

Week	Subject / Topic	Literature	Exercises
05₁	Introduction to the course What are we going to learn? Binary & Hex (Octal)		
06₂	Computer Architecture CPU, Memory, Virtualisation etc. Operating System (OS) GIT	https://learn.saylor.org/course/cs301 http://www.encyclopedia.com/science-and-technology/chemistry/compounds-and-elements/operating-systems-software http://gama.vtu.lt/biblioteka/Operating_systems/Operating_systems.pdf	Naming all components in a computer and define their roles. Play around with your own OS through java .
07₃	Cloud Computing Basics SaaS (Software as a service) PaaS (Platform as a service) IaaS (Infrastructure as a Service) What are we going to build (draw it)? Components of a Web-App.	Appreda explanation . IBM's definition . AWS definition . Web-App by Oracle .	Build and deploy your first Web-App in intellij . Install and setup Maven . Download Apache Tomcat (version 8) here . We will need it, in order to install and configure it.
08₄	Amazon Web Services (AWS) IAM roles in AWS	What is AWS . IAM readings .	Create an free account here .

09₅	PaaS & SaaS N-tier-architecture	AWS documentation on PaaS .	Mandatory assignment .
10₆	PaaS & SaaS	Reading on Maven .	Download and configure Maven for windows or OSX (otherwise install Homebrew and then maven). Build and deploy (locally) an web-application. Link to source code .
11₇	PaaS & SaaS	Reading on AWS beanstalk . How to get started .	Build and deploy (production) your web-app to AWS Beanstalk.
12₈	IaaS	IBM reading .	How would IaaS influence our web-app?
13₉	Security	SQL-injection Cross-Site-Request-forgery One-Way-Hash-Passwords & Encryption Session hijacking Certificates (HTTP vs HTTPS)	How would we avoid those threats in our web-app? Try to implement at least one. Create a certificate .
14₁₀	BUFFER for now. Could be used as recap (web-app).		
15₁₁	Easter		

16 ₁ 2	Database Relational model Vs. Document oriented model	Relational. Document.	Try this. Install Mysql Workbench tutorial . Free online database hosting here , use it to your 1 year semester project. Refactor your web-app to use a DB instead .
17 ₁ 3	Database part 2 Concurrency	Relational model. MongoDB.	
18 ₁ 4	Finishing the mandatory assignment.		
19 ₁ 5	RECAP	All the above curriculum.	Deadline for the mandatory Exercise!
20 ₁ 6	Exam Project		
21 ₁ 7	Exam Project		
22 ₁ 8	31st of May 2017 EXAM HANDIN		

