# **CA3 Software Engineering and Testing**

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#### Mapping functional spec:

The mapping functional spec is what action each actor can do and interact with the system.

In the register function user can register as a Author or Reader. They need all the attributes they can either register or clear.

In the login function the user can login as a Author or Reader. They need all the attributes to login.

In the verify function only Author and Admin can access. Author needs to have all the attributes to verify His/Her's account.

In the review function Book, Author, Reader and review can use the function. In the review section reader can see all the attributes from books and they are allowed to submit their review or clear their input.

In the Searching function Author and Reader and can use the function. In the search section reader can see all the attributes from books and Author and they are allowed to submit their search or clear their input.

In the publish function the author can add new data(book, survey, events and announcement) to database via system.

# (a)

System 1	Objects	Attributes	Methods Discovered :
Name:	Discovered :	Discovered :	
Register	-Author -Reader	-Username -Password -Name -DOB -Phone_Num -Email -Link (for verify)	-Register(submit) -Back -Clear (input)
System 2	Objects	Attributes	Methods Discovered :
Name:	Discovered :	Discovered :	
Login	-Reader -Author	-Username -Password	- Login - Reset - Forgot_Password

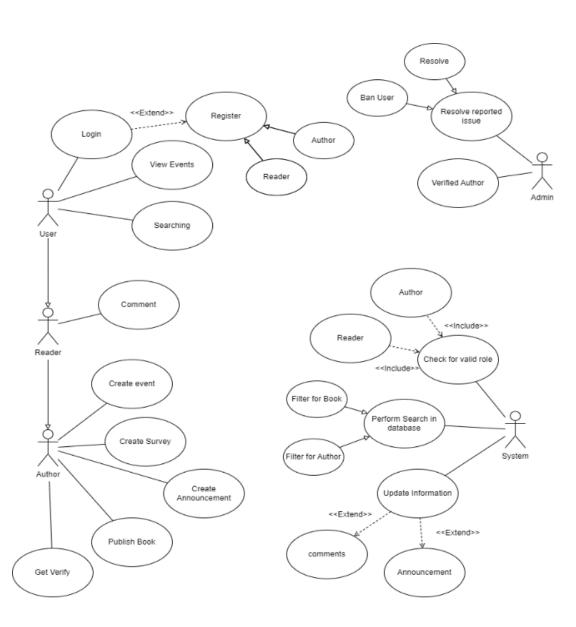
System 3 Name:	Objects Discovered :	Attributes Discovered :	Methods Discovered :
Verify	-Author -Admin	-Name -Link -Phone_Num -Email -Verify_Status	-Sent Verification -Verified -Decline

System 4	Objects	Attributes	Methods Discovered :
Name:	Discovered :	Discovered :	
Reviewing	-Book -Author -Reader -Review	-Date -Time -Book Title -ISBN -UserName -Comment	-Publish Comment -Clear(Clear input)
System 5	Objects	Attributes	Methods Discovered :
Name:	Discovered :	Discovered :	
Searching	-Book -Author	-Book Title -ISBN -Genre -AuthorName -Description	-Search_DB -Validation -Return Result -Return Invalid

System 6 Name:	Objects Discovered :	Attributes Discovered :	Methods Discovered :
Publish	Survey Event Announcement	-Heading -Details -Information (Announcment)  -Date -Time -AuthorName -Location (Event) -Choices (Survey)	Publish Edit Clear Delete

#### Use case:

The Use Case is what action each actor can do and interact with the system. And the relationship they have with each other. User, Author and Reader can register or login they can also search reader can write a review and Author can publish surveys, events and announcements and admin can verify Author. The System can perform any action from user e.g. search and publish.



#### **Class diagram**:

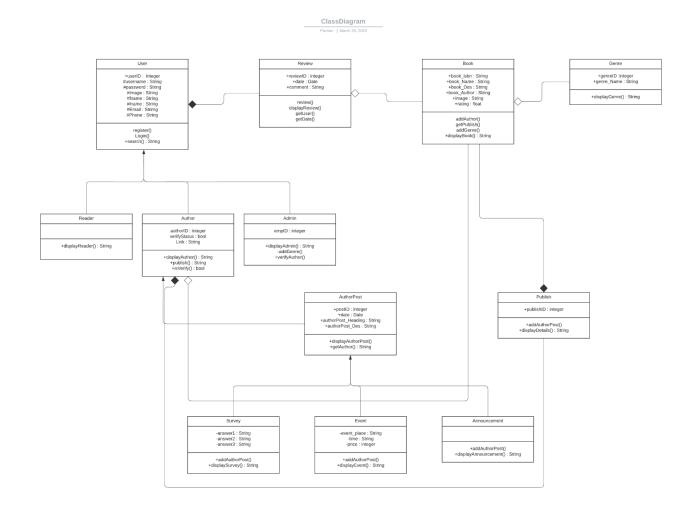
To identify the details of class/actor and identify the actions that they can be allowed to do.

User contains specialization of Reader, Author, Admin, each class also contain specific attributes.

Survey events Announcement is a genelization of the AuthorPost. These classes also have their specific attributes.

Book has genre, use it as aggregation.

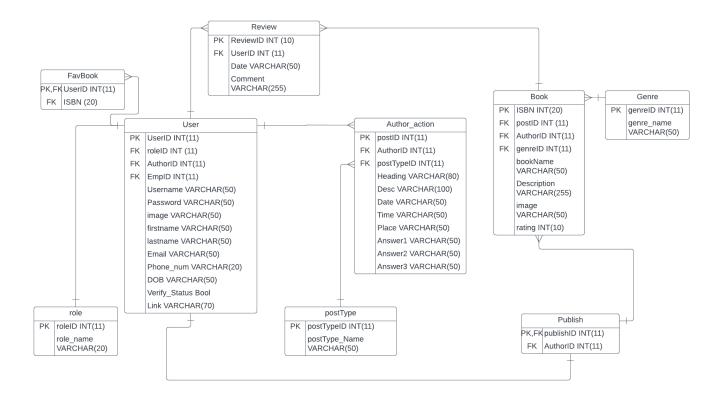
Publish use both author and book and composition. In order to be perform, created and add into database.



#### Er diagram:

Specified relationship of each class and attributes contains in each class with out repeating any data. And visualize the link of using one data to another. It also Identify the multiplicity of each class.

For example: Review needed User ID from user table to specify who is writing the review.



Activity diagram: sample process steps of actions that a user do from start to finish.

### User Activity

