ENTREGA 2
INGENIERÍA DE REQUISITOS

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FACULTAD DE MINAS
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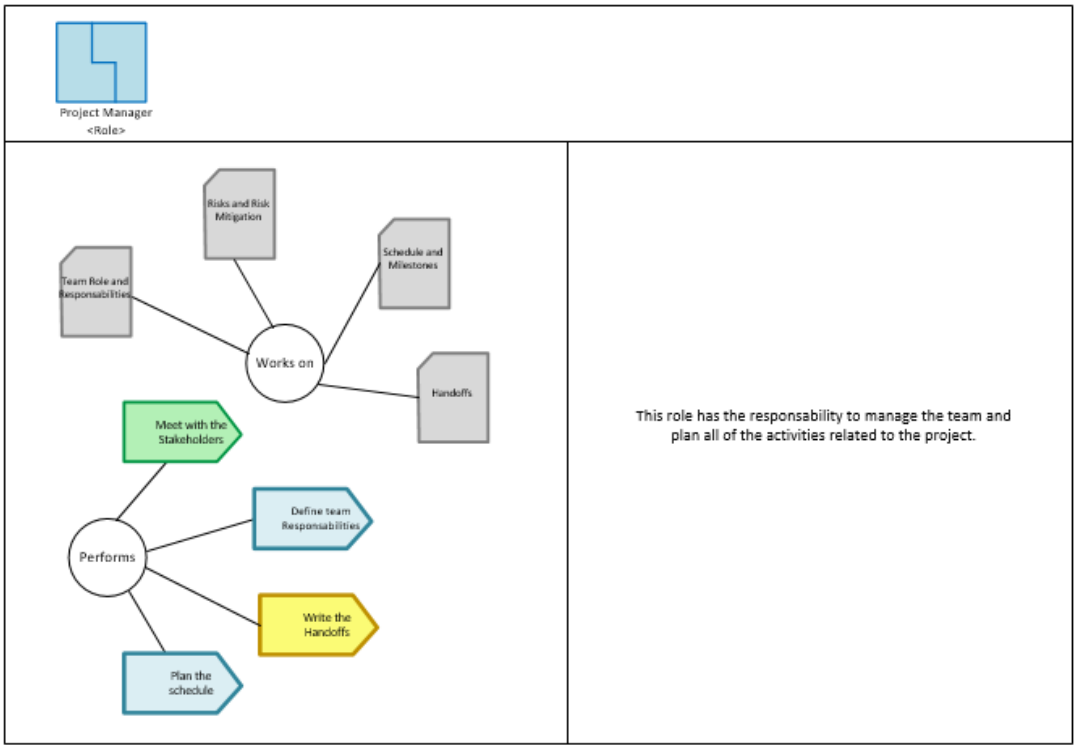
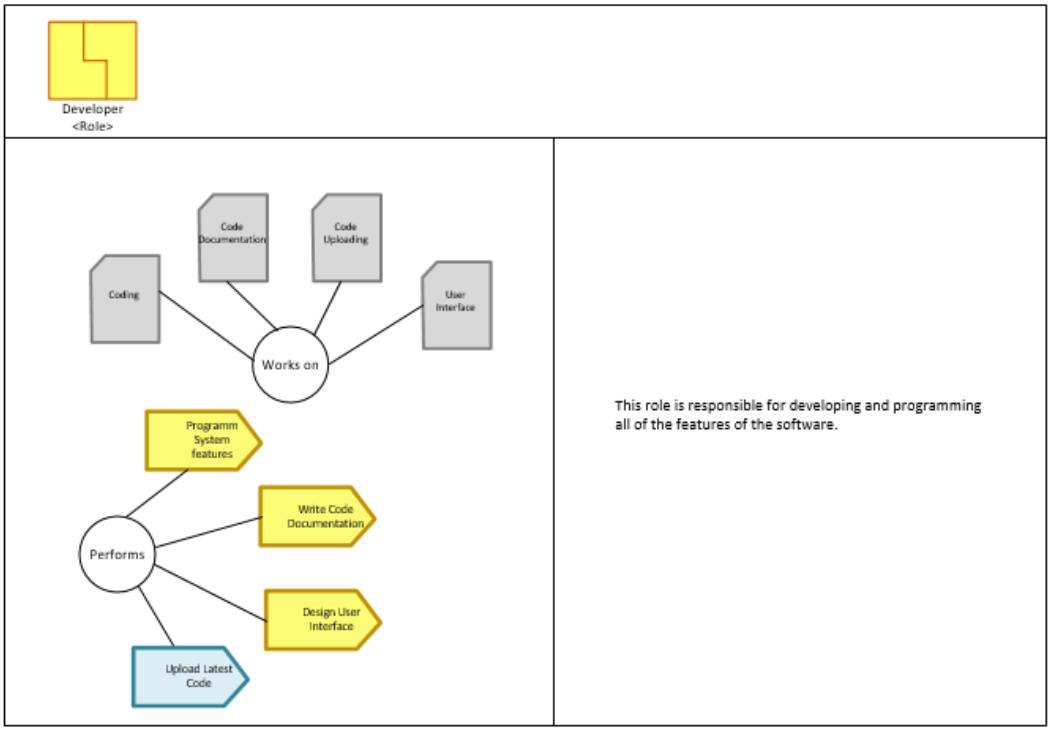
Project plan

Team Roles and Responsibilities

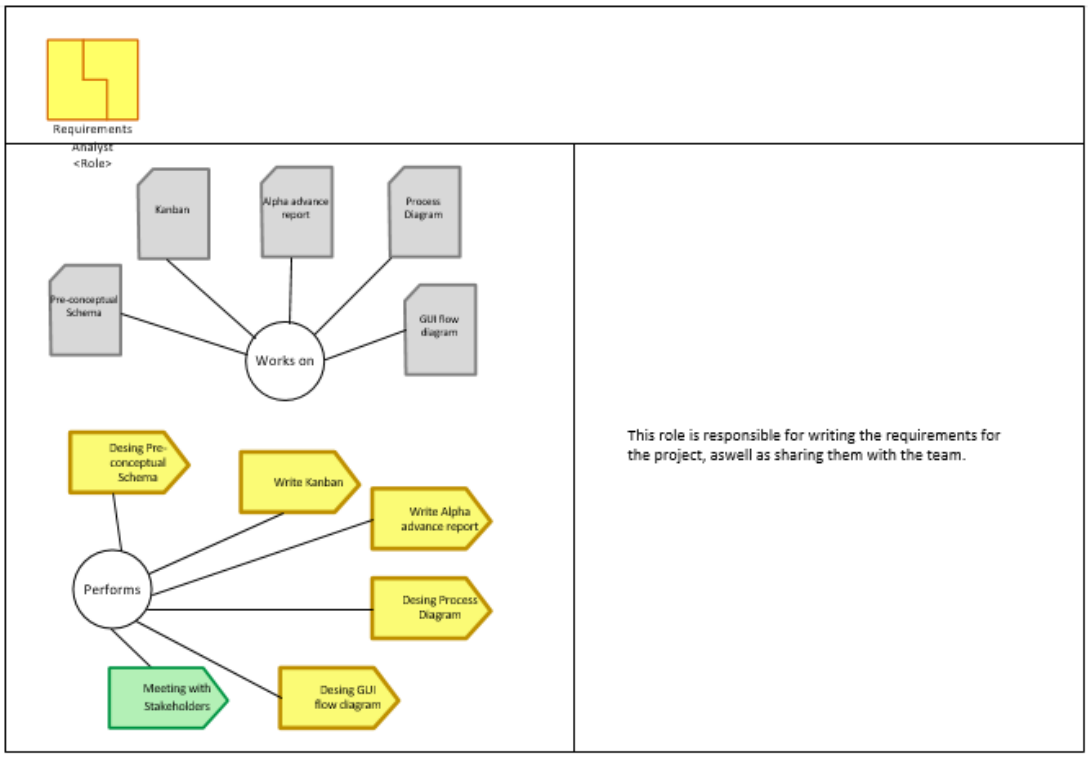
- Project Manager



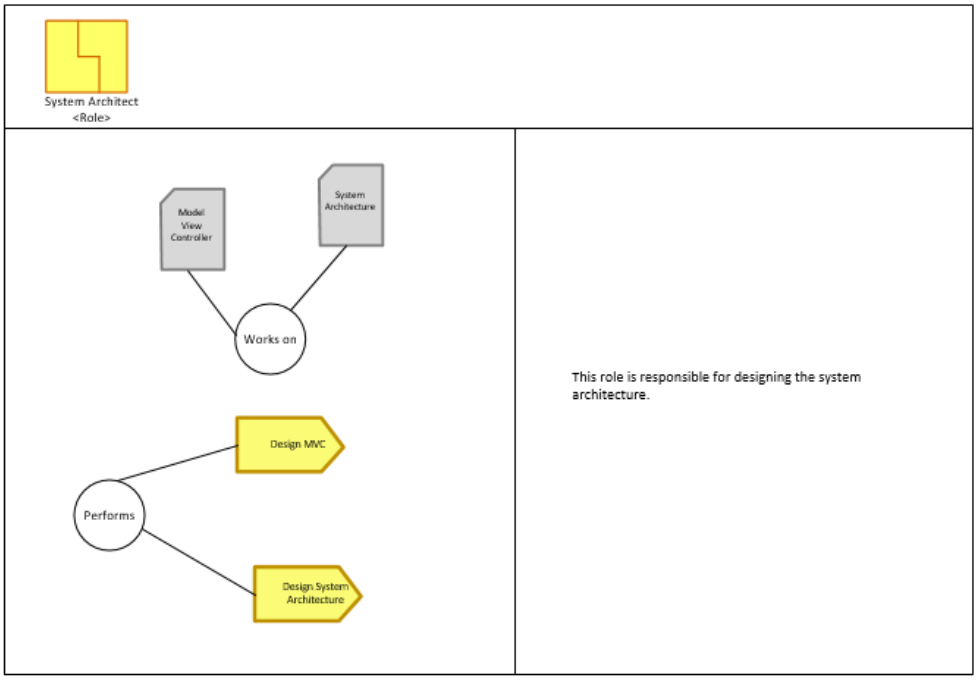
- Developer



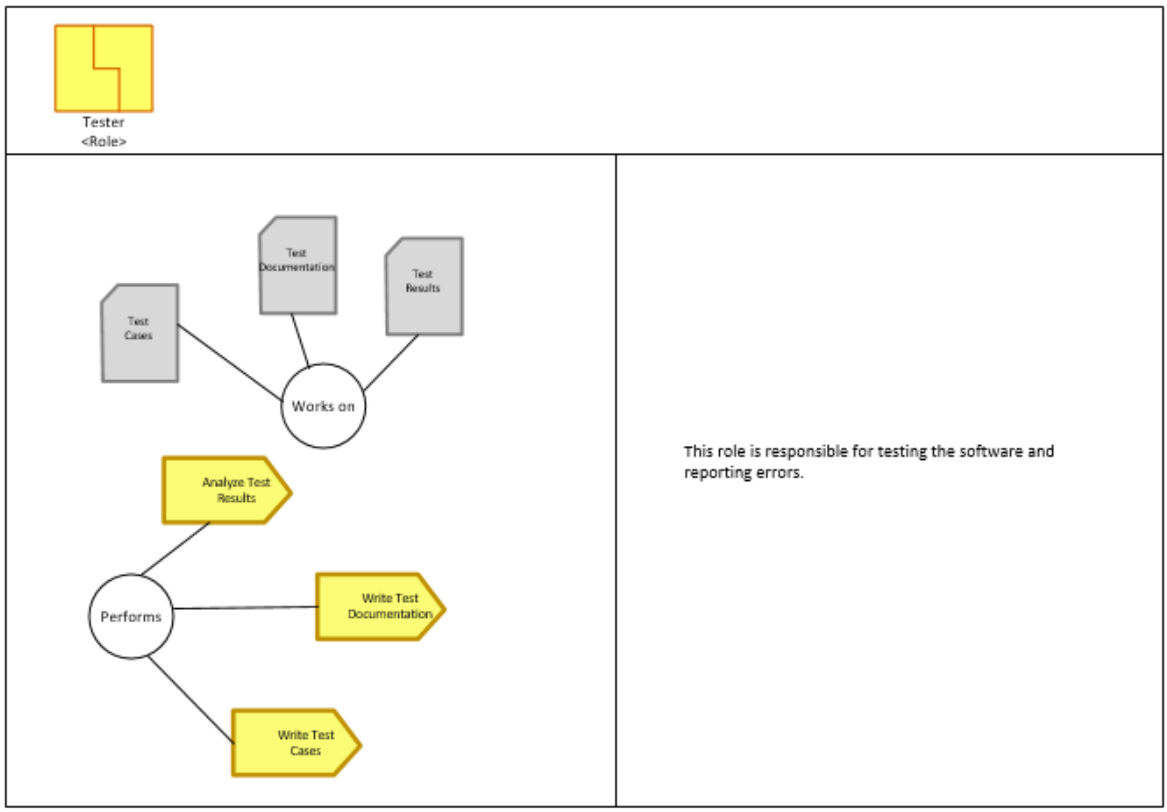
- Requirements Analyst



- System Architect



- Tester



Risks and Risk Mitigation

#	Risk name	Risk description	Source	Causes	Risk rate	Consequences
R01	Loss of key staff	Staff can cancel their subscription to this course.	Students	Lack of motivation. Bad grades on the first weeks of the semester. Lack of the required time.	Q=4 L=3 RR=High	Delays in the project. Tasks without owner (responsible)
R02	Poor communication with partners	The quality of the communication between team members can affect negatively the project.	Work team	Indifference to the work of others. Lack of understanting of the whole project.	Q=4 L=4 RR=Very High	Delays in the project. Failure to stick to the schedule. Conflicts between team mates.
R03	Language barrier	The english and technical skills of each team can difficult the communication with the others	Distributed teams	Differences in english and technical skills. Unability to communicate in english or technical details of the project.	Q=3 L=3 RR=Medium	Unclear handoffs.
R04	Bad distribution of the tasks	The tasks are not distributed properly	Project manager	Lack of understanting of the task descriptions	Q=2 L=3 RR=Low	Stress, frustration, lack of motivation.
R05	Schedule flaws	The team has problems planning tasks and assigning the duration of each of them	Work team	Lack scheduling and time planning skills	Q=3 L=3 RR=Medium	Delays in the project. Confusion about the tasks order and duration.
R06	Misunderstading of requirements	The team doesn't clearly understand the requirements	Requirements Analyst. Stakeholders	Not enough meetings with the stakeholders. The stakeholders are not clear about the requirements. Requirements analyst didn't do a satisfactory work	Q=4 L=4 RR=Very High	Delays in the project. Emergence of extra work and futility of some of the work already done.
R07	Change of requirements	Requirements change along the project	Stakeholders.	Market changes. New ideas appear during the development process.	Q=4 L=2 RR=Medium	Delays in the project. Emergence of extra work and futility of some of the work already done.

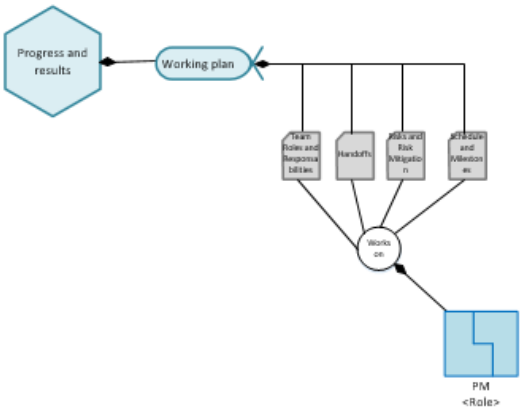
Risks detail

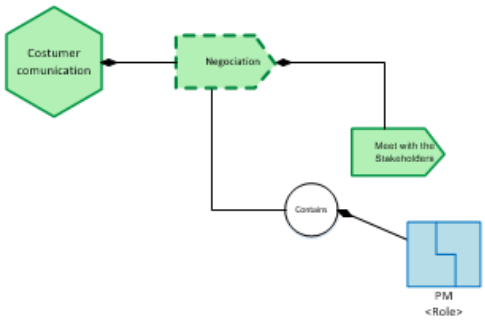
#	Risk name	Control, Mitigations	Frecuency	Responsible	Staff Involved
R01	Loss of key staff	Group motivational talks	When needed	Project Manager	Work Team
R02	Poor communication with partners	Information meetings (to know how the work is going and to ask if somebody needs any help).	Twice a week	Project Manager	Work Team
R02	Poor communication with partners	Use of social networks and Whatsapp Groups to communicate with all the team members	When needed	Work Team	Work Team
R03	Language barrier	Use of technical translators to communicate some of the most difficult words and expressions.	When needed	Work Team	Work Team
R04	Bad distribution of the tasks	In the information meetings the team will inform if any redistribution is needed.	Twice a week	Project manager	Work Team
R05	Schedule flaws	Use of diagrams and defined deadlines.	Once a week	Work Team	Work Team
R06	Misunderstading of requirements	Explanation meetings	Once a week	Requirement Analyst	Work Team
R07	Change of requirements	Continiuos communication with the stakeholders.	Once a week	Project manager, requirement analyst	Project manager, requirement analyst.

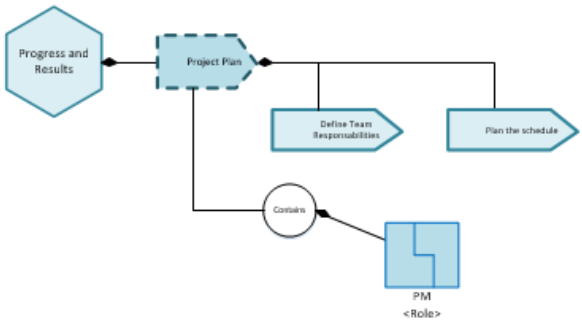
Risks mitigation

Software Development Practices

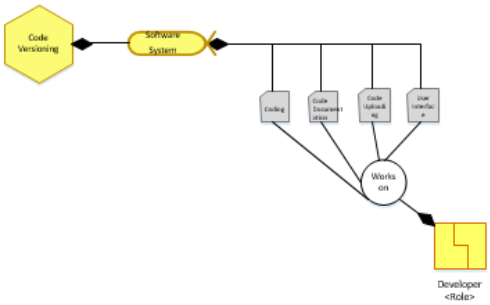
- Project Manager

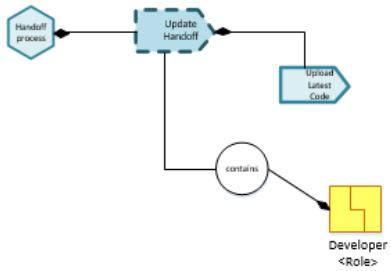


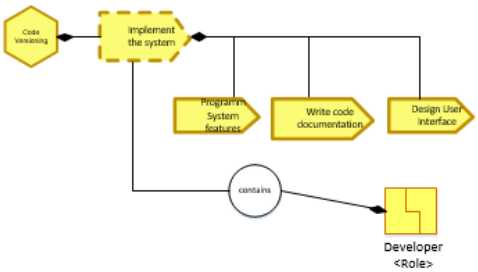




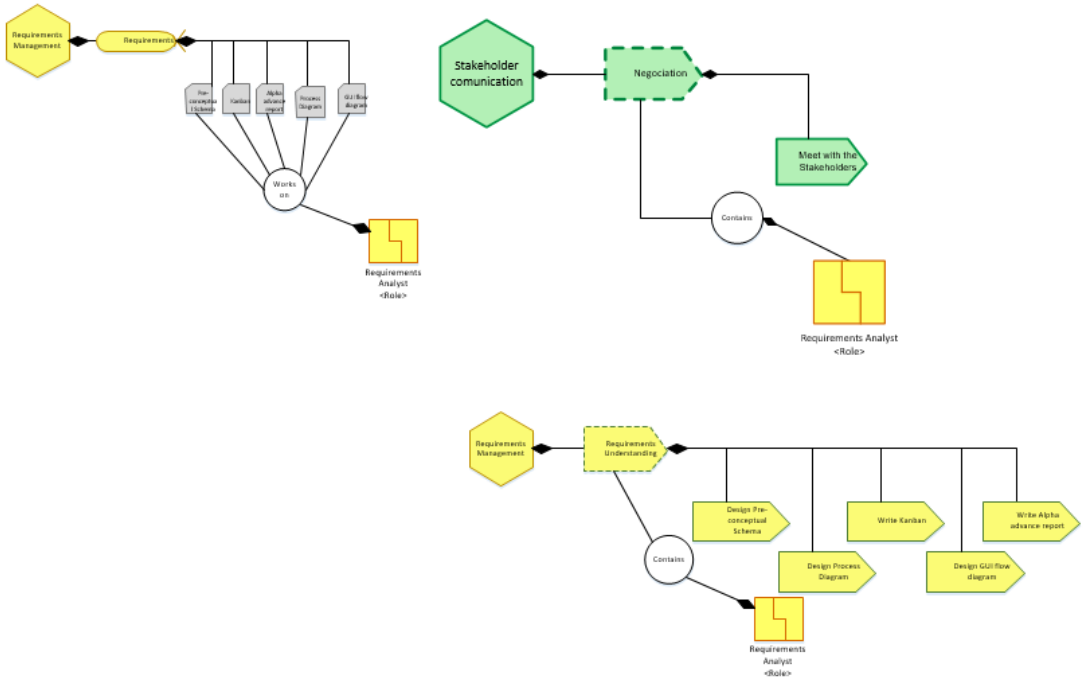
- Developer



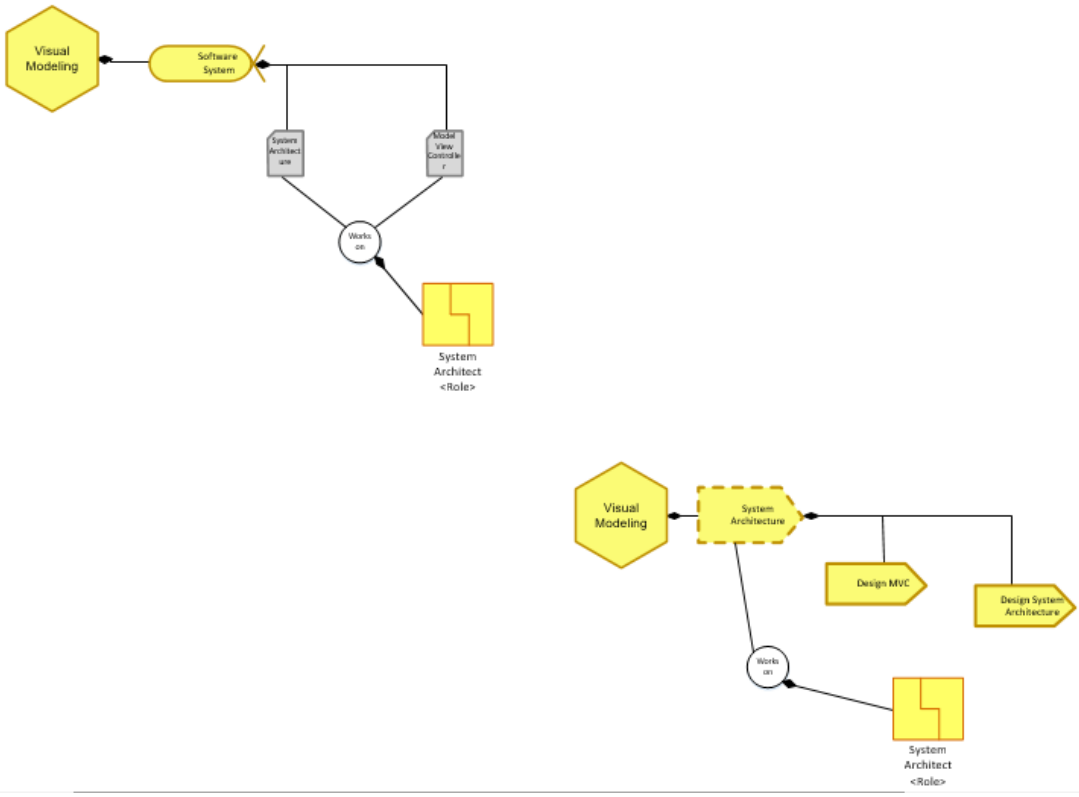




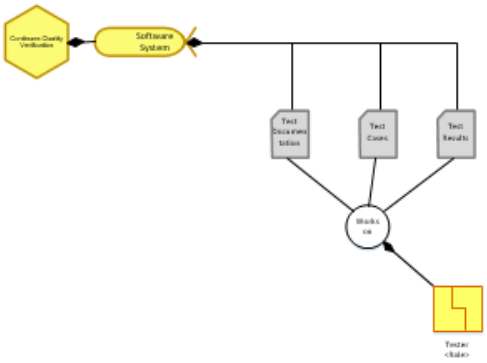
- Requirements Analyst

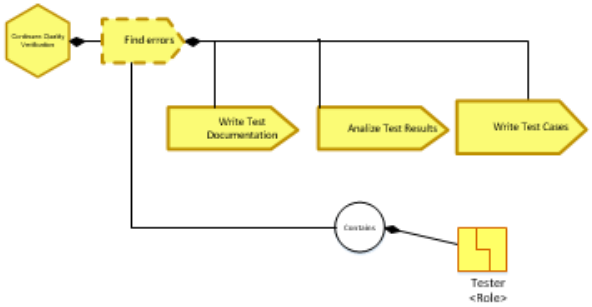


- System Architect

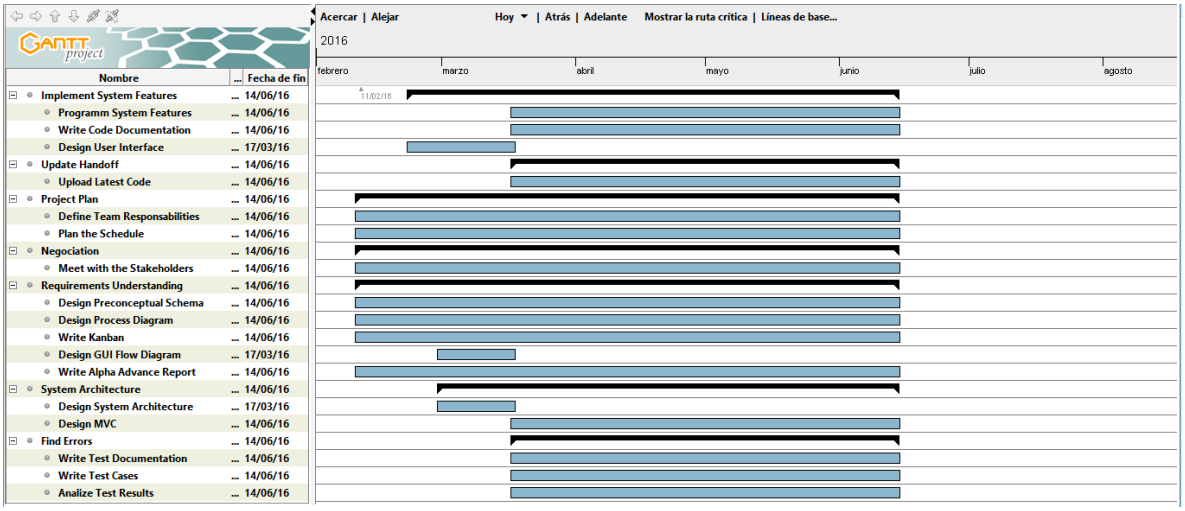


- Tester





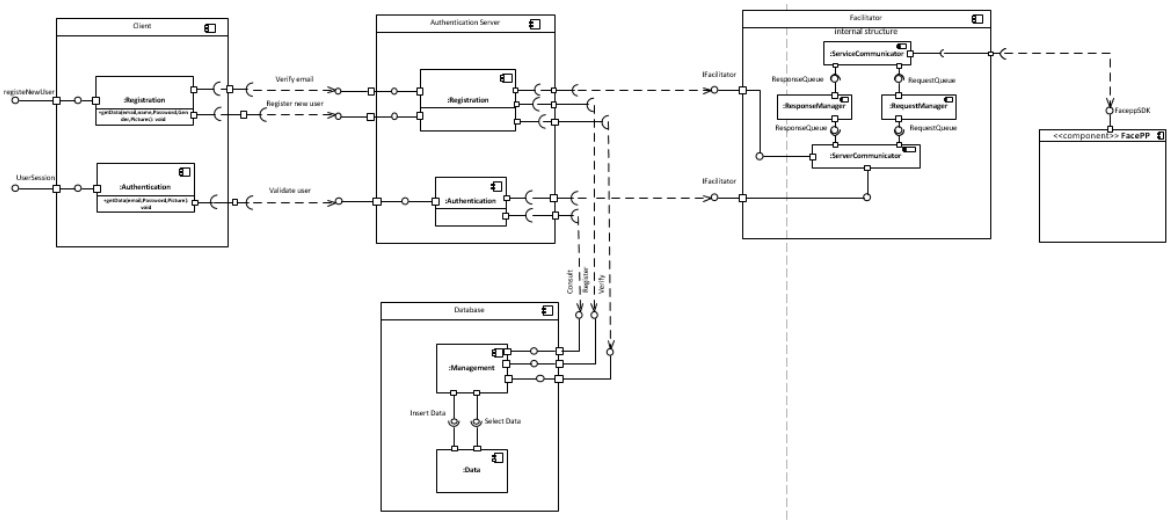
Detailed Schedule and Milestones



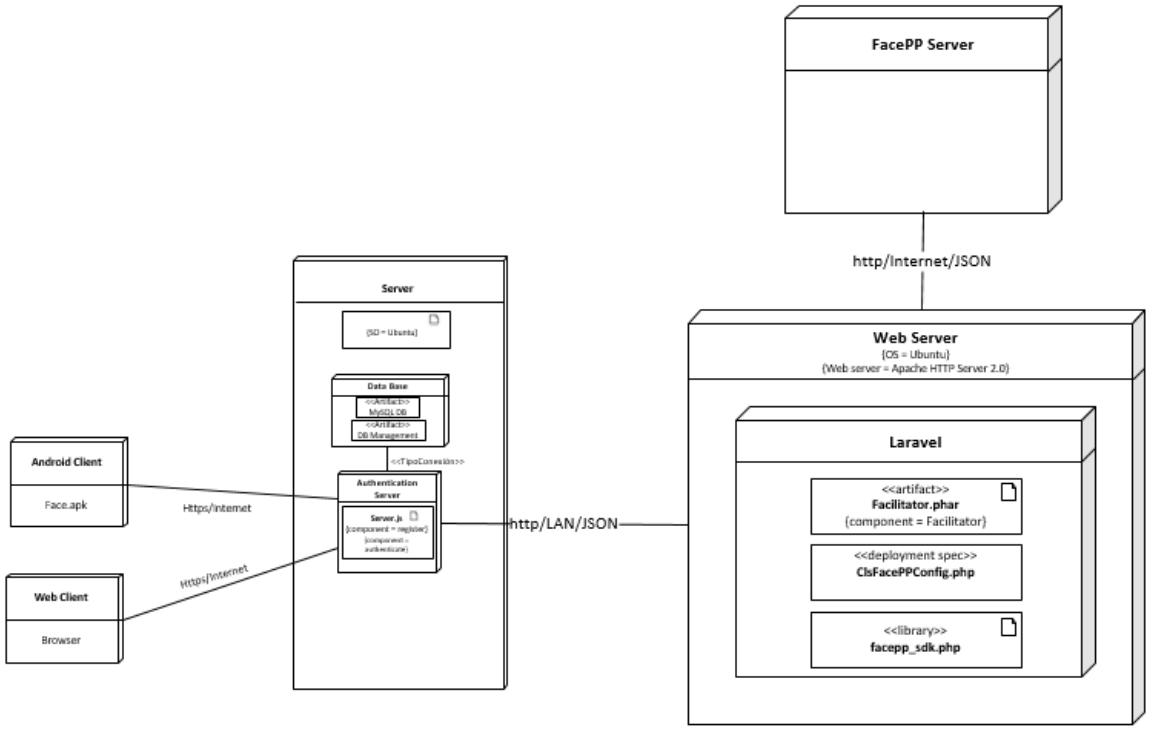
Software design

Software architectures

Component diagram



Deployment diagram



Module interface specifications

I. Introduction

The Android client API provides an standard way for interacting with the authentication server for any Android application. To do so it provides some methods to give access to the servers services, like the registration of a new user, the authentication of an user, and the verification of an email.

II. **Interface Overview**

a. Services Provided

Service	**Provided by**	**Tested By**
1. Register a new user in the service.	registerNewUser	
2. Validate an existing user with a picture	validateUser	
3. Verify if an email address is already registered	verifyEmail	

b. Access Methods

Access Method	**Parameter name**	**Parameter type**	**Description**	**Exceptions**	**Map to services**
registerNewUser	1. e-mail: IN 2. name: IN 3. Password: IN 4. Gender: IN 5. Pictures: IN 6. Result: OUT	1. String 2. String 3. String 4. String 5. Vector<Picture> 6. Integer	1. Email of the user, it'd be used to identify him inside the application. 2. name of the user. 3. password of the user.	**1** **2**	**1**

	7. Not valid Pictures: OUT	7. Vector<Picture>	4. Gender of the user (F or M) 5. Set of pictures of the user for training facilitator 6. A result code according to the success or failure of the operation. 7. A vector of pictures containing the ones that failed to be submitted to the server, they should be changed for new ones.		
validateUser	1. email: IN. 2. password: IN 3. picture: IN 4. result: OUT	1. String 2. String 3. Picture 4.Integer	1. Email of the registered user. 2. password of the user. 3. Picture to validate the user. 4. The result code of the validation.	2	**2**

verifyEmail	1. email: IN. 2. result: OUT	1. String 2. Bool	1. Email address to be verified. 2. Result of the verification. (true if it's not registered or false otherwise).		**3**

c. Access Method Effects

Access Method	**Description**
registerNewUser	It takes the information received as parameters and sends them to the server in a JSON format, then it waits for the response and returns it to the application so it can show the correct UI according to the result code.
validateUser	It takes the information received as parameters and sends them to the server in a JSON format, then it waits for the response and returns it to the application so it can show the correct UI according to the result code.
verifyEmail	It takes the information received as parameters and sends them to the server in a JSON format, then it waits for the response and returns it to the application so it can show the correct UI according to the result code.

III.Local Types

Type	**Value Space**
Picture	Is an object that has two attributes: An Integer ID and a JPG file.

III. Exception Dictionary

Exception Name	Assumption	Tested by
1. Email already registered	The email is already registered in the system.	TC2
2. Invalid picture	Some of the sent images were not accepted by the server.	TC1

IV. Test Cases

To be determined.

V. Design Issues

VI. Review Questions

Requirement Validity

1. For each service provided by the module, is the service valid for all expected uses of this module? If not, give an example of a use where the service is not valid.

2. For each service provided by the module, is the service valid for all expected configurations and versions of this module? If not, give an example of a needed configuration or version where the service is not valid.

3. For each service needed described in this specification, is a module (or set of modules) identified that this module is allowed to use to satisfy the need?

4. Are there cases where the interface specification could not be satisfied or was incomplete? If so, how should it be changed?

Requirements Sufficiency

1. Does the set of services provided specify all of the services that will be needed by users of this module? Are there any services defined that are not identified in the requirements?

2. Does the set of services needed specify all of the services that this module will need from other modules in order to operate correctly? What services are needed that are not identified in the requirements?

Consistency Between Services Provided and Access Programs

1. For each Services Provided described in this specification, which access program(s) can be used to satisfy the service?

2. For each access program specified in sections 1.2.2 which Service Provided is satisfied by the access programs?

Access Program Adequacy

1. Is the set of access programs sufficient to satisfy the needs of modules that are allowed to use this module?

2. Are there access programs that should be combined into one access program?

3. Are there single access programs that should be refactored into several different access programs?

4. Are the performance requirements adequate for the uses that will be made of this module?

Handoff 2

1. What has been done during the last period?

We planned how we were going to get the 2nd deliverable done. Also, we read the feedback from the last deliverable to know what we had to improve for the next one.

2. How the work should be continued?

We planned that we were going to separate in two teams to do the work products, and each one has this tasks:

Diego (Project Manager):

- Update Kanban and Alpha State Reports

- Improve and Update Schedule and Milestones

- Improve Team Roles and Practice/Phases diagrams

- Write Handoffs

- Collaborate with the group to design Software Architectures

Juan Diego (Developer) and Nicolas (Tester):

- Design GUI flow diagram

- Design Use Cases diagram

- Improve Preconceptual Schema

- Write Module Interfaces

- Design Class diagram

3. Is there any obstacle blocking the team?

We still have miscommunication with each other

Handoff 3

1. What has been done during the last period?

We made some progress with the work products from last Handoff, still have to improve some of them. Nicolas and Juan Diego went to Carlos Zapata for advice.

2. How the work should be continued?

We still have the some of the tasks from last Handoff since we still have to improve the work products:

Diego (Project Manager):

- Update Kanban and Alpha State Reports

- Improve and Update Schedule and Milestones

- Improve Team Roles and Practice/Phases diagrams

- Write Handoffs

Juan Diego (Developer) and Nicolas (Tester):

- Improve GUI flow diagram

- Improve Module Interfaces

- Improve Class diagram

3. Is there any obstacle blocking the team?

We still have miscommunication with each other.

Handoff 4

1. What has been done during the last period?

We finished all the work products, the 2nd deliverable is ready.

2. How the work should be continued?

The 3rd deliverable is ahead and we still have to improve the work products with the feedback that Carlos Zapata will give us.

3. Is there any obstacle blocking the team?

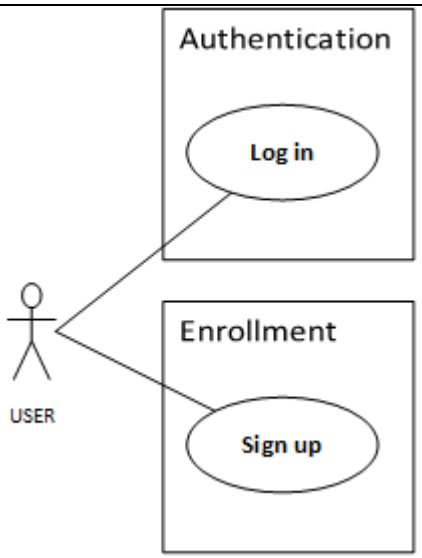
We improved miscommunication, but we still have it.

Work Products

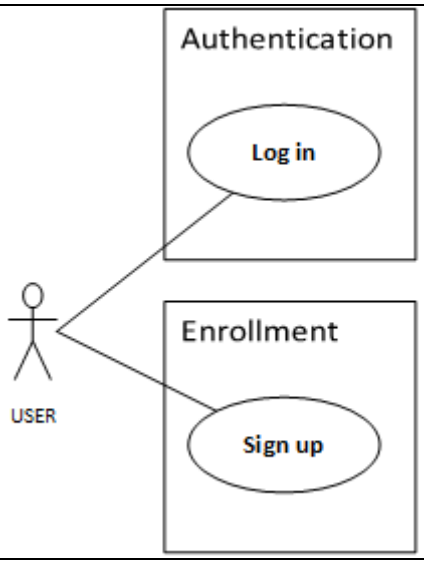
Use cases

Use Case	UC01 Register User		
Version	1.0.0	**Fecha**	09/13/2016
Author	Juan Diego Merino, Nicolás Henao, Diego Giraldo, Camilo Parra and Sebastian Cano		
Source	DSD Process Work Products		
Purpose	Registering a user		
Goals	G1: Increasing the Users. G2: Receiving the registration request. G3: Confirming that the User hasn't been created. G4: Providing the information to train the web services to the Facilitator. G5: Receiving the information from Facilitator. G6: Storing the new User information into the Database. G7: Confirming the creation of the new User to the Client.		
Summary	Creates a new User by storing its information and training the web services.		
Actors	A0: User		
Precondition	The user doesn't exist		
Interaction Sequence	**User**	**System**	
1	Clicks on "Sign Up" button	Displays the "sign up interface"	
2	Enters the name, e-mail and gender and clicks on "Verify button"	Displays the "training interface"	
3	Takes or upload 8 pictures clicking in the "+ icon"	Displays the "camera interface"	
4	Takes the picture with the take button	Displays the "training interface" with the new picture	

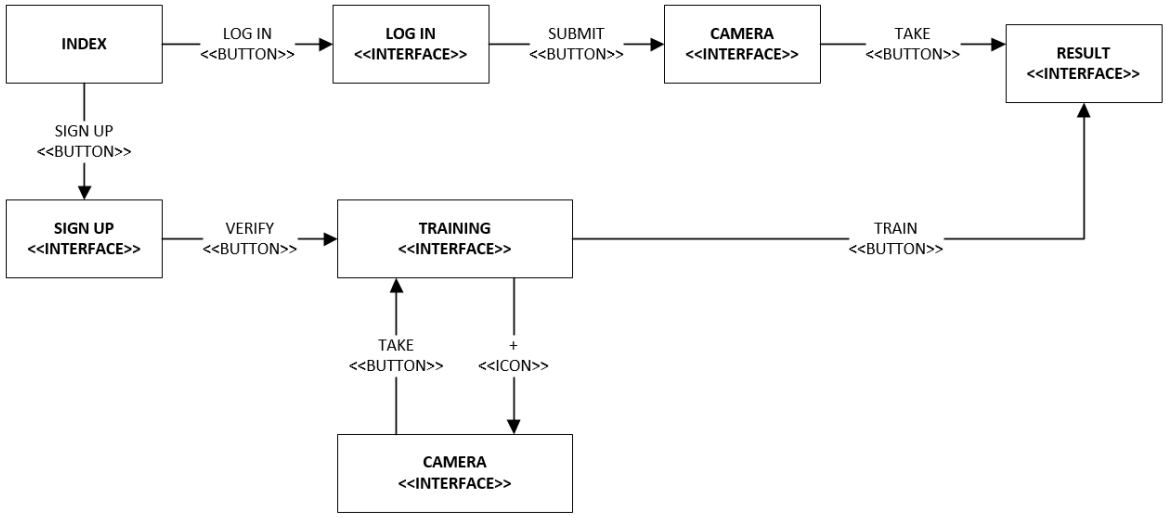
5	Clicks on “Train button” to upload the pictures.	Displays the message “User successfully registered” in the “result interface”

Use Case	UC01 Register User	
Alternative sequence	**System**	**User**
2	Displays “Failed to register – already registered”	
5	Displays “Failed to register – Invalid pictures”	Takes or uploads new pictures to complete the 8 pictures again.
Duration	Optimum: 6 minutes Average: 10 minutes Maximum: 15 minutes	
Frecuency	20 times a week	
Type	Primary	
Postconditions	The user has been authenticated	
Chart		
Interface	Check Android GUI.pdf	

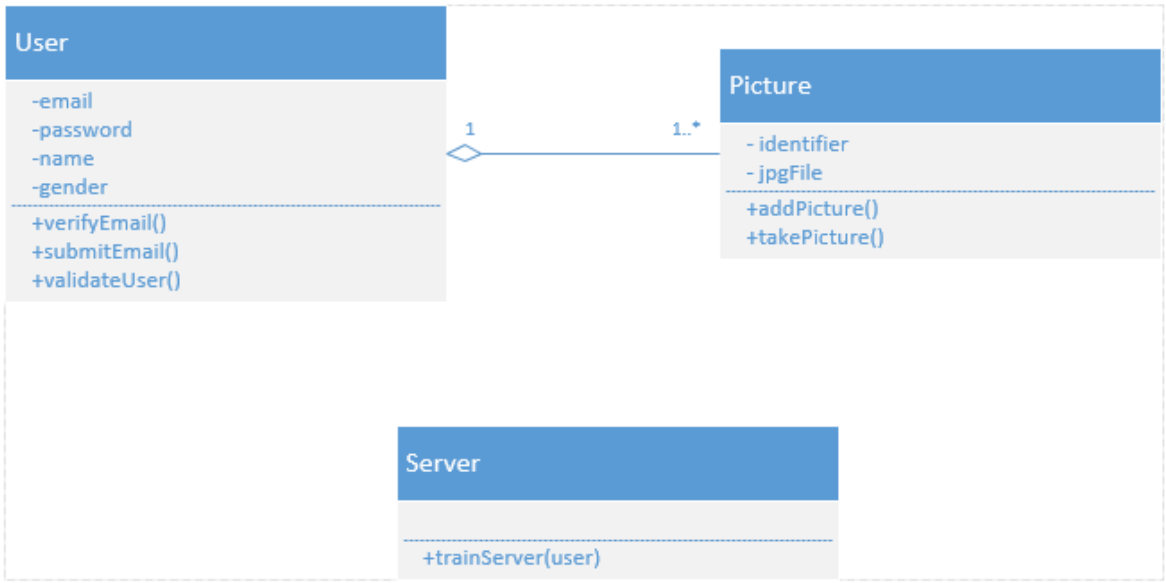
Use Case	UC02 Authenticate User		
Version	1.0.0	**Fecha**	09/13/2016
Author	Camilo Parra and Sebastian Cano		
Source	DSD Process Work Products		
Purpose	Confirming a User’s identity		
Goals	G1: Receiving the authentication request from any source. G2: Verifying the existence of the username in the Database. G3: Sending the authentication request information to the Facilitator. G4: Receiving the result response from the Facilitator. G5: Acquire the User’s information from Database. G6: Sending the result response and User’s information to the device that made the requirement.		
Summary	The system receives an authentication request, verifying the existence of the username in the Database and if it’s exists, sends it to the Facilitator and if it’s response is positive then acquire the user’s information from the Database and sends it to the device that made the request.		
Actors	A0: User		
Precondition	The user has been registered.		
Interaction Sequence	**User**		**System**
1	Clicks on “Log in”		Displays the “Login interface”
2	Enters the e-mail and clicks on “Submit button”		Displays the “camera interface” to take a picture
3	Takes a picture with the “take button”		Receives the image and displays the “ result interface” with a success message

Use Case	UC02 Authenticate User	
Alternative sequence	**System**	**User**
3	Displays “result interface” with an error message	
Duration	Optimum: 2 minutes Average: 3 minutes Maximum: 5 minutes	
Frecuency	20 times a week	
Type	Primary	
Postconditions	The user has been authenticated	
Chart		
Interface	Check Android GUI.pdf	

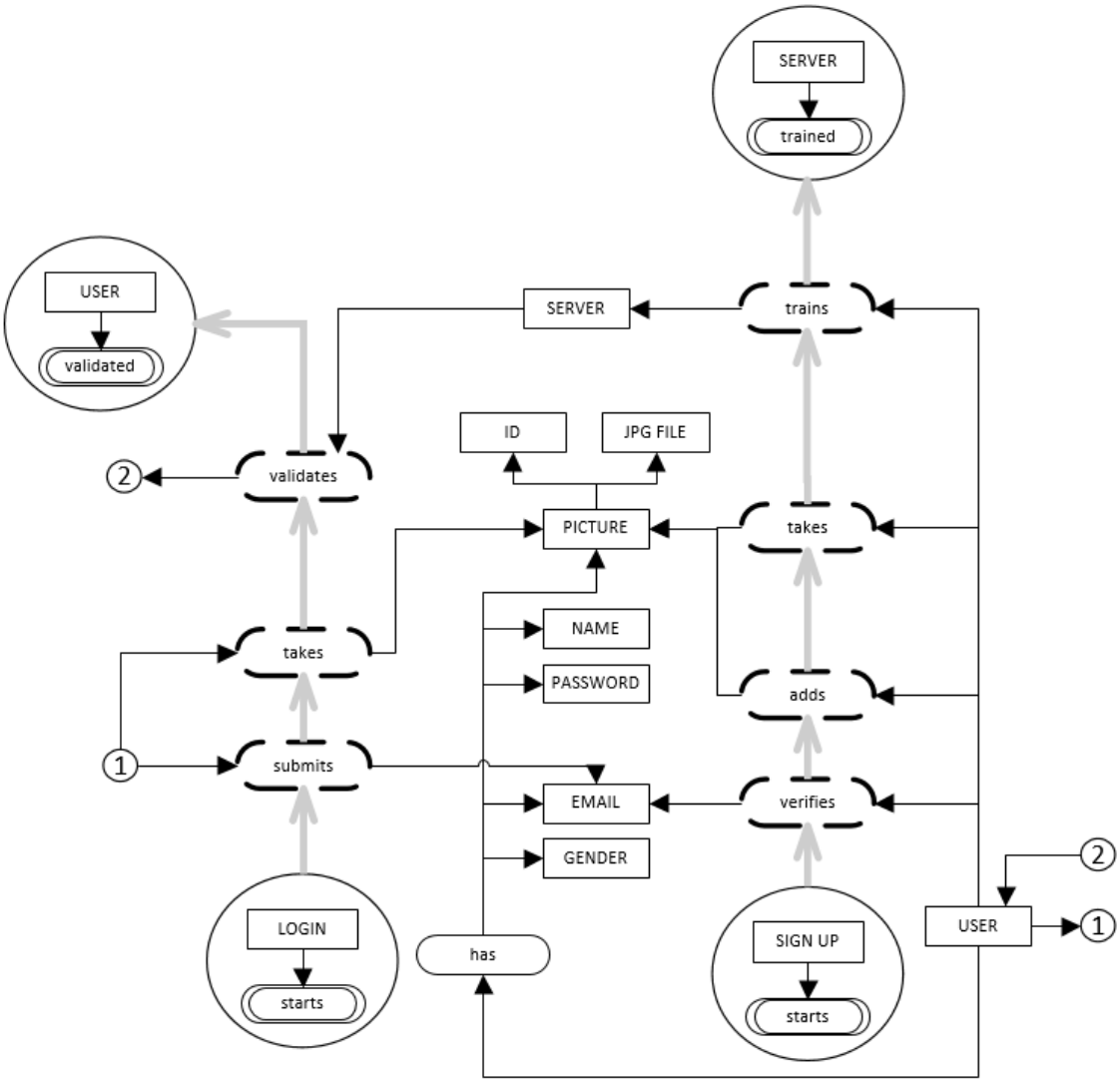
GUI Flow diagram



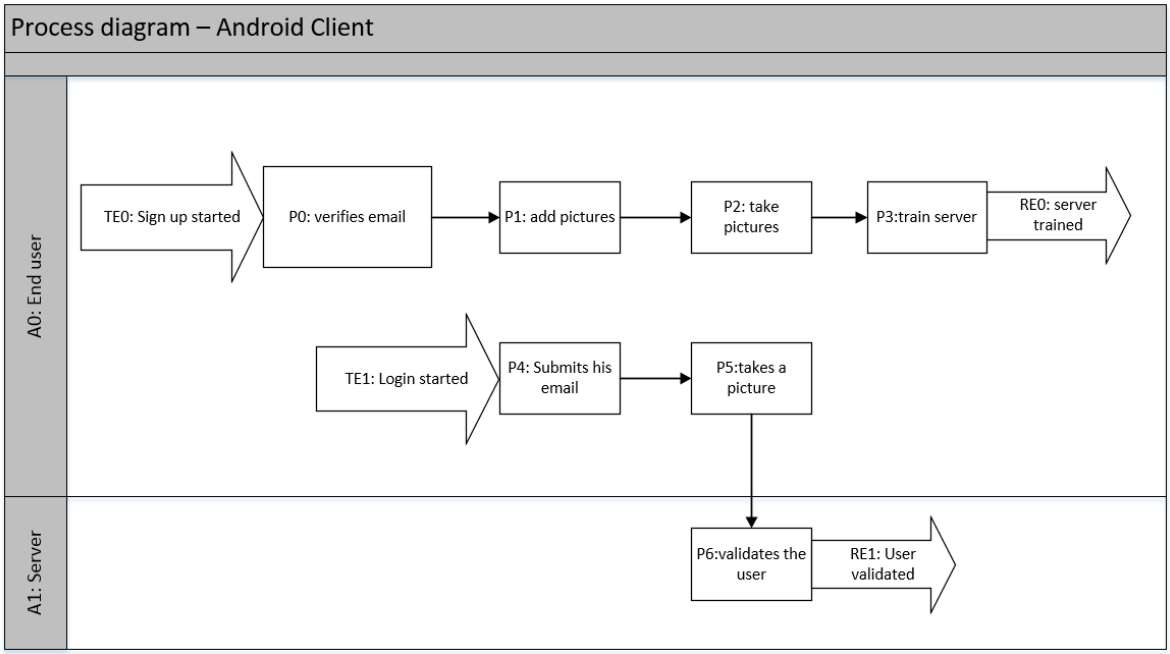
Class diagram



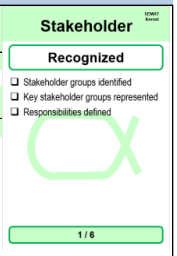
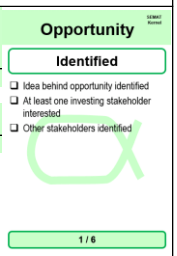
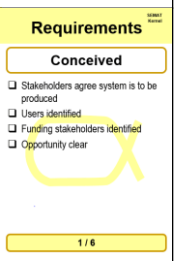
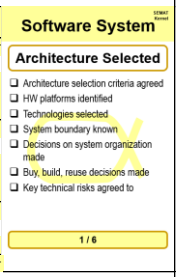
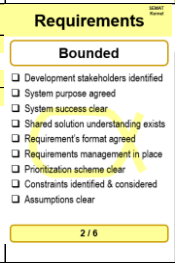
Pre-conceptual schema

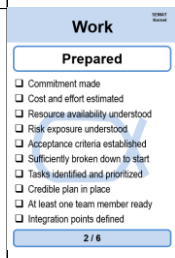
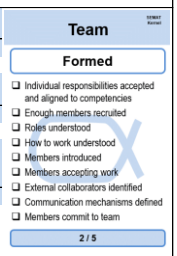
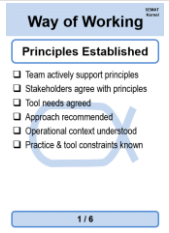
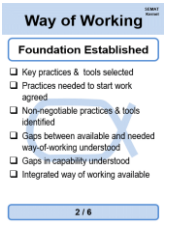


Process diagram

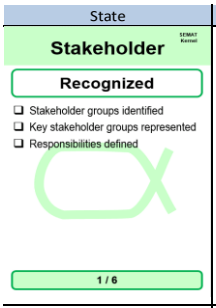
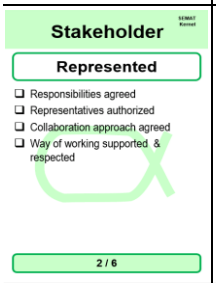
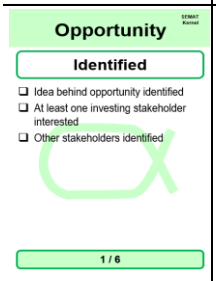
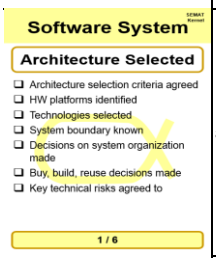
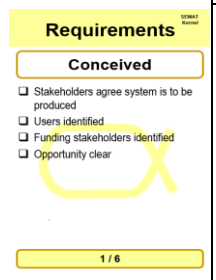
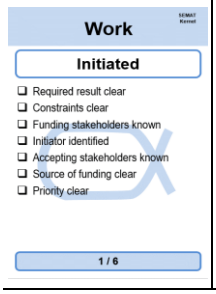


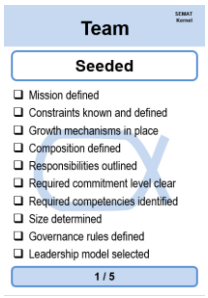
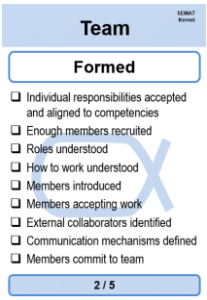
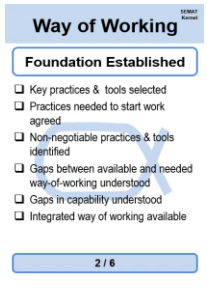
Kanban

Objetives	To do	Doing		Done
				Task 1: Talk with the professor about the features of the software requested Responsible: Project Manager Task 2: Assign Project managers and roles for each of the students Responsible: Carlos Mario Zapata 
				Task 3: Share project managers' email and phone number Responsible: Project Manager Task 4: Have a meeting with Stuart Faulk for clarify questions Responsible: Developer 
				Task 5: Understand the stakeholders' idea, described in the "concept of operations" document Responsible: PM, Developer, Tester Task 4: Have a meeting with Stuart Faulk for clarify questions Responsible: Developer 
				Task 4: Have a meeting with Stuart Faulk for clarify questions Responsible: Developer Task 6: Understand the stakeholders' tecnical requirements Responsible: PM, Developer, Tester 
				Task 8: Define the architecture of the system Responsible: PM, Developer, Tester Task 7: Define platforms, programming languages, and the database engine Responsible: Developer, Tester Task 13: Select which facial recognitions services are going to be used Responsible: Developer, Tester Task 15: Design Interfaces Responsible: PM, Developer, Tester 
		Task 14: Meet with Stuart to ask for more requirements Responsible: Developer Task 16: Improve last pre-conceptual schema Responsible: Developer, Tester		

				Task 1: Talk with the professor about the features of the software requested Responsible: Project Manager Task 4: Have a meeting with Stuart Faulk for clarify questions Responsible: Developer Task 5: Understand the stakeholders' idea, described in the "concept of operations" document Responsible: PM, Developer, Tester	
				Task 9: Fill the risks and risk mitigation table Responsible: Project manager Task 10: Talk with the professor about available resources and infrastructure that will be used Responsible: Project manager	
				Task 2: Assign Project managers and roles for each of the students Responsible: Carlos Mario Zapata Task 5: Understand the stakeholders' idea, described in the "concept of operations" document Responsible: Project manager Task 6: Understand the stakeholders' tecnical requirements Responsible: Project manager	
				Task 11: Elaborate Project manager roles and responsabilities Responsible: Project manager Task 2: Assign Project managers and roles for each of the students Responsible: Carlos Mario Zapata Task 12: Explain work methodology and each member role Responsible: Carlos Mario Zapata	
				Task 12: Explain work methodology and each member role Responsible: Carlos Mario Zapata Task 5: Understand the stakeholders' idea, described in the "concept of operations" document Responsible: Project manager	
				Task 12: Explain work methodology and each member role Responsible: Carlos Mario Zapata Task 5: Understand the stakeholders' idea, described in the "concept of operations" document Responsible: Project manager	

Alpha state advance report

State	How was achieved	Task	Date/Duration	Characteristics
	According to the stakeholders' requirements, teams and roles were defined in order to accomplish the task	Task 1: Talk with the professor about the features of the software requested	4/02/2016 2 hours	A meeting was done during the class time
		Task 2: Assign teams and roles for each of the students	12/02/2016 2 hours	According to the CVs sent by the students, the professor formed five teams and assigned roles
	Making meetings with the stakeholder, establishing representants for each team	Task 3: Share project managers' email and phone number	16/02/2016 5 minutes	
		Task 4: Have a meeting with Stuart Faulk for clarify questions	19/02/2016 1 hour	Using skype
	Analyzing the main idea of the document where the explanation of the software is found	Task 5: Understand the stakeholders' idea, described in the "concept of operations" document	17/02/2016 2 hours	
		Task 4: Have a meeting with Stuart Faulk for clarify questions	19/02/2016 1 hour	Using skype
	Defining and designing main parts of the architecture model, such as Schemas and definition of software practices	Task 8: Define the architecture of the system	25/02/2016 1 hour	
		Task 7: Define platforms, programming languages, and the		
		Task 15: Design Interfaces		
	Making a deep analysis behond the requirements stated in the document of concept of operations	Task 4: Have a meeting with Stuart Faulk for clarify questions	19/02/2016 1 hour	Using skype
		Task 6: Understand the stakeholders' tecnical requirements	19/02/2016 1 hour	Based on the document and the meeting with Stuart Faulk
	The requirements and limitations were identified during the meetings with Carlos Mario Zapata and Stuart Faulk	Task 1: Talk with the professor about the features of the software requested	4/02/2016 2 hours	A meeting was done during the class time
		Task 4: Have a meeting with Stuart Faulk for clarify questions	19/02/2016 1 hour	Using skype
		Task 5: Understand the stakeholders' idea, described in the "concept of operations"	17/02/2016 2 hours	

	Teams were defined according to the CVs sent by the students, and each team's mission was defined based on the "concept of operations" document	Task 2: Assign teams and roles for each of the students	12/02/2016 2 hours	According to the CVs sent by the students, the professor formed five teams and assigned roles
		Task 6: Understand the stakeholders' tecnical requirements	19/02/2016 1 hour	Based on the document and the meeting with Stuart Faulk
		Task 5: Understand the stakeholders' idea, described in the "concept of operations"	17/02/2016 2 hours	
	Diagrams were made, according to the description of the roles presented in the "concept of operations" document	Task 11: Elaborate team roles and responsabilities diagrams	20/02/2016 5 hours	
		Task 2: Assign teams and roles for each of the students	12/02/2016 2 hours	According to the CVs sent by the students, the professor formed five teams and assigned roles
		Task 12: Explain work methodology and each member role	16/02/2016 2 hours	During the class
	Stablishing the work principles, communication methodologies, communication tools and platforms for sharing files	Task 12: Explain work methodology and each member role	16/02/2016 2 hours	During the class
		Task 5: Understand the stakeholders' idea, described in the "concept of operations" document	17/02/2016 2 hours	
	Selecting tools and other useful practices for a good team work	Task 12: Explain work methodology and each member role	16/02/2016 2 hours	During the class
		Task 5: Understand the stakeholders' idea, described in the "concept of operations" document	17/02/2016 2 hours	