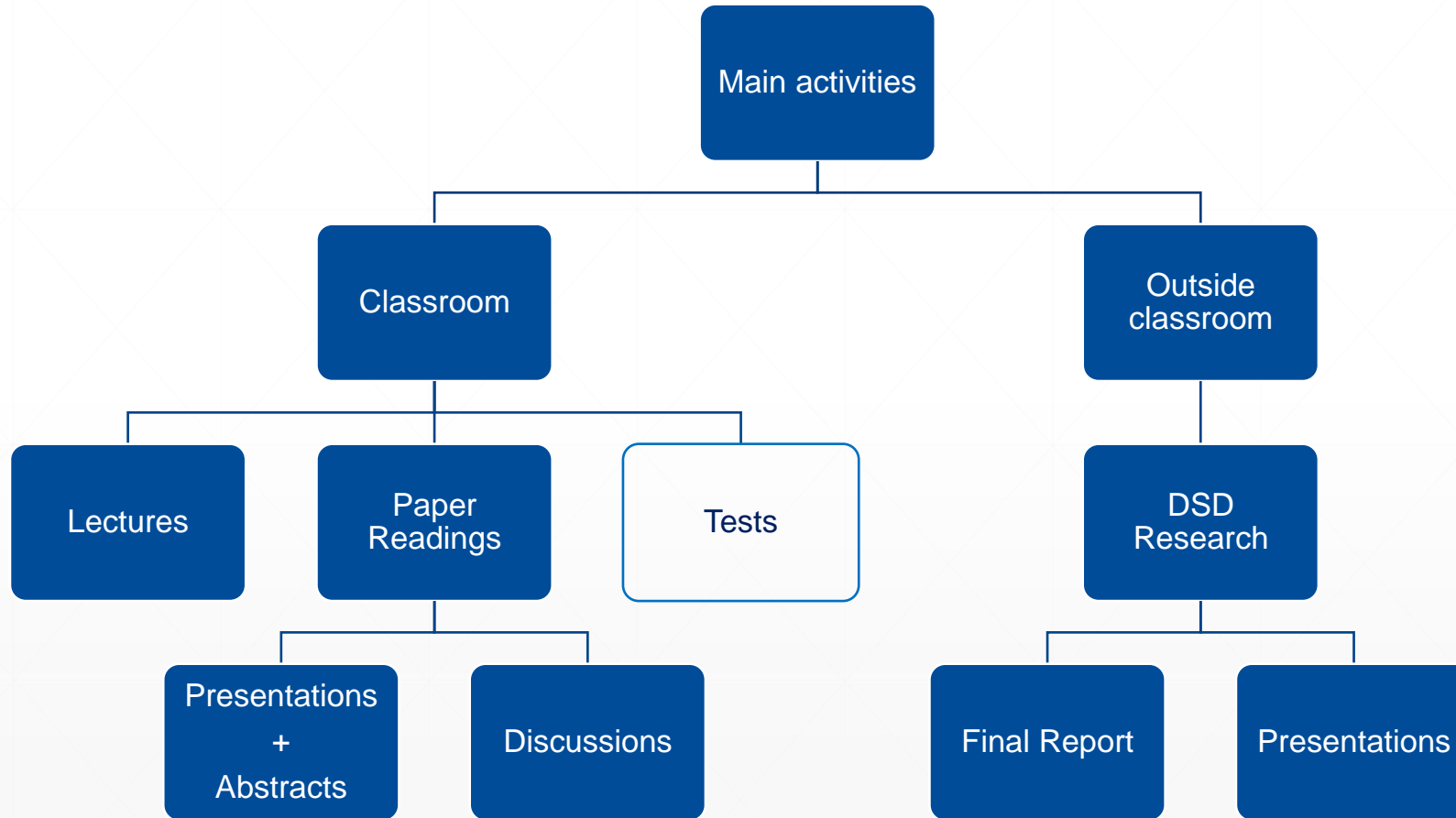
- Context; Historical Perspectives; Distributed Software Development Fundamentals; Distributed Development Paradigms; CASE tools; Current Topics in Distributed Software Development.

- Basic References

- CHACON, SCOTT; STRAUB, BEN. Pro Git (2nd ed.). Apress, Berkely, CA, USA. 2014.
- HIGHTSMITH III, J.A; ORR, K. Adaptive software development: a collaborative approach to managing complex systems. NY: Dorset House Publishing, 2014.
- PRESSMAN, R. S; MAXIM, B. R. Software Engineering: A Practitioner's Approach. 8. ed. Mc Graw Hill Education, 2016.
- SOMMERVILLE, Software Engineering. 10. ed. Pearson, 2015.

Course Dynamics

Dynamics



Paper Readings

- All students should read all articles
 - Each student will be responsible for presenting seminars and/or producing a abstract from articles
 - The order of presentation will be defined by lottery
 - Seminar lasting 30 minutes
 - Using slides

Discussions

- In addition, the remaining students should interact according to schedule

Presentation	Questions	Weak points	Strong points
2	3	4	5
3	4	5	6
4	5	6	7
5	6	7	2
6	7	2	3
7	2	3	4

Schedule example

DSD Research

- Goal:
 - Practical in DSD perspective + Literature revision
 - Mine/Visualize DSD repositories
 - Study some advanced DSD technique
- Try to align the course project with your thesis theme
- Presentations + Final Report

Grading

Grading

- $\text{Score} = (2 \times \text{Pp}) + (1 \times \text{D}) + (1 \times \text{T}) + (2 \times \text{Rw}) / 6$
 - Pp – Paper presentations
 - D – Discussions
 - T – Tests
 - Rw – Research Work
- Approved
 - Presence $\geq 75\%$ AND Score $\geq \text{C (5,0)}$

**What is an academic
master's degree?**

Questions?

