

# CS251 –Software Engineering I

Staff Memebers	Email
Dr Mohamed El Ramly	m.elramly@fci-cu.edu.eg
Eng Catherine Bedrossian	c.bedrossian@fci-cu.edu.eg
Eng Sara Tarek Ali Othman	s.tarek@fci-cu.edu.eg
Eng Mohamed Samir	m.samir@fci-cu.edu.eg
Eng Marwa Nabil	m.nabil@fci-cu.edu.eg
Eng Yomna Magdy Mohamed	yomna@fci-cu.edu.eg
Eng Desoky Abd El-qawy	d.abdelqawy@fci-cu.edu.eg
Eng Omar Khaled Ali Ragab	o.khaled@fci-cu.edu.eg
Eng Mohamed Elarnaoty	m.elarnaoty@fci-cu.edu.eg
Eng Mostafa Saad	m.saad@fci-cu.edu.eg





# **Software Requirements Specifications**

#### **Contents**

nstructions [To be removed]	3
Team	
Document Purpose and Audience	3
ntroduction	3
Software Purpose	3
Software Scope	
Definitions, acronyms, and abbreviations	Error! Bookmark not defined
Requirements	4
Functional Requirements	4
Non Functional Requirements	Error! Bookmark not defined
System Models	Error! Bookmark not defined
Use Case Model	Error! Bookmark not defined
Use Case Tables	Error! Bookmark not defined
Ownership Report	Error! Bookmark not defined
Policy Regarding Plagiarism:	8





## **Software Requirements Specifications**

#### **Instructions**[To be removed]

#### **Team**

ID	Name	Email	Mobile
20120106	Amal Khaled	amal_malak70@yahoo.com	01220858451
20120095	Asmaa Hassan	asmaa.h_elmoghazy@yahoo.com	01121065373
20120102	Alaa Hamdy	lo2a.alaa30@yahoo.com	01002308963
2012010147	Habiba Baioumy	habeeba_baioumy@hotmail.com	01151041057

#### **Document Purpose and Audience**

#### • Purpose:

• This document describes completely the system in terms of functional and nonfunctional requirements and it can be considered as a contract between client and developer.

#### Audience:

• The audience for this includes the client, the users, the project management, the developers who participate in the requirements, and the system designers.

#### Introduction

#### **Software Purpose**

- This software system aims to connect FCI researchers together
- Provide an easy access for research outcomes, share knowledge, and get answers for their questions





## **Software Requirements Specifications**

- The system introduce different researchers to each other.
- Researchers with similar interests can post and answer questions to each other, and can also send public questions for all members.
- Each researcher should be able to create research groups and add members to it

#### **Software Scope**

- This software system will be FCIResearch which aims to connect FCI researchers (doctors, teaching assistants, and students of research interests) together. This system will be designed toprovide an easy access for research outcomes, share knowledge, and get answers for their questions .by providingprofile foreach researcher with an overview about himself, and description for his research interests. Researcher can select research topics of his interest, and "FCIResearch" should tag each user according to his selected topics. Using these tags, the system should be able to introduce different researchers to each other. Researchers with similar interests can post and answer questions to each other, and can also send public questions for all members.
- •
- More specifically each researcher can share his research outcomes (publications, technical documents, presentations, code, etc.)
- The software will facilitate communication between doctors, teaching assistants, and students as Researchers can ask the author researcher for access to any of his resources/outcomes.
- •
- Each researcher should be able to create research groups and add members to it. Only group creator can delete it. "FCIResarch" should have a separate page/link for current existing research groups with its descriptions, and contacts for its members. Non-members can send a notification for group creator to join his group hence can either confirm or reject.

#### Requirements

#### **Functional Requirements**

- Sign up()
  - o Ask the user to enter his FCI E-mail and a password to make an account for him on the site.
- login ()





- Ask user for his login information like the E-mail and password to access his account on the site. ( He must be signed up first ).
- selectTopic()
  - The Researcher can select research topics of his interest
- tagUser()
  - The FCIResearch will tag every researcher (user) according to his selected topic.
- introduceResearchers ()
  - the system will introduce different researchers to each other using the tags in tagUser function
- postQuestion()
  - by using this function researchers with similar interests will be able to post questions to each other
- answeQuestion()
  - by using this function researchers with similar interests will be able to answer questions that were posted using postQuestion() function.
- publicQuestion()
  - by using this function researchers can send public questions to all members.
- shareOutcome()
  - by using this function researchers will be able to share his research outcome (publications, technical documents, presentations, code, etc)





- sendingNotificationAccess()
  - o In this function researcher ask the author for access to this resources and outcomes by sending him notifications describing the purpose of access to this resource.
- replyNotification()
  - In this function author can reply the notification that was sent by the user using the function sendingNotificationAccess().
- selectAction()
  - In this function the author select "will send mail" action, so he will later respond by a
    private mail for the resource requester that was sent by the user using the function
    sendingNotificationAccess().
- creatGroup()
  - o this function allows the researcher to create groups
- addMember()
  - This function allows the researcher to add members to the group he created using the function creatGroup().
- edit()
  - this function allows the member in the group to edit its name, description, members, and meeting times.
- delete()
  - o this function allow only group creator do delete the group.

#### CS251: Phase 1 - Team Name

Project: <FCIResearch>



- currentGroups()
  - o In this function there will be a link or page for existing research groups with its descriptions, and contacts for its members.
- sendGroupNotification ()
  - o This function allows Non-members to send a notification for group creator to join his group.
- replyGroupNotification()
  - In this function group creator can reply the notification that was sent by the user using the function sendNotificationToGroup().
- selectCreatorAction()
  - o In this function the creatorr select "will send mail" action, so he will later respond him by a private mail (may ask for meeting, request info, etc).
- confirmMember()
  - $\circ\quad$  this function is used by group creator to confirm member to join the group .
- rejectMember()
  - o this function is used by group creator to reject member from joining the group.
- Create Profile
  - o The user edit his profile by adding photo, job description, affiliations, overview about himself and description about his interests
- logout ()
  - this function is used by researcher when we aims to logout from his account and close it for that moment.





# **Software Requirements Specifications**

#### Policy Regarding Plagiarism:

Students have collective ownership and responsibility of their project. Any violation of academic honesty will have severe consequences and punishment for ALL team members.

Use case

• Sign up()

Name	Sign up	
Actors	doctors, teaching assistants, and students of	
	research interests	
Goals	Try to create account in the site to benefit from	
	knowledge on it and share questions	
D. Preconditions	User don't have account in it so he can't access	
	the side	
Summary	user creates account in the site to benefit from	
	knowledge on it and share questions	
Related use cases		
Steps	User actor System actor	
	User enter name and	
	password and this	
	linfo	
	System create	
	profile for user	
Postconditions	System will create profile for this user	

• login ()

Name	login	
Actors	doctors, teaching assistants, and students of	
	research interests	





# **Software Requirements Specifications**

Goals	user Access his profile in the site	
D. Preconditions	User have account in the site but can't use it and	
	can't access it	
Summary	User access his account and benefits from service in the site	
Related use cases	Sing up	
Steps	User actor User enter name and password  System opens his profile	
Postconditions	User can ask questions and share knowledge and communicate with other users	

#### selectTopic()

Name	Select topic
Actors	doctors, teaching assistants, and students of
	research interests
Goals	User choose topics which he interested in
D. Preconditions	User can't ask questions or share knowledge in
	his interested topics
Summary	User select topics which he interested in
Related use cases	Login, tag user
Steps	User actor System actor
	Login
	System open his
	profile
	User choose topic
	System put them
	in his interested
	and give him the
	right to see what





# **Software Requirements Specifications**

	user post about this topic and send him notifications	
Postconditions	User can ask questions in this topic and see others questions and documents	

#### Tag user

Name	Tag user	
Actors	System	
Goals	User get notification about topic which his	
	choose	
D. Preconditions	Other users post in this topic	
Summary	-Other users post in this topic and system tage	
	user to show others posts	
	- Users can see his questions, topic of other	
	users who interested also in this topic	
Related use cases		
Steps	User actor System actor	
	Login	
	System open l profile	his
	Post in this topic	
	Send tag about this post to other users interested in this topic	her
Postconditions	System send tag to user in see what others	
	shared in this toppic	

post Question()





# **Software Requirements Specifications**

Name	Post Question()
Actors Goals Preconditions Summary	doctors, teaching assistants, and students of research interests  Users get answer for their questions from other users in the same topic  No thing  User share questions with others in the same
Related use cases	topic Tog year
Steps Steps	Tag user  User actor System actor  Login System open his profile  User post question in some topic  Tag other users in this topic
Postconditions	Other user will be tagged on this question

answeQuestion()

Name	Answer Question
Actors	doctors, teaching assistants, and students of
	research interests
Goals	Users who know the answer of others questions
	will answer it
Preconditions	System tags him on other user question in the
	same topic
Summary	System tag user in questions in his interested
	topic and is this user know answer he will
	answer the question





# **Software Requirements Specifications**

Related use cases	login post Question() Tag user	
Steps	User actor Login	System actor
	Login	System open his profile
	User ask question	
		System tag users in the same topic
	User will answer the questions if he know it's nswer	
Postconditions	User who post the question will get answer for it	

#### • publicQuestion()

Name	Public question	
Actors	doctors, teaching assistants, and students of	
	research interests	
Goals	Make all users in the site see this question	
Preconditions	No thing	
Summary	User will let all people in the system show this	
	question	
Related use cases	Post question, login	
Steps	User actor System actor	
	login	
	System open his	
	profile	
	User ask question and	
	let all users see it	
	System will let	





# **Software Requirements Specifications**

		anyone see it and	
		tag people in the	
		same topic	
Postconditions	Ay one in the system car	n see this question	

## \* Delete()

Name	Delete		
Actors	group creator		
Goals	User want to delete a gr	oup that he created it	
Preconditions	There is a group and Each researcher able to create research groups and add members to it  Member in a group can edit its name, description, members, and meeting times		
Summary	The group creator will enter his name and the group that he want to delete and if he is actually the group creator the goup will deleted		- ·
Basic Path	1-the user enter the name group 2-th user enter his name 3-the system check that the group name is true and the user name is actually the name of group creator		
steps	User actor login  User ask to enter the name group	System actor  System open his profile  the system check that the group name is true	
Postcondition	The group will be deleted		1





# **Software Requirements Specifications**

#### \* Edit

Name	Edit		
Actors	Any member in the group	)	
Goals	Each member in the g can edit its name, des	•	and meeting times.
Preconditions	There is a group and no comembers, and meetin	- ·	dit name, description,
Summary	The user will enter his na	me and the group nam	ne and then he can edit
Basic Path	1-the user name enter the group name 2-the user name enter his name 3-check if the user name is actually member in the group		
steps	User actor  login  System open his profile  -the user name enter the group name  check if the user name is actually member in the group		
Postcondition	The member can edit the meeting times.	group's name, desc	ription, members, and





# **Software Requirements Specifications**

#### \* Add Member()

Name	Add Member		
Actors	Researcher and Non-member that he want to be added to the group		
Goals	allows the researcher to a	•	oup he created using the
	function creatGroup() by s		
Preconditions	The researcher created an	group and can't add	members to this group.
Summary	Non-members can ser		• .
	his group and group cr		
	"will send mail" action, mail	so ne will later resp	oond nim by a private
Basic Path	1- Non-members will se	end his name	
	2- Non-members will se	end the group name	e that he want to join
	3-the system will search for	or the group creator a	nd send him notification
Steps	User actor	System actor	
	login		
		System open his	
		profile	
	Non-members will		
	send the group		
	name that he want		
	to join		
		the system will	
		search for the	
		group creator and	
		send him	
	If the constant of	notification	
Postcondition	If the group creator replay the Non-member will be added to the group and the member will increase one.		
	group and the member	will increase one.	





# **Software Requirements Specifications**

## \* Create Group

Name			
Ivallie	Create Group		
Actors	researcher		
Goals	Enable the researcher to	a croato a group	
Goals	Enable the researcher to	o create a group	
Preconditions	There is no page that th	e researcher want to cre	eate
Summary	The creator will enter th	ne group name and then	the group will be created
Basic Path	1-the researcher will en	tor his name	
Basic Path	2- the researcher will er		
	3- check if this name of		or not
		In case (3)if the name of the group not found then the group will be created and the researcher name will be the group creator	
		0	•
steps	User actor	System actor	
	login		
		System open his	
		profile	
	the researcher will		
	enter the page name		
		- check if this	
		name of the page	
		is found before or	
		not if the name of the	
		group not found	
		then the group will	
		be created and the	
		researcher name	
		will be the group	
		creator	





# **Software Requirements Specifications**

Postcondition	A new group will be created and his creator is the researcher

#### \*- Send notification access

Name	Send notification	n access	
Actors	Researcher and author		
Goals	researcher ask the author for access to this resources and outcomes by sending him notifications describing the purpose of access to this resource		
Preconditions	The res	earcher can't access to	o the author's resources
Summary	The researcher will send the his resources	he name of author tha	at he want to access to
Basic Path		<ul><li>1- The researcher enter the name of the author</li><li>2-search if this name is found or not</li></ul>	
Alternative	In case(2) if the author's n	In case(2) if the author's name that the researcher enter is found the	
Paths	system will send request t	o this author	1
	User actor	System actor	
	login		
	System open his profile		
	- The researcher enter the name of the author		
		- search if this	
		name is found or	
		not ) if the	
		author's name	
		that the researcher enter is	
		researcher enter is	





# **Software Requirements Specifications**

		found the system will send request to this author	
Postcondition	If the author Reply Notification the researcher can access to this resources other he can't		

## \* Reply Notification()

Name	Reply Notification	
Actors	The author and the researcher	
Goals	author can reply the notification that was sent by the user using the function send notification access	
Preconditions	The researcher can't access the author's resourses	
Summary	From the function Send notification access the author will have two choice this function is one of those and the researcher by this function can access the author's resources	
Basic Path	1-from function send notification access the research name will send To this function 2- from function send notification access the research mail will send 3-the author will send word yes to the system	
steps	In case(3) when the system receive word yes then it send notification to the researcher  User actor System actor login System open his profile from function send notification access the	





# **Software Requirements Specifications**

		research name will send To this function and mail	
	the author will send word yes to the system	when the system receive word yes then it send notification to the researcher	
Postcondition	The researcher can acce	ss the author's resou	rces

## \* Share outcome()

Name	Share outcome
Actors	doctors, teaching assistants, and students of research interests
Goals	researchers will be able to share his research outcome
D. Preconditions	User can't share knowledge in his research outcome
Summary	User share his research outcome
Related use cases	Login, tag user
Steps	User actor System actor System open his profile
	User his research

CS251: Phase 1 - Team Name

Project: <FCIResearch>



# **Software Requirements Specifications**

	outcome		
		System share this to ather researcher	
Postconditions	User can see researcher's	s research outcom	

## **Current Groups:**

Name	Current Groups	
Actors	Server	
Goals	Users use the can use the researches and contact with the authors	
Preconditions	There is members logged in to put their work on the page	
Summary	The system will tag each user according to his selected topics.	
Related use cases	Log in	
Steps	User actor System actor Login	





# **Software Requirements Specifications**

		System open his profile
	User choose the topic	
		Tag user in this interest
Postconditions	Users of the same interest topic and share them	st can access the the

## **Send Group Notification:**

Name	Send Group Notification
Actors	Non-group members
Goals	Non group members ask to be members an be able to share documents with the members and see their jobs  can edit the group name, description, members, and meeting times
Preconditions	The user is logged in





Summary		send a notification to the
	creator to join the group	
Related use cases	Log in	
Steps	User actor	System actor
	Login	
		System open his profile
	User select droup to ask to join	
	Send notification to the creator	
		System view the notification to the creator
Postconditions	The creator either confine notification	rm or reject the





Name	Reply Group Notificati	on	
Actors	Group granter		
Actors	Group creator		
Goals	In this function group creator can reply the notification that was sent by the user using the function sendNotificationToGroup.		
Preconditions	Non-group member sent a notification to the group to creator to join the group		
Summary	Group creator either ac	ecept notification or re	eject it
steps	User actor	System actor	
	Login		
		System open his profile	
	Creator see the notification on the group page		
	Send notification to the non group member to accept or reject		
		System send the reply from the	



CS251: Phase 1 - Team Name

Project: <FCIResearch>

# **Software Requirements Specifications**

	Or creator select  "will send mail" action, so he will later respond him by a private mail	creator to the non group member	
Related use cases	Logged in , Send Group	Notification	
Postcondition	The non group member accepted or rejected	will recieve the reply	y of his notification by

#### **Select Action Creator:**

Name	Select Action Creator
Actors	Group creator
Goals	In this function the creator select "will send mail" action, so he will later respond him by a private mail (may ask for meeting, request info,





	etc).	
Preconditions	The greater is logged in Non group member	
Preconditions	The creator is logged in , Non-group member sent a notification to the group to creator to join the group	
Summary	The creator choose "will send mail" to reply the notification of joinig the group	
Related use cases	Log in, , Send Group Notification, Reply Group Notification	
Steps	User actor System actor	
	Login	
	System open his profile	
	creator select "will send mail" action, so	
	he will later respond	
	him by a private mail when he see the	
	notification	
	Write mail with what he will do with the member	
	System send the mail to the non group member	
Postconditions	The non group member will receive the mail	





# **Software Requirements Specifications**

#### **Confirm Member:**

Name	Confirm Member	
Actors	Group creator	
Goals	In this function group creator can reply the notification that was sent by the user using the function sendNotificationToGroup with confirming	
Preconditions	The creator is logged in , Non-group member sent a notification to the group to creator to join the group	
Summary	The group creator confirm the notification to join the group	
Related use cases	Log in, , Send Group Notification, Reply Group Notification	
Steps	User actor  Login  System actor  System open his profile	
	Creator open the link	





# **Software Requirements Specifications**

	of the group and see the notification  Creator accept the notification by press on accept button	
		System send the reply to the non group member and enable him to share the group and access it and make him a member on the member list
Postconditions	The non member will be in the group list	a member and be listed

## **Reject Member**

Name	Reject Member
Actors	Group creator
Goals	In this function group creator can reply the notification that was sent by the user using the function sendNotificationToGroup with rejection
Preconditions	The creator is logged in , Non-group member sent a notification to the group to creator to join





# **Software Requirements Specifications**

	the group		
Summary	The group creator confirm the notification to join the group		
Related use cases	Log in, , Send Group Notification, Reply Group Notification		
Steps	User actor  Login  System actor  System open his profile  Creator open the link of the group and see the notification  Creator reject the notification by press on reject button  System send the reply to the non group member		
Postconditions	The non member will not be a member		

## Log Out:

Name	Log out
Actors	Any user of the group





# **Software Requirements Specifications**

Goals	this function is used by researcher when we aims to logout from his account and close it for that moment.
Preconditions	The user is logged in
Summary	The user can log out and make the site off for a while until he log in again
Related use cases	Log in
Steps	User actor  Login  System actor  System open his profile  The user press log out
	System out from his page and return to the page to enter name and password if he want to log in again

## **Edit Profile:**

Name	Edit Profile
Actors	Non FCIResearch members





	1		
Goals	user edit his profile by adding photo, job description,		
	affiliatio	ns, overview about himself and description about	
	his intere	ests	
2	GI I	1. 707	
Preconditions	Check to	Check to be FCI member (Student, Techear,)	
Summary	Editing t	Editing the user profile	
Related use cases	Log in	Log in	
Steps	User	System actor	
	actor		
	Login		
		System open his profile	
	Select		
	update		
	profile		
		System show details of	
		profile(photo,description,affiliations,secription	
		about his interest) and enable the user to	
		update them	
	User	System save the updates	
	selects		
	the		
	part		
	for		
	update		
	and		
	update		
	it and		

CS251: Phase 1 - Team Name

Project: <FCIResearch>



## **Software Requirements Specifications**

press update	

## **Non functionality**

## \*security →

- -the user should enter the right e-mail and password to access his profile .
- -when user is sign up make sure that the user name and the e-mail Not repeated before.
- -make sure that Non-member in the group can

not edit its name, description, members, and meeting times.

-the password should be greater than 8 character

## \*performance →

- -the user can't see the topics that he is not interested to it or it's topics
- -the system should can all members in fci include (doctors, teaching assistants, and students of research interests).
- -make sure that Each researcher can put his

CS251: Phase 1 - Team Name

Project: <FCIResearch>



## **Software Requirements Specifications**

name, photo, job description, affiliations, an overview about himself, and description for his research interests.

-make sure the system is making tag for each user according to his selected topics only.