

MODULE		PRJ2	Project 2											
SEMESTER	2	CREDITS (ECTS)	10	VALID AS OF	01-02-2023									
LECTURES / WEEK	1	PRACTICAL HOURS / WEEK	6	TOTAL EFFORT	280 hours									
AUTHORS	G. Monsieur													
INTRODUCTION AND MOTIVATION														
<p>During this project, students develop a complex information system for a fictional company. The system is developed from scratch and students come into contact with all aspects of software engineering. The project starts with the analysis and documentation of core business processes in the company. Subsequently, students need to gather and specify software requirements, under the guidance of a project coach. After the analysis phase, students will design and implement an information system using common software engineering techniques.</p> <p>During the whole project, the focus is on delivery of high quality and consistent artefacts that are in line with each other. Besides the integration of technical skills and knowledge, the process of working together in bigger groups (up to 7 students) in an efficiently and effective manner is exercised.</p> <p>During this project, gained knowledge and skills with respect to database design and implementation, business and software modelling, graphical user interface design, programming, testing and communication are applied.</p>														
LEARNING GOALS: THE STUDENT IS ABLE TO ...					BLOOM LEVEL									
LG 1	Analyse the functional requirements of a business case and model them in a consistent set of diagrams (analyse)					Create								
LG 2	Make and defend design decisions and explain the layered architecture of the information system developed (design)					Create								
LG 3	Build tests based on the functional requirements to manage software quality (implement)					Create								
LG 4	Build a multitier application realising the design (implement)					Create								
LG 5	Use and evaluate agile project management techniques in a project with changing requirements (manage)					Evaluate								
CONTRIBUTION TO FINAL COMPETENCE PROFILE (SEE OER)														
Learning Goal	Architectural Layers (enter "X")					Activities (enter levels "1" .. "3", once per LG)					Professional Skills (enter "X")			
	User Interface	Business Processes	Infrastructure	Software	Hardware Interfacing	Manage	Analyse	Advice	Design	Realise	future-oriented organization	Investigative problem solving	Personal leadership	Targeted interaction
LG 1	X						1					1		
		X					2					1		
				X			2					1		
LG 2	X								1			1		
		X							2			1		
				X					2			1		
LG 3				X						2		1		
LG 4				X						2		1		
LG 5				X		2					1	1		1

MODULE ASSESSMENT								
Learning Goal	Type of Assessment (enter "X", at least one per LG)					Grade for (enter "X", one per LG)		Weight (in %) (adds up to 100%)
	Written Exam	Oral Exam	Performance Assessment	Presentation incl Defense	Report	Individual	Group	
PRJ21 Analysis & Management								
LG 1				X		X		70%
LG 5				X		X		30%
PRJ22 Design & Implementation								
LG 2				X		X		30%
LG 3				X		X		20%
LG 4				X		X		50%
TEACHING MATERIAL								
Slides and further material can be found on Canvas.								
PRIOR KNOWLEDGE								
<p>Knowledge and skills from the following courses: Communication 1 (COM), Databases (DBS), Project 1 (PRJ1), Programming concepts 1 (PRC1) and Business in IT (BIIT).</p> <p>During the project students also need to integrate and apply knowledge and skills from the following parallel modules: Development Processes (DVPR), Analysis & Design (AADE) and Programming Concepts 2 (PRC2).</p>								
ADDITIONAL INFORMATION (ON GRADING, ASSESSMENTS, RETAKES, PRACTICAL PARTS, ..)								
<p>The following grading structure is used:</p> <ul style="list-style-type: none"> PRJ21 and PRJ22: Individual assessments 80% (see LGs above). PRJ23 / COM: Github documentation, individual presentation and reflection on LGs - 20%. <p>The final grade is calculated as follows:</p> <ul style="list-style-type: none"> Final grade PRJ2 = PRJ21 * 0.3 + PRJ22 * 0.5 + COM * 0.2 Partial credits can be earned for PRJ21 (3 credits when PRJ21 >= 5.5), PRJ22 (5 credits when PRJ22 >= 5.5) and PRJ23 (2 credits when COM >= 5.5). For being rewarded the full 10 credits, all grades must be >= 5.5. <p>Every learning goal must be passed. One retake assessment is offered on the condition that the student contributed substantially to the group work, according to the complete lecturer team.</p> <p>During this module, the student is expected to show Professional Skills. This is assessed by lecturers and rated as "Sufficient" or "Insufficient". In case it's rated as "Insufficient", the module (or part of it) cannot be passed successfully anymore and must be retaken in its entirety.</p> <p>As part of Professional Skills, we expect an active contribution, proper communication, a quantitatively adequate amount of effort and an adequate availability to enable proper group work and effective coaching hours.</p> <p>In case a student shows a clear lack of professional skills, the student will be invited for a meeting with TWO involved lecturers. During that meeting, after fair hearing, the student can get an official warning.</p>								

This means that behavior must improve within two weeks and specific conditions will be set and documented by the lecturers. If the student does not fulfil the mentioned conditions within these two weeks (according to both lecturers), “Professional Skills” is rated as “INSUFFICIENT” during the project and the student therefore will be removed from the project. Regular presence, i.e. less than three absences, is mandatory as minimum to pass the “Professional Skills” component.