

# BBM384 SOFTWARE ENGINEERING LABORATORY INTRODUCTION

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# COURSE SCHEDULE

BBM384 SOFTWARE ENGINEERING LABORATORY					
Week #	Date	Content	Ch's	Other References	Deliverables (see below)
1	February 25, 2021	Introduction	1.2	SDLC & Dev.Schedule	
2	March 4, 2021	UML & Tool Intro, System Description	2.3	Sw.Vision & Prj.Plan Temp.s	
3	March 11, 2021	UML Modeling (Context, Use Case, Activity D.)	4	SRS Template, Sw.Vision & Prj.Plan Examples	DEL #1 (on March 14)
4	March 18, 2021	Live question-answer session	4	SRS example (UCD, GUI, Data model)	
5	March 25, 2021	Live question-answer session	5.6	<a href="#">Github Flow</a>	DEL #2
6	April 1, 2021	UML Modeling (Package, Component, Deployment D.) Example Arch. & HL Design Modeling with UML	6,7	Sys.Test Case Temp., Arch.Notebook Temp.	
7	April 8, 2021	Live question-answer session (About DEL3)	7		
8	April 15, 2021	Demo presentations		Example Coding Std, SDD Template	demo & test cases report
9	April 22, 2021	Live session about DEL4	8		DEL #3: Architecture! Notebook & Config. Management Report & Risk Management Report, due date: May 03, 2020
10	April 29, 2021	UML Modeling (Statechart, Class, Sequence D.) - 1 Example Design & Impl. Modeling with UML	9	Sys.Test Report Temp.	
11	May 6, 2021	Live session about DEL5			DEL#4:Deadline: May 20, 2021, 23:59
12	May 13, 2021	Ramadan Eid Break			
13	May 20, 2021				
14	May 27, 2021	Project presentations			DEL #5

# GRADING

Project deliveries:	Documentation:	Software / code:	Mark %	Total milestone mark
DEL #1	Software Vision		4%	10%
	Project Plan		6%	
DEL #2	Software Requirements Document		15%	15%
DEL #3	Architectural Notebook		5%	25%
	List of System Test Case Definitions		3%	
		Prototype 1: demo of 3 use cases (one is critical)	10%	
	Risks management report (see tab "Writing risk mng report")		3%	
	Configuration/change management report (see tab "Writing change mng report")		4%	
DEL #4	Software Design document (UML models)		10%	12%
	Coding Standard		2%	
DEL #5	Software Test RESULT Report		5%	38%
	Risks management report (see tab "Writing risk mng report")		5%	
	Configuration/change management report (see tab "Writing change mng report")		5%	
	Presentation (EACH STUDENT should say what s/he has done)		5%	
		Release: Final demo of software product (all use cases)	18%	
			100%	100%

# GRADING (CONT)



**A minimum of 80% attendance to BBM384 Software Engineering Laboratory sessions are COMPULSORY !!!**

# COMMUNICATION

The course excel sheet will be updated regularly throughout the semester with lecture notes, laboratory notes, reading assignments, templates and important deadlines. All other communications will be carried out through Piazza. Please enroll it by following the links

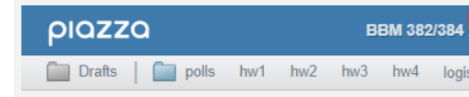
**The link of Course Web Page:**



2021S - BBM 382-384 - Software Engineering and Lab

<https://tinyurl.com/1mvwclj1>

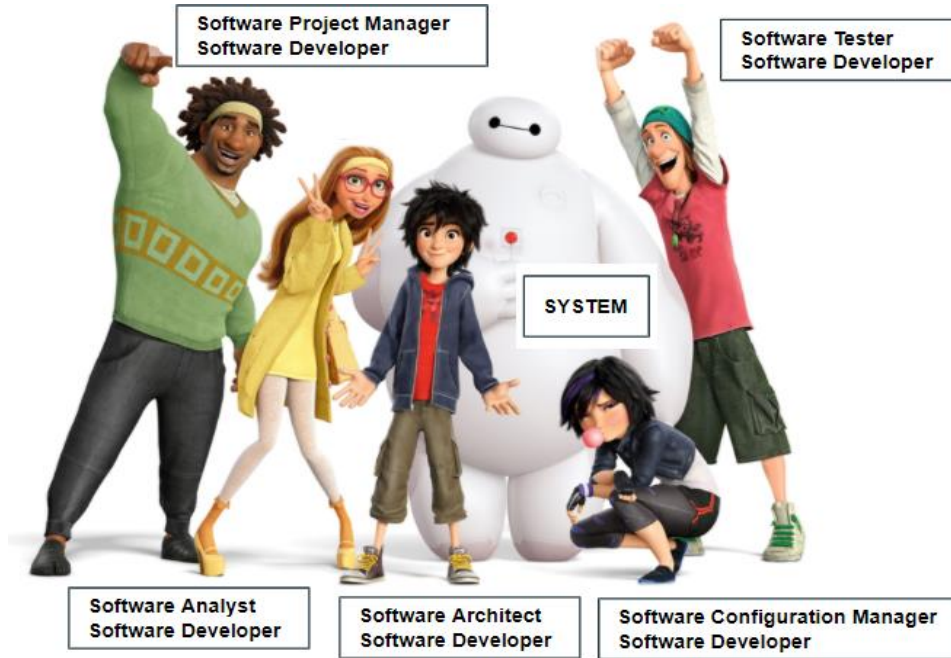
**The link of Piazza Page:**



<https://piazza.com/hacettepe.edu.tr/spring2021/bbm382384>

**The Office hours of research assistants will be announced later**

# LABORATORY GROUPS



Until March 7 Sunday

5 group  
members

<https://drive.google.com/file/d/1Qy5XarT4YViBijMW6UiVBhCpeVuWXH62/view?usp=sharing>

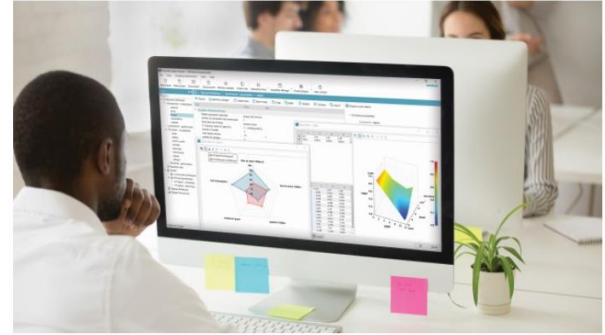
# SPECIALIZED TEAM ROLES



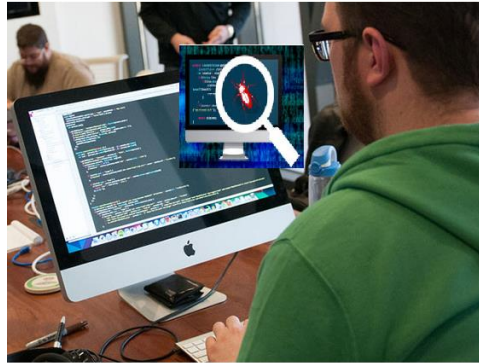
**Software Project Manager**



**In addition to  
Software Developer**



**Software Analyst**



**Software Tester**



**Software Architect**



**Software Configuration Manager**

# THE SOFTWARE DEVELOPER



## Software Developer duties and responsibilities

- Researching, designing, implementing and managing software programs
- Testing and evaluating new programs
- Identifying areas for modification in existing programs and subsequently developing these modifications
- Writing and implementing efficient code
- Determining operational practicality
- Developing quality assurance procedures
- Deploying software tools, processes and metrics
- Maintaining and upgrading existing systems
- Training users
- Working closely with other developers, UX designers, business and systems analysts



# THE SOFTWARE PROJECT MANAGER

## Responsibilities of a Project Manager

- Activity and resource planning
- Organizing and motivating a project team
- Controlling time management
- Cost estimating and developing the budget
- Ensuring customer satisfaction
- Analyzing and managing project risk
- Monitoring progress
- Managing reports and necessary documentation



# THE SOFTWARE ARCHITECT



## Architectural Drivers

Understanding requirements and constraints

## Technology Selection

Choosing and evaluating technology

## Architecting

Designing software

## Architecture Evaluation

Understanding that the architecture works

## Coding

Involvement in the hands-on elements of software delivery

## Architecture Evolution

Ownership of the architecture throughout the delivery

ROLES

RESPONSIBILITIES



## Quality Assurance

Introduction and adherence to standards and principles

## Coaching and Mentoring

Guidance and assistance

# THE SOFTWARE ANALYST



# THE SOFTWARE CONFIGURATION MANAGER

- ❖ Requirement Documents
- ❖ Design Documents
- ❖ Test Documents
- ❖ Source Code
- ❖ Executables
- ❖ Databases
- ❖ Test Data
- ❖ Bug Reports
- ❖ Build
- ❖ Servers

Identify configuration items

Define policies and procedures for change management

Define versioning, baselining, build and release procedures

Prepare configuration management plan

Configuration control

Configuration audit

Configuration reporting



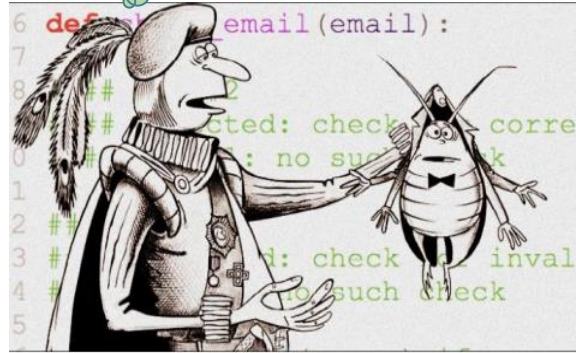
# THE SOFTWARE TESTER



Reviewing software requirements and preparing test scenarios

Executing tests on software usability

Analyzing test results on database impacts, errors or bugs, and usability



Preparing reports on all aspects related to the software testing carried out and reporting to the design team

Interacting with clients to understand product requirements

Participating in design reviews and providing input on requirements, product design, and potential problems

# March

— 2021 —

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

