sections details

presentation

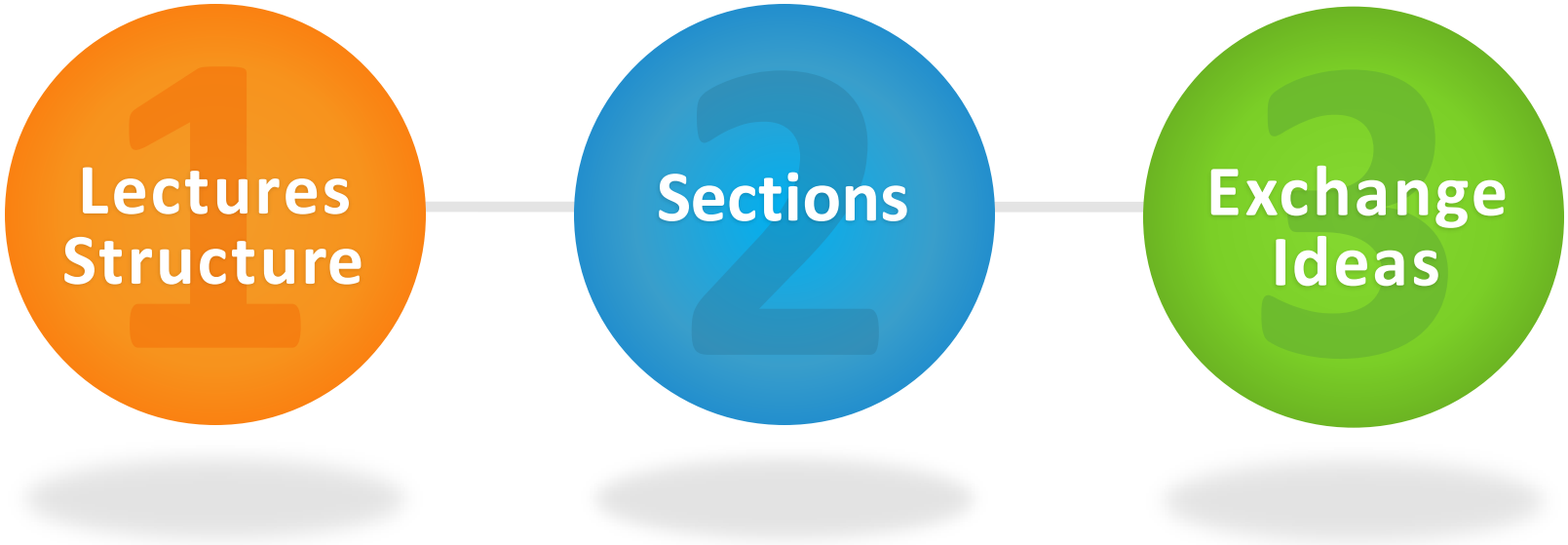
DAD – Distributed Applications Development

Cristian Toma

D.I.C.E/D.E.I.C – Department of Economic Informatics & Cybernetics
www.dice.ase.ro
cristian.toma@ie.ase.ro

Cristian Toma – Business Card

Agenda for DAD



DAD Administrative issues, Mission, Target Group Profile

DAD Lectures Structure

1.1 DAD Lectures Structure

Main issues:

Didactic Activities: Lectures 50% + Lab / Seminar 50%
14 meetings **14 meetings**

Evaluation: PC Exam – 70% / Seminars tests & assignments – 30%

E-Framework: VMs – VM-Ware Virtual Machines with:

- Linux Ubuntu 16 LTS + JDK 8/9/11 + Eclipse + Apache Tomcat + Spring + GCC

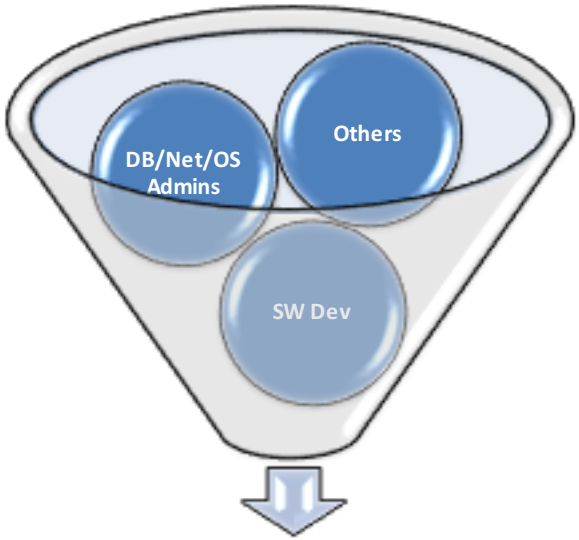
E-Learning Platform: SAKAI – http://ism.ase.ro - http://acs.ase.ro/dad

Prerequisites: Fundamentals of Java SE + node.js + C/C++ with Networking + Linux/Windows OS | Optional –Python

Mission: Technological transfer from university to the students of practical and theoretical issues related with distributed applications development.

1.2 Target Group Profile

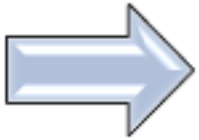
DAD – Distributed Applications Development

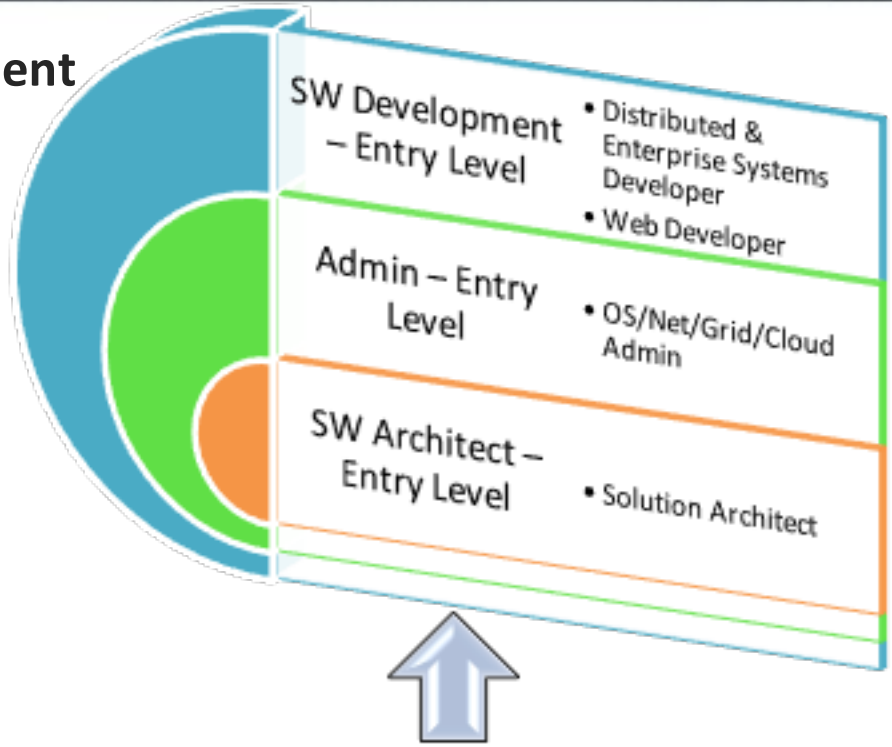


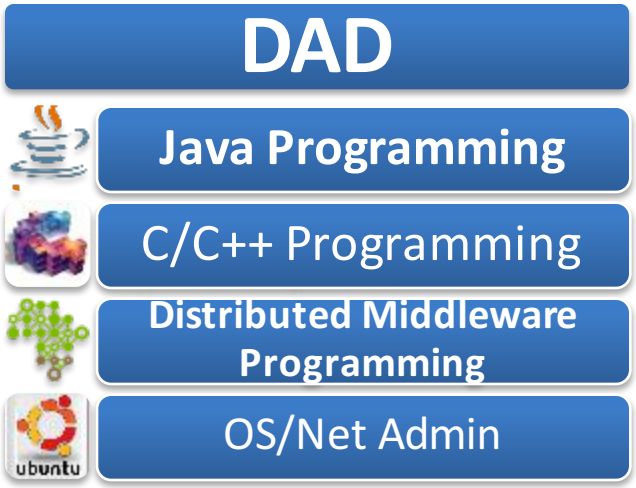
DAD needs students with

C/C++, C#, Java, Networking, OS

Knowledge of Fundamentals







Sections – OOP, Networking, Web Dev, Core Middleware Dev, Distributed Solutions Dev

DAD Sections & References

It’s not just about the programming, but providing smart solutions

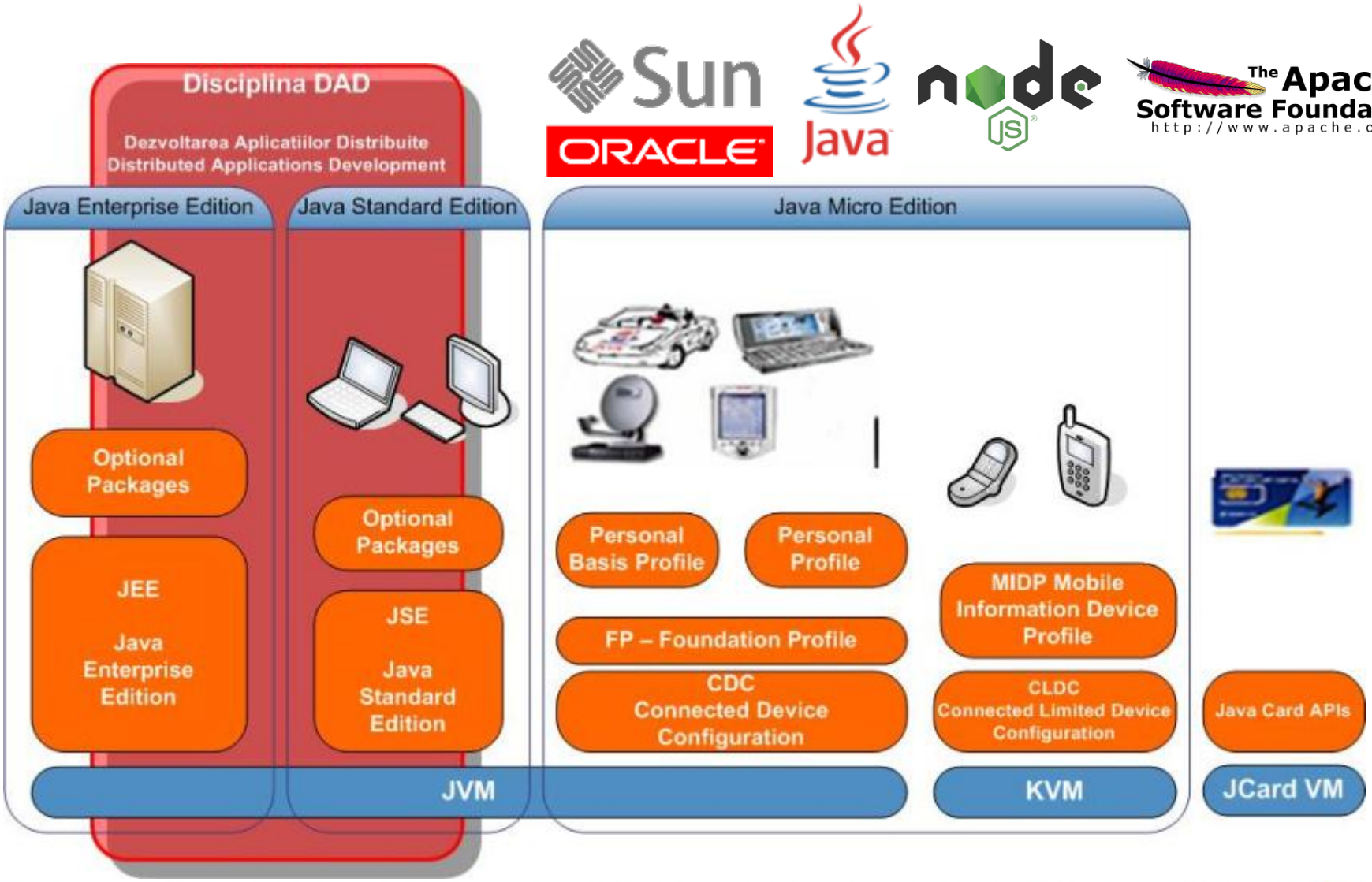
DAD Sections & References

What about the DAD as it is @ Harvard/MIT?

Could you provide a solution for finding out the biggest mark in the class?

Do we have unicast, multicast, broadcast messages or client-server, P2P / hybrid paradigms?...GREAT...Please upload the solution in Java / C# / C/C++ / Python / Ruby till next week 23:50 in e-learning platform – SAKAI...I'm NOT kidding...

Java SE: 30% + Java EE: 30% + node.js: 20% + DevOps/Cloud/OS: 20%



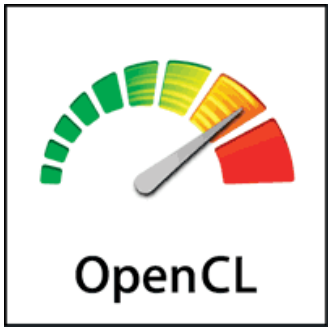
Recommended Languages, OS & Technologies

OS & Virtualization

Programming Languages

Interpreted Languages

HPC – High Performance Computing / Parallel Computing Frameworks & Languages – C/C++ "flavors" – OTHER Lectures

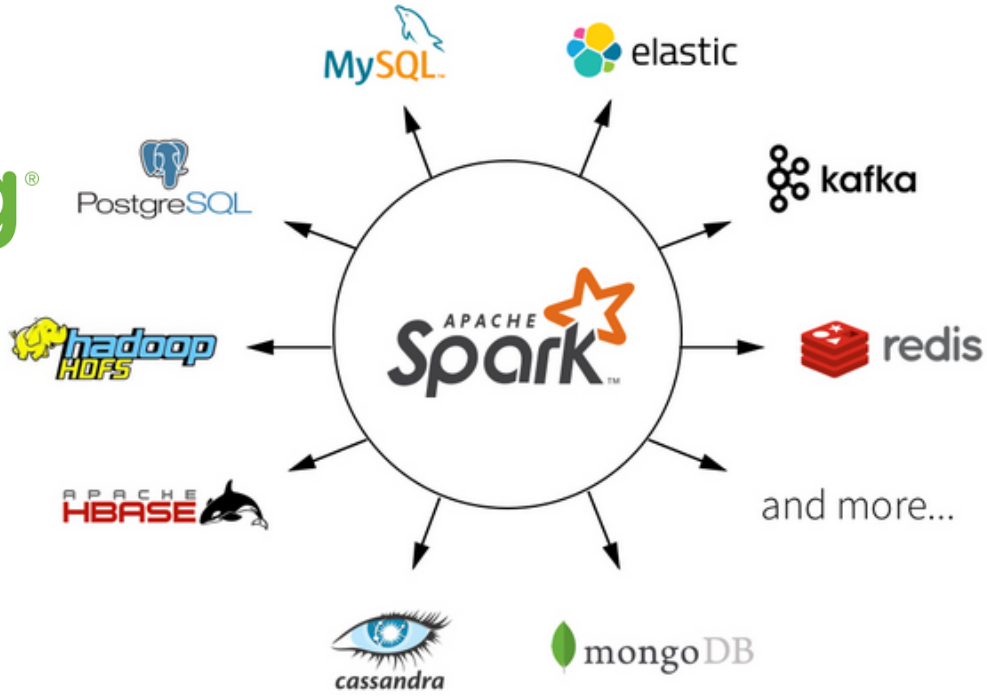


Open MPI:
Open Source
HPC

Recommended Languages & Technologies for HTC

HTC – High Throughput Computing Frameworks based on C/C++/Java

Java Map-Reduce and Distributed Framework | Data Processing Micro-Services & Actors



Recommended Platforms for the Cloud

IaaS/PaaS/CaaS/FaaS Providers

Public Cloud Services Comparison (March 18th,2019)

Category	Service	amazon web services	Azure	Google Cloud Platform	IBM Cloud	ORACLE	Alibaba Cloud
Compute	**Shared Web hosting**		Azure shared App Services		Web hosting services		Web Hosting Simple Application Server
Compute	**Virtual Server**	Amazon EC2	Azure Virtual Machine	Compute Engine	Virtual Server Infrastructure (VSi)	Compute	Alibaba ECS
Compute	**Bare Metal Server**	Amazon EC2 Bare Metal Instance (Preview)	Azure Bare Metal Servers (Large Instance Only for SAP Hana)		Bare Metal Servers	Bare Metal Servers	ECS Bare Metal Instance
Compute	**Virtual Dedicated Host**	Amazon EC2 Dedicated Hosts		Sole Tenant Node (Beta)	Dedicated Virtual Servers Infrastructure (VSi)	Dedicated Compute Classic	Dedicated Host
Compute	**Container Registration Service**	Amazon EC2 Container Registry	Azure Container Registry	Container Registry	IBM Cloud Container Registry	Oracle Cloud Infrastructure Registry	Container Registry
Compute	**Container Management Service**	Amazon EC2 Container Service Amazon Elastic Container	Azure Kubernetes Service (AKS) Azure Container	Kubernetes Engine	IBM Cloud Kubernetes Service	Container Engine for Kubernetes (OKE)	Container Service Container Service for

DAD Issues Summary
for easy sharing

Section Conclusions

DAD – Distributed Applications Development

Technological Transfer from UNI2Student

Main Technologies

- **IPC Linux + Multi-threading**
- **Java Standard Edition**
- **Java/Jakarta Enterprise Edition**
- **Core Distributed Middleware**
  - **RMI**
  - **CORBA**
  - **SOA – Web Services**
  - **JMS, EJB**
- **Distributed Systems for Parallel & Distributed Computing – Case Studies:**
  - **Apache Hadoop**
  - **Condor**

Share knowledge, Empowering Minds

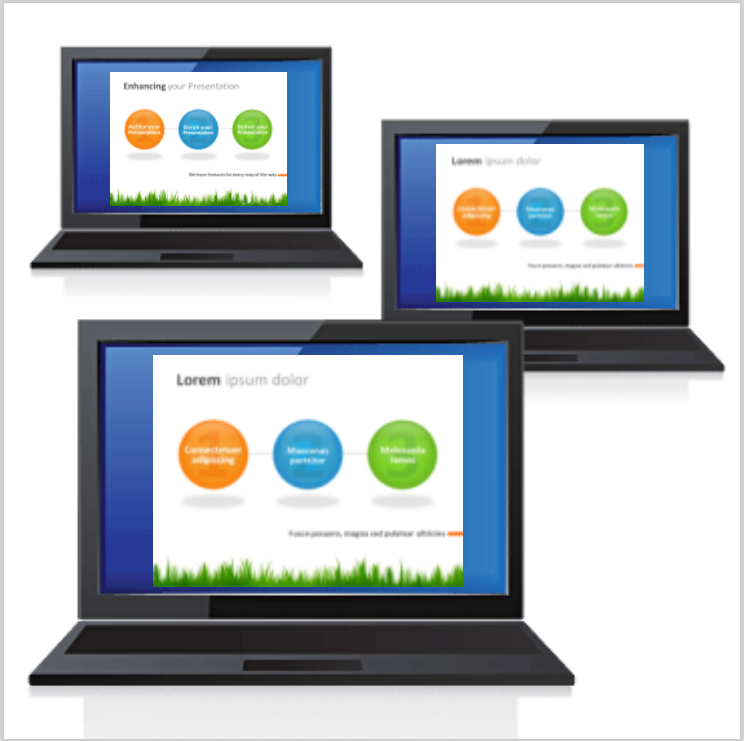
Communicate & Exchange Ideas

SHARE IT

» Show and tell our **KNOWLEDGE**

» Share and realize **IT&C Technological Transfer**

» CREATE together **Distributed Application Development Entry-Level Support - AWERNESS**!



Questions & Answers!

But wait…

There's More!

1. DAD - Is what you expected?
2. How many hours per week are you going to invest in order to achieve DAD goals?
3. How many of you are working in IT field – SW Dev., Admin., Designers?
4. What bachelor programs are you graduated from?
5. How many students get the payment scholarship from the companies vs. how many are/aren't paying the studies?
6. In what disciplines did we collaborate together?

Thanks!