# Cairo University Faculty of Computers and Information



# Software Engineering I

# "Is It Lost?"

Phase I - Software Requirements Specifications

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Project: "Is It Lost?"

## **Software Requirements Specifications**

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### **Software Requirements Specifications**

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

- This document acts as a preliminary specification of the project using the highest quality techniques to bring out the basic functionalities and a detailed overview of the of its preface and how much it will be useful and easy to use this project software.
- This document is written in a way that is easily to be understood by the commonalty and any nontechnical person- (as the Project Manager)- having an interest in this project or have a stake in the completeness of this project.

#### Introduction

#### **Software Purpose**

To Provide a simple and straightforward software application named "Is It Lost?" that is
easy to be used by the populace and the commonalty. our main objective is to proffer a
secured path to communicate between the passerby who found the lost thing and the loser,
so they can meet and the later get his lost things back.

#### **Software Scope**

- "Is It Lost" offers you a milieu to solve the problem of finding lost things whereas you can't communicate with the one who's is the owner of this lost thing.
- It's a front-end software as it provides the ability for any passerby to post a photo of the thing he finds and to the victim to search for his missing.
- · Then it acts as a middleman between any two persons using this software online.
- It facilitates the steps one can do to search for his missing thing as one can search by (name, category, city, date, etc...) and easily press communicate.

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### **Software Requirements Specifications**

#### Definitions, acronyms, and abbreviations

Word	Definition	
Victim	The person who lost something	
Report Deceitful	The process that the system sees if one user has many	
	reports, the system will mark him as a deceptive.	
Check Periodically	The process of checking that the person has found	
	his/her lost things.	

#### Requirements

#### **Functional Requirements**

#### 1. Person

- 1.1Person can register or login by entering his account information to start the application.
- 1.2 Person can login as passerby who can post photos or as a victim.
- 1.3 Person can suggest enhancements for the developers of the software to provide more secure treatments.
- 1.4 Person either passerby or victim can report a one who that he is deceitful in order to be removed from the system.

#### 2. Passerby

- 2.1 The passerby can find by accident something that's thought to be lost in the way so he must report it.
- 2.2 The passerby can manage posts by adding a new post if he finds any something that is thought to be lost from someone and can edit his post.
- 2.3 The passerby can delete the post after the person gets his/her things lost back.
- 2.4 The passerby who adding new posts must include a photo clarifying the thing he found and adding some useful information to be used as a keyword in searching.
- 2.5 The passerby chooses the category of the missing object to facilitate other people search for things.
- 2.6 The passerby can communicate with the victim and then decide on a place and time to meet each other.

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- 2.7 The passerby can find two persons claiming they own the stolen thing, so he must verify the ownership of the right person.
- 2.8 The passerby starts to ask questions to the one who claims that he is the owner and waiting for his answers.
- 2.9 The passerby can enter the system as a victim rather than being a passerby.

#### 3. Victim

- 3.1 The victim can enter the software and start viewing the posts.
- 3.2 The victim can view posts categorized by what the option he chooses.
- 3.3 The victim checks periodically if anyone has posted his missing object.
- 3.4 The Victim can search posts by city, by date, by name, etc.
- 3.5 The Victim might find his lost thing in the Software Application "Is It Lost?"
- 3.6 The Victim starts to communicate with the passerby who posts the post and decide on a place and time to meet.
- 3.7 The Victim might be forced to answer some questions about the stolen thing in order to maintain security issues.

#### **Non-Functional Requirements**

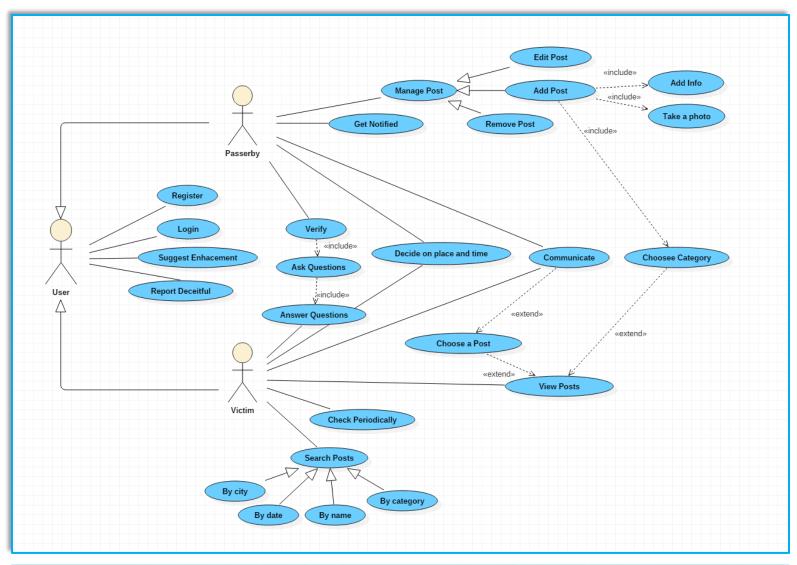
	Details
Response Time	All operations that need system response should be done in less than 2s.
Scalability	System might support up to 10,000 posts and the old ones are removed dynamically to allow it to work under high pressure without being breaking down.
Security	System should provide a secure way to communicate between the two parties and including make sure that this is the right owner.
Adaptability	System must have to deal with any type of applications as sharing post on social media.
Maintainability	System should have the ability to allow any modifications to it named as enhancements provided by the users.
Documentation	An aid documents that helps new users to find their way on using the software.

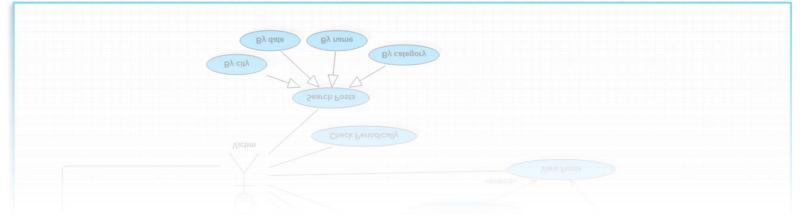
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### **Software Requirements Specifications**

#### **System Models**

**Use Case Model** 





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## **Software Requirements Specifications**

#### **Use Case Tables**

Use Case ID:	USER_REGISTER_IN	
Use Case Name:	Register	
Actors:	User	
Pre-conditions:	User initiates the registration process.	
Post-conditions:	User successfully registered i	nto the System gaining privilege either
	as a Passerby or as a Victim.	
Flow of events:	User Action	System Action
	1- User enters required inputs as name, address, email, telephone and accepts the rules.	
		2- System Verify that all entry fields are completed in conformity with requirements.
		3- System asks User to start logging into the app and choose login type to be passerby or victim.
	5- User login into the system and selects the desired account type.	
		6- System registers User's data after the first successfully login into the system.
Exceptions:	User Action	System Action
	1- User enters invalid information doesn't match requirements.	
		2- System prompts the user to re-enter the required data in a valid form.
Includes:	-	
Notes & Issues:	-	

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Use Case ID:	USER_SUGGEST_ENHANCEMENT	USER_SUGGEST_ENHANCEMENT	
Use Case Name:	Suggest Enhancement		
Actors:	User		
Pre-conditions:	User is logged successfully into	the System.	
Post-	User has already added his recom	mendations to enhance the system.	
conditions:			
Flow of events:	User Action System Action		
	1- User clicks the button		
	Suggest Enhancement.		
		2- System opens a page for writing any recommendations that is thought to help system having more ease of use and a secure channel.	
	3- User clicks on send to transmit these recommendations into the system.		
		4- System reserves these letters in a database and periodically send them to the software team developers.	
Exceptions:	-	-	
Includes:	-		
Notes & Issues:	-		

Project: "Is It Lost?"

Use Case ID:	USER_REPORT_DECEITFUL	
Use Case Name:	Deceitful	
Actors:	User	
Pre-conditions:	User is logged successfully into the System.	
Post-conditions:	User has successfully reported	someone that might be doing fraud
	works.	
Flow of events:	User Action	System Action
	1- User clicks on report deceitful.	
		2- System shows a list of all users.
	3- User chooses the one who	
	is might be a deceitful.	
	4- User starts writing why he think that.	
		5- System checks if the reports about this person have reached a fixed number.
		6- If so, then system removes his account from the system database and blocking any new accounts done by this email or this user-ID.
Exceptions:	-	-
Includes:	-	
Notes & Issues:	-	

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Use Case ID:	USER_GET_NOTIFIED	
Use Case Name:	Gets notification	
Actors:	Passerby	
Pre-conditions:	User is logged successfully in	to the System and have posted
	previously on the system.	
Post-conditions:	The Notification has been seen	by the passerby.
Flow of events:	User Action	System Action
	1- User gets a message that someone wants to communicate with.	
	2- User clicks on the new msg and open it.	
		3- System starts to present the new msg.
	4- User starts to communicate	
	with this user if he wants.	
Exceptions:	-	-
Includes:	-	
Notes & Issues:	Someone wants to chat with me.	

Project: "Is It Lost?"

Use Case ID:	PASSERBY_MANAGE_POSTS	
Use Case Name:	Manage Posts	
Actors:	Passerby	
Pre-conditions:	Passerby is logged into the sy	stem.
	Passerby found something lost	or have posts already posted.
Post-conditions:	Depends on the inherited use c	ase will be chosen.
Flow of events:	User Action	System Action
		<ol> <li>System prompts the User to choose one of the following alternatives:</li> <li>Add a new post</li> <li>Edit an existing post</li> <li>Delete a post</li> </ol>
	2- User selects an option.	
		3- System proceeds based on the User's selection.
Exceptions:	-	-
Includes:	-	
Notes & Issues:	-	

Project: "Is It Lost?"

Use Case ID:	PASSERBY_MANAGE_POSTS_EDIT	
Use Case Name:	Edit Post	
Actors:	Inherited from Manage Posts use case.	
Pre-conditions:	Inherited from Manage Posts use	e case.
Post-conditions:	The post is successfully edited	d as the user wants.
Flow of events:	User Action	System Action
	1- User chooses the post he wants to edit.	
		2- System shows him options to edit the post.
	3- User starts to rewrite the information combined with the system or includes more photos.	
	4- User confirms the edit.	
		5- System saves the edit and shows the users the new post after have been edited.
Exceptions:	-	-
Includes:	-	
Notes & Issues:	-	

Project: "Is It Lost?"

Use Case ID:	PASSERBY_MANAGE_POSTS_ADD	
Use Case Name:	Add Post	
Actors:	Inherited from Manage Posts use case.	
Pre-conditions:	Inherited from Manage Posts us	e case.
Post-conditions:	A new post has been published I	by this user.
Flow of events:	User Action	System Action
	1- User clicks on add a new post button	
	<pre><execute a<="" add="" and="" case="" events="" flow="" in="" included="" info="" of="" take="" th="" the=""></execute></pre>	
		3- System accepts the post.
	4- System starts showing it with the list of posts.	
	5- User gets out and return to be able to manage any other post.	
Exceptions:	-	-
Includes:	-	
Notes & Issues:	-	

Project: "Is It Lost?"

Use Case ID:	PASSERBY_MANAGE_POSTS_EDIT	
Use Case Name:	Edit Post	
Actors:	Inherited from Manage Posts us	e case.
Pre-conditions:	Inherited from Manage Posts us	e case.
Post-conditions:	An existing post will be edited more information.	d by either include more photos or add
Flow of events:	User Action	System Action
	1- User clicks on edit post button.	
		2- System opens the edit form of the selected post.
	3- User adds more information either photos or illustrating details.	
		4- System accepts the new edit and shows the post after have been edited.
Exceptions:	-	-
Includes:	-	
Notes & Issues:	-	

Project: "Is It Lost?"

Use Case ID:	PASSERBY_MANAGE_POSTS_REMOVE		
Use Case Name:	Remove Post		
Actors:	Inherited from Manage Posts us	e case.	
Pre-conditions:	Inherited from Manage Posts us	Inherited from Manage Posts use case.	
Post-conditions:	The post selected will be removed from the list of the posts.		
Flow of events:	User Action	System Action	
	1- User clicks the remove button on the selected post.		
		2- System removes the selected post	
		from the list of the posts.	
Exceptions:	-	-	
Includes:	-		
Notes & Issues:	-		

Project: "Is It Lost?"

Use Case ID:	PASSERBY_MANAGE_POSTS_ADD_INFO	
Use Case Name:	Add Info	
Actors:	Passerby	
Pre-conditions:	User already clicked on Add pos	st button.
Post-conditions:	User has added illustrated des	criptions to the object he found.
Flow of events:	User Action	System Action
	1- User adds more information and keywords to let the post be easily found by the victim.	
		2- System adds the information if they are on the system's standard criteria.
Exceptions:	User Action	System Action
	1- If the user enters information that's conflict with the system criteria.	
		2- System refuse to add this information and gets the control back to the user to edit his info he entered.
Includes:	-	
Notes & Issues:	-	

Project: "Is It Lost?"

Use Case ID:	PASSERBY_MANAGE_POSTS_TAKE_PHO	то
Use Case Name:	Take a photo	
Actors:	Passerby	
Pre-conditions:	User already clicked on Add po	st button.
Post-conditions:	The selected post is enforced	with photos detailing it.
Flow of events:	User Action System Action	
	1- User takes a photo of the something that is lost or post a photo which is similar to that thing.	
	2- User starts to add these photos to the post.	
	photos to the post.	3- System takes the photos and upload it to the post.
Exceptions:	User Action	System Action
	1- If the user enters information that's conflict with the system criteria.	
		2- System refuse to add this information and gets the control back to the user to edit his info he entered.
Includes:	-	1
Notes & Issues:	-	

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Use Case ID:	PASSERBY_VICTIM_VERIFY		
Use Case Name:	Verify		
Actors:	Passerby		
	Victim		
Pre-conditions:	Two users claimed that		-
Post-conditions:	_	ich one d	of them is the right owner of the
	stolen object.		
Flow of events:	User Action		System Action
	they own the stolen ob	laiming ject.	
	<execute e<="" flow="" of="" th="" the=""><th>events ir</th><th>n the included Ask and Answer Questions cases&gt;</th></execute>	events ir	n the included Ask and Answer Questions cases>
			3- System reports the other person as deceitful if user suggests that.
	4- passerby user starts	s to	
	decide on a place and <sup>-</sup>		
	meet with the right pe	rson.	
Exceptions:	User Action		System Action
	1- If one of the ones of claim the ownership did answer the questions.	-	
	<some exceptions="" of<="" th=""><th>can be ha</th><th>appened in the Ask Questions case &gt;</th></some>	can be ha	appened in the Ask Questions case >
			2- System gives him a deadline for answering the questions
Includes:	Ask Questions		
	Answer Questions		
Notes & Issues:	-		

Project: "Is It Lost?"

Use Case ID:	PASSERBY _ASK_QUESTIONS	
Use Case Name:	Verify	
Actors:	Passerby	
Pre-conditions:	Two users claimed that they ow	n this stolen object.
Post-conditions:	The Passerby assure which one	of them is the right owner of the
	stolen object.	
Flow of events:	User Action	System Action
	1- The User have two people communicated him claiming they own the stolen object.	
	<execute events="" flow="" i<="" of="" th="" the=""><th>n the included Ask and Answer Questions cases&gt;</th></execute>	n the included Ask and Answer Questions cases>
		3- System reports the other person as deceitful if user suggests that.
	4- passerby user starts to decide on a place and time to meet with the right person.	
Exceptions:	User Action	System Action
	1- If one of the ones who claim the ownership didn't	
	answer the questions.	l appened in the Ask Questions case >
	Come exceptions can be in	2- System gives him a deadline for
		answering the questions
Includes:	Answer Questions use case.	0 1
Notes & Issues:	-	

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Use Case ID:	VICTIM_ANSWER_QUESTIONS	
Use Case Name:	Answer Questions	
Actors:	Victim	
Pre-conditions:	The victim should be included :	
	The victim must be logged in be	efore start answering questions, but he
	can see the post.	
Post-conditions:		things are right, the passerby will
	communicate with the victim to	meet him to give him his/her things.
Flow of events:	User Action	System Action
	1- User answer on the	
	passerby's questions.	
		2- System asks passerby to check the
		user's answers.
	3- If the answers are right,	
	passerby and the victim start	
	to decide for a meeting.	
Exceptions:	User Action	System Action
	1- User Enter wrong answers.	
	<some be="" can="" exceptions="" ha<="" th=""><th>appened in the Ask Questions case &gt;</th></some>	appened in the Ask Questions case >
		2- System will observe this user.
		3- If this user claims wrong many
		times the system will say that this
		user is impostor.
Includes:	-	
Notes & Issues:	-	

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Use Case ID:	VICTIM_CHECK_PERIODICALLY	
Use Case Name:	Check Periodically	
Actors:	Victim	
Pre-conditions:	The victim has lost things.	
Post-conditions:	User will find a post that's m	atch what he is searching for.
Flow of events:	User Action	System Action
	1- User open the list of all posts.	
		2- System search about lost things depend on user's data (category, name and so on).
		3- System will respond to user that he found something related or identical to his post or not.
		4- If the lost thing found the system will ask the user to communicate to passerby or answer his question first.
Exceptions:	User Action	System Action
	1- User didn't found his lost things.	
		2- System will tell the user that if it finds a post about this thing will tell him immediately.
Includes:	Answer Questions use case.	
Notes & Issues:	-	

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Use Case ID:	VICTIM_PASSWERBY_COMMUNICATE	
Use Case Name:	communicate	
Actors:	Victim	
	Passerby	
Pre-conditions:	The victim has found what's is	lost in someone's post.
Post-conditions:	A secure channel between the t	wo parties have been instantiated.
Flow of events:	User Action System Action	
	1- the victim sends a msg to the desired passerby.	
		2- System notifies the passerby user of this new notification using get notified use case.
		3- System provides a secured direct channel between them.
	4- The two parties start to	
	chat with each other.	
Exceptions:	-	
Includes:	-	
Notes & Issues:	-	

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Use Case ID:	VICTIM_PASSWERBY_DECIDE_ON_PLAGE	VICTIM_PASSWERBY_DECIDE_ON_PLACE_TIME	
Use Case Name:	Decide Place & time		
Actors:	Victim		
	Passerby		
Pre-conditions:	The victim is communicating al	ready is with the passerby.	
	The passerby has assured that	he is the right owner.	
Post-conditions:	Date and time have been chosen	•	
Flow of events:	User Action System Action		
	<pre>1- the two users choose a date and time that she can meet in.</pre>		
		2- System saves the information as a reminder to let them be notified as this time.	
Exceptions:	-		
Includes:	-		
Notes & Issues:	-		

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Use Case ID:	VICTIM_PASSERBY_CHOOSE_CATEGORY	VICTIM_PASSERBY_CHOOSE_CATEGORY	
Use Case Name:	Choose category		
Actors:	Victim		
	Passerby		
Pre-conditions:	Being a member of the applicat	ion.	
	The victim wants to filter posts using the categories or the passerby		
		o add it on the post information.	
Post-conditions:	The category is chosen.		
Flow of events:	User Action	System Action	
	1- The user clicks on choose category button.		
	2- From the Passerby side: he		
	will choose category when		
	sharing a post.		
		3- System will show this post for	
		victim who search about items of this	
		category.	
	2- From the victim side: he		
	may choose category when search.		
	Scar en.	3- System display posts for user	
		depending on the category s/he	
		entered.	
Exceptions:	User Action	System Action	
	1- User can't determine a		
	category for the lost things.		
	2- User Suggests and		
	enhancement to the system.		
		3- System transforms his enhancements	
		to the Suggest Enhancement use case.	
Includes:	-		
Notes & Issues:	-		

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Use Case ID:	VICTIM_VIEW_POSTS	
Use Case Name:	View Posts	
Actors:	Victim	
Pre-conditions:	The software is opened to the	main page.
Post-conditions:	System shows posts about lost	things.
Flow of events:	User Action	System Action
	1- User open the application.	
		2- System display posts for the user.
		3- System asks user to login or
		register if he isn't a member.
	4- User login or register if	
	he/she wants.	
Exceptions:	-	
Includes:	-	
Notes & Issues:	-	

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Use Case ID:	VICTIM_CHOOSE_A_POST	
Use Case Name:	Choose a Post	
Actors:	Victim	
Pre-conditions:	The software is opened to the li	ist of the posts.
Post- conditions:	Communication between the two pasearches for.	arties is started if it's what he
Flow of events:	User Action	System Action
	1- The user scrolls the posts.	
	2- The user finds what he is searching for and enters to get into the post details.	2- System opens a page for writing any recommendations that is thought to help system having more ease of use and a secure channel.
		3- System starts to show the details of the selected post.
	4- User may found this post as his target and starts a communication.	
		4- System asks user to login if or register as victim if he isn't a member of the software.
		5- System the starts the communication between the two parties.
Exceptions:	-	-
Includes:	-	•
Notes & Issues:	-	

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Use Case ID:	VICTIM_SEARCH_POSTS	
Use Case Name:	Search Posts	
Actors:	Victim	
Pre-conditions:	Being a member of the applicat	ion.
Post-conditions:	System display search results	depending on the entered data.
Flow of events:	User Action	System Action
	1- User searches using the search field.	
	<execute events="" flow="" in<="" of="" th="" the=""><th>n the included Ask and Answer Questions cases&gt;</th></execute>	n the included Ask and Answer Questions cases>
		3- System display posts for user depending on his search
Exceptions.	-	
Includes:	-	
Notes & Issues:	-	

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Use Case ID:	VICTIM_SEARCH_POSTS_BY_DATE		
Use Case Name:	Search Posts by Date		
Actors:	Victim		
Pre-conditions:	Inherited from the Search Post use case.		
Post-conditions:	Inherited from the Search Post	use case.	
Flow of events:	User Action	System Action	
	1- User selects the date.		
		2- System display posts for user depending on the date s/he entered.	
Exceptions.	-		
Includes:	-		
Notes & Issues:	_		

Use Case ID:	VICTIM_SEARCH_POSTS_BY_NAME			
Use Case Name:	Search Posts by Name			
Actors:	Victim			
Pre-conditions:	Inherited from the Search Post use case.			
Post-conditions:	Inherited from the Search Post	use case.		
Flow of events:	User Action	System Action		
	1- User Enters the name.			
		2- System display posts for user depending on the name s/he entered.		
Exceptions.	-			
Includes:	-			
Notes & Issues:	-			

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Use Case ID:	VICTIM_SEARCH_POSTS_BY_CATEGORY				
Use Case Name:	Search Posts by Category				
Actors:	Victim				
Pre-conditions:	Inherited from the Search Post use case.				
Post-conditions:	Inherited from the Search Post use case.				
Flow of events:	User Action		System A	ction	
	1- User searches by category using the search field.				
		2- System	display	posts for	user
		depending entered.	on the	category	s/he
Exceptions.	-				
Includes:	-				
Notes & Issues:	-				

Use Case ID:	VICTIM_SEARCH_POSTS_BY_CITY		
Use Case Name:	Search Posts by City		
Actors:	Victim		
Pre-conditions:	Inherited from the Search Post use case.		
Post-conditions:	Inherited from the Search Post use case.		
Flow of events:	User Action System Action		
	1- User searches by city		
	using the search field.		
	2- System display posts for user		
	depending on the city s/he entered.		
Exceptions.	-		
Includes:	-		
Notes & Issues:	-		