

# Software requirement specification document for project EGSAC

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## **1 Introduction**

### **1.1 Purpose of this document**

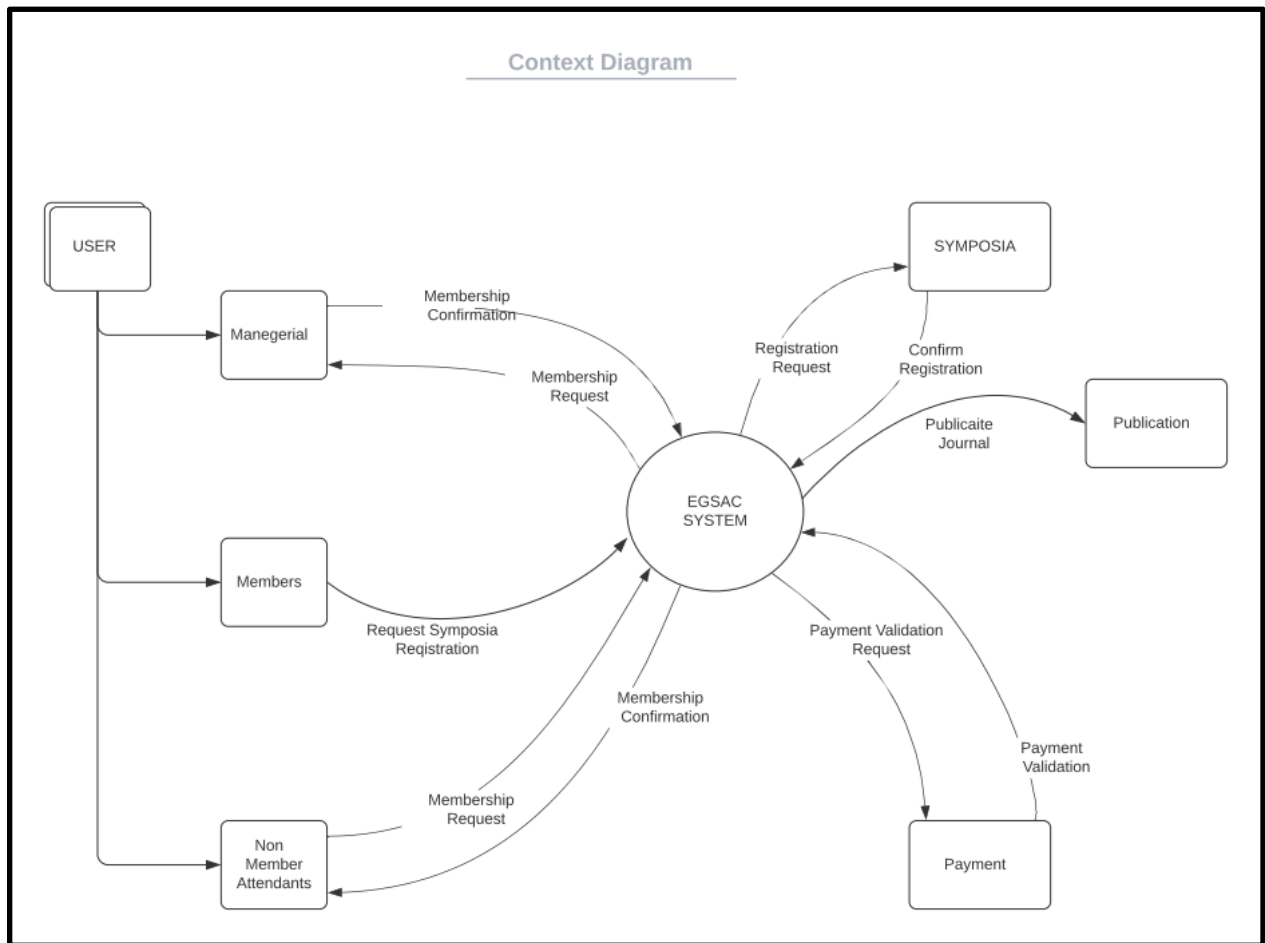
This document will mainly focus on serving the Egyptian Society of Analytical Chemistry (EGSAC) to help in designing a system that will improve their efficiency in accepting more donations and to further enhance their ability to organize campaigns easily and promote more volunteers.

### **1.2 Scope of this document**

The start of the activity of the Egyptian Society of Analytical Chemistry (ESAC) our interest was to strengthen the cooperation between Analytical Chemists in Egypt with Arabic and African colleagues so we joined the Arabic Union of Chemists in 1998 becoming an active member. In 2006 we shared in founding the African Federation of Societies of Chemistry (FASC), of which I am honored being the Vice chairperson of the Federation.

To conclude, the main goal of the Society is to stimulate the progress of Analytical Chemistry and to draw the attention of colleagues and decision makers to the importance of Analytical Chemistry for the welfare of Community and for a better life.

## 1.3 Overview



## 1.4 Business Context

- More organized
- Easily monitoring: (member acceptance)
- Saving their time
- easily storing data

## 2 General Description

### 2.1 Product Functions

1. All board members are volunteers, they are composed of managerial, non-managerial and honorary members.
2. Organize symposia and academic events.
3. Provide research journals for analytical chemistry and other career resources.
4. Manage the registration
5. Manage the donations
6. Manage any payment process.
7. Make the responsibilities of every member easy and online to manage job remotely

### 2.2 Similar System Information

- ACS; American chemistry society which is a website for all branches of chemistry. A nonprofit organization which has volunteers and donations. It also has a journal and publishes.
- Royal Society of chemistry; society full of chemistry branches and categorizes some of these branches into education or meetings and events, etc..
- AOAC; gathers government, industry, and academia to establish standard methods of analysis that ensure the safety and integrity of foods and other products that impact public health around the world.

### 2.3 User Characteristics

- There will be multiple users of different ages so the interface needs to be user friendly.
- Some users will prefer to use a different language so there must be a way to select a language preference.
- Scientific scale and knowledgeable community.

### 2.4 User Problem Statement

- No convenient way for saving or recording data.
- Not enough employees to cover up all paperworks.
- No easy payment method for donors.
- Having difficulties accepting & communicating with volunteers.

### 2.5 User Objectives

- Provide access for scientific journals and chemical analytic career resources.
- Accessing documents and other paperwork from online data storage.
- Easy payment methods (ex:Fawry,visa..) and money transfers.

## 2.6 General Constraints

This system requires an expensive hardware in order to perform and store on such a big amount of data.

# 3 Functional Requirements

### 1. User

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**Table 1.1: Functional Requirement 1.1**

<b>Function Name</b>	<b>RemoveUser(UserID,Usertype) /AddUser(UserID,Usertype) /EditUser(UserID,Usertype) /SelectUser(UserID,Usertype) / ModifyUser(UserID,Usertype)</b>
<b>Description</b>	<b>Managerial Department and staff can edit,remove,add,Select,modify user</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database error can occur,View page won't buffer correctly</b>

<b>Cost and schedules</b>	<b>No cost, schedule between 2-4 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure ,Database insertion failure.</b>
<b>Dependencies with other requirements</b>	<b>Dependent on login and on the check of Managerial type</b>
<b>Pre-condition</b>	<b>User choose a function to do from buttons</b>
<b>Post-condition</b>	<b>Perform the function desired</b>
<b>Input</b>	<b>UserID,checkManagerial bool</b>
<b>Output</b>	<b>Database records are updated</b>

**Table 1.2: Functional Requirement 1.2**

<b>Function Name</b>	<b>+ ViewAccount()</b>
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<b>Description</b>	<b>View the account of each user</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database error can occur,View page won't buffer correctly</b>
<b>Cost and schedules</b>	<b>No cost, schedule between 2-4 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure ,Database insertion failure.</b>
<b>Dependencies with other requirements</b>	<b>Dependent on login</b>
<b>Pre-condition</b>	<b>User choose a function to do from buttons</b>
<b>Post-condition</b>	<b>Perform the function desired</b>
<b>Input</b>	

<b>Output</b>	<b>Database records are updated</b>
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**Table 1.3: Functional Requirement 1.3**

<b>Function Name</b>	<b>EditAccount()</b>
<b>Description</b>	<b>The main user can edit his own account</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database error can occur,View page won't buffer correctly</b>
<b>Cost and schedules</b>	<b>No cost, schedule between 2-3 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure ,Database insertion failure.</b>
<b>Dependencies with other requirements</b>	<b>Dependent on login</b>

<b>Pre-condition</b>	<b>User choose to edit his account</b>
<b>Post-condition</b>	<b>Editted attribute will be updated</b>
<b>Input</b>	
<b>Output</b>	<b>Database records are updated</b>

**Table 1.4: Functional Requirement 1.4**

<b>Function Name</b>	<b>RecordLogin(LoginDate, LoginTime)</b>
<b>Description</b>	<b>Function to record the login date info</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database error can occur,View page won't buffer correctly, inaccurate date or time.</b>
<b>Cost and schedules</b>	<b>No cost, schedule between 0-1 days</b>



<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure ,Database insertion failure.</b>
<b>Dependencies with other requirements</b>	<b>Dependent on login</b>
<b>Pre-condition</b>	<b>User choose a function to do from buttons</b>
<b>Post-condition</b>	<b>Perform the function desired</b>
<b>Input</b>	<b>LoginDate,LoginTime</b>
<b>Output</b>	<b>Database records are updated</b>

**Table 1.5: Functional Requirement 1.5**

<b>Function Name</b>	<b>ValidateLogin(Username, Password): bool</b>
<b>Description</b>	<b>Validation of the login whether it was in the database or not.</b>

<b>Critically</b>	<b>Intermediate</b>
<b>Technical Issues</b>	<b>Database error can occur,View page won't buffer correctly,error in syntax of the function or error in the</b>
<b>Cost and schedules</b>	<b>No cost, schedule between 1-2 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure ,Database insertion failure.</b>
<b>Dependencies with other requirements</b>	<b>Dependent on login</b>
<b>Pre-condition</b>	<b>The username and the password will be in the paramters to check on them</b>
<b>Post-condition</b>	<b>It may be valid or not</b>
<b>Input</b>	<b>Username,password</b>
<b>Output</b>	<b>If valid the user will be delievered to its view whether than that it will be rejected and redirected to login again</b>

**Table 1.6: Functional Requirement 1.6**

<b>Function Name</b>	<b>GuestLogin(): GuestID</b>
<b>Description</b>	<b>Especially for the Guest login</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database error can occur,View page won't buffer correctly</b>
<b>Cost and schedules</b>	<b>No cost, schedule between 2 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure</b>
<b>Dependencies with other requirements</b>	<b>Dependent on login</b>
<b>Pre-condition</b>	<b>Guest will enter username and password</b>
<b>Post-condition</b>	<b>guest will be directed to its view page</b>

<b>Input</b>	<b>Guest required info to login</b>
<b>Output</b>	<b>Logged in the website</b>

**Table 1.7: Functional Requirement 1.7**

<b>Function Name</b>	<b>ForgetPassword(email)</b>
<b>Description</b>	<b>The user can edit the password</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database error can occur,View page won't buffer correctly</b>
<b>Cost and schedules</b>	<b>No cost, schedule between 1-2 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure ,Database update failure.</b>

<b>Dependencies with other requirements</b>	<b>Dependent on login</b>
<b>Pre-condition</b>	<b>User choose to edit his account</b>
<b>Post-condition</b>	<b>Email will be sent for verification</b>
<b>Input</b>	<b>Email to get the mail to change the password</b>
<b>Output</b>	<b>Database records are updated</b>

**Table 1.8: Functional Requirement 1.8**

<b>Function Name</b>	<b>GetRegDate(): date</b>
<b>Description</b>	<b>Function to get the date of the registration</b>
<b>Critically</b>	<b>Intermediate</b>

<b>Technical Issues</b>	<b>Database error can occur,View page won't buffer correctly</b>
<b>Cost and schedules</b>	<b>No cost, schedule between 0-1 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure</b>
<b>Dependencies with other requirements</b>	<b>Dependent on login</b>
<b>Pre-condition</b>	<b>User choose a function to do from buttons</b>
<b>Post-condition</b>	<b>Perform the function desired</b>
<b>Input</b>	<b>date</b>
<b>Output</b>	<b>The date we will get it.</b>

## 2. Registration

**Table 2.1: Functional Requirement 2.1**

<b>Function Name</b>	<b>Register(): bool</b>
<b>Description</b>	<b>Make an account for user and add it into the database</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database connection failure or invalid data insertion from user or different data type</b>
<b>Cost and schedules</b>	<b>No cost, schedule 2-3 days</b>
<b>Risks</b>	<b>Data may duplicate, Internet Connection Failure, Database Connection Failure</b>
<b>Dependencies with other requirements</b>	
<b>Pre-condition</b>	<b>User should enter required data</b>
<b>Post-condition</b>	<b>User added to database</b>

<b>Input</b>	
<b>Output</b>	<b>User account added to database and will be able to log in.</b>

**Table 2.2: Functional Requirement 2.2**

<b>Function Name</b>	<b>ValidateUsername(): bool</b>
<b>Description</b>	<b>Check for the username validity</b>
<b>Critically</b>	<b>Intermediate</b>
<b>Technical Issues</b>	<b>Database connection failure</b>
<b>Cost and schedules</b>	<b>No cost, schedule 0-1 days</b>
<b>Risks</b>	<b>, Internet Connection Failure, Database Connection Failure</b>
<b>Dependencies with other requirements</b>	<b>Register 2.1</b>



<b>Pre-condition</b>	<b>User should enter the username</b>
<b>Post-condition</b>	<b>Checked if similar in database</b>
<b>Input</b>	username
<b>Output</b>	<b>If it was checked wrong an alert will be shown to him else it will be okay.</b>

**Table 2.3: Functional Requirement 2.3**

<b>Function Name</b>	<b>ValidateEmail(): bool</b>
<b>Description</b>	<b>Check for the email validity</b>
<b>Critically</b>	<b>Intermediate</b>
<b>Technical Issues</b>	<b>Database connection failure</b>
<b>Cost and schedules</b>	<b>No cost, schedule 0-1 days</b>

<b>Risks</b>	<b>, Internet Connection Failure, Database Connection Failure</b>
<b>Dependencies with other requirements</b>	<b>Register 2.1</b>
<b>Pre-condition</b>	<b>User should enter the email</b>
<b>Post-condition</b>	<b>Checked if similar in database</b>
<b>Input</b>	username
<b>Output</b>	<b>If it was checked wrong an alert will be shown to him else it will be okay.</b>

**Table 2.4: Functional Requirement 2.4**

<b>Function Name</b>	<b>ValidatePassword(): bool</b>
<b>Description</b>	<b>Check for the password validity</b>
<b>Critically</b>	<b>Intermediate</b>

<b>Technical Issues</b>	<b>Database connection failure</b>
<b>Cost and schedules</b>	<b>No cost, schedule 0-1 days</b>
<b>Risks</b>	<b>, Internet Connection Failure, Database Connection Failure</b>
<b>Dependencies with other requirements</b>	<b>Register 2.1</b>
<b>Pre-condition</b>	<b>User should enter the password</b>
<b>Post-condition</b>	<b>Checked if similar in database</b>
<b>Input</b>	
<b>Output</b>	<b>If it was checked wrong an alert will be shown to him else it will be okay.</b>

**Table 2.5: Functional Requirement 2.5**

<b>Function Name</b>	<b>ValidatePreviousUser()</b>
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<b>Description</b>	<b>Check for the account validity</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database connection failure</b>
<b>Cost and schedules</b>	<b>No cost, schedule 1-2 days</b>
<b>Risks</b>	<b>, Internet Connection Failure, Database Connection Failure</b>
<b>Dependencies with other requirements</b>	<b>Register 2.1</b>
<b>Pre-condition</b>	<b>User should enter the required data to register</b>
<b>Post-condition</b>	<b>Checked if similar in database</b>
<b>Input</b>	<b>Required data</b>

<b>Output</b>	<b>If it was checked wrong an alert will be shown to him else it will be okay. Will suggest to login</b>
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**Table 2.6 : Functional Requirement 2.6**

<b>Function Name</b>	<b>ValidteEmptyFields()</b>
<b>Description</b>	<b>Check if there is empty fields</b>
<b>Critically</b>	<b>Intermediate</b>
<b>Technical Issues</b>	<b>Database connection failure</b>
<b>Cost and schedules</b>	<b>No cost, schedule 0-1 days</b>
<b>Risks</b>	<b>, Internet Connection Failure, Database Connection Failure</b>
<b>Dependencies with other requirements</b>	<b>Register 2.1</b>
<b>Pre-condition</b>	<b>Check for the empty fields</b>

<b>Post-condition</b>	<b>Checked if similar in database</b>
<b>Input</b>	
<b>Output</b>	<b>If it was checked wrong an alert will be shown to him else it will be okay.</b>

### 3. Guest

**Table 3.1: Functional Requirement 3.1**

<b>Function Name</b>	<b>PayRegistartionFees(PayAmount): bool</b>
<b>Description</b>	<b>Check for the fees if it's payed or not and check if it is payed correctly.</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database connection failure</b>

<b>Cost and schedules</b>	<b>No cost, schedule 1-2 days</b>
<b>Risks</b>	<b>Data may duplicate, Internet Connection Failure, Database Connection Failure</b>
<b>Dependencies with other requirements</b>	<b>Login</b>
<b>Pre-condition</b>	<b>User should have payed to check for the payment</b>
<b>Post-condition</b>	<b>1 for positive check or 0 negative</b>
<b>Input</b>	PayedAmount
<b>Output</b>	<b>Check will be returned</b>

**Table 3.2: Functional Requirement 3.2**

<b>Function Name</b>	<b>RequestSymposiaAddmission(): bool</b>
<b>Description</b>	<b>Request for symposia and check if accepted or not.</b>

<b>Critically</b>	<b>Intermediate</b>
<b>Technical Issues</b>	<b>Database connection failure</b>
<b>Cost and schedules</b>	<b>No cost, schedule 0-1 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure</b>
<b>Dependencies with other requirements</b>	<b>Register 2.1</b>
<b>Pre-condition</b>	<b>Request symposia add a symposia</b>
<b>Post-condition</b>	<b>Checked if similar in database</b>
<b>Input</b>	
<b>Output</b>	<b>Returned 1 or 0</b>

**Table 3.3: Functional Requirement 3.3**



<b>Function Name</b>	<b>ViewSymposia()</b>
<b>Description</b>	<b>Guest will be able to view Symposia and see its details.</b>
<b>Critically</b>	<b>Intermediate</b>
<b>Technical Issues</b>	<b>Database connection failure or missing value from database table's attribute, error on loading the page.</b>
<b>Cost and schedules</b>	<b>No cost, schedule 2-3 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure ,Database fetch process failure.</b>
<b>Dependencies with other requirements</b>	<b>Dependent on login</b>
<b>Pre-condition</b>	<b>Users should click on the event he wants.</b>
<b>Post-condition</b>	<b>He will be able to see the symposia and know the details.</b>

<b>Input</b>	<b>Click from the user to the symposia.</b>
<b>Output</b>	<b>The symposia with its details.</b>

**Table 3.4: Functional Requirement 3.4**

<b>Function Name</b>	<b>ViewCalendar()</b>
<b>Description</b>	<b>Users will be able to see the calendar with all the symposia or events it has.</b>
<b>Critically</b>	<b>Intermediate</b>
<b>Technical Issues</b>	<b>Database connection failure or missing value from database table's attribute, error on loading the page.</b>
<b>Cost and schedules</b>	<b>No cost, schedule 2-3 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure, Error in loading the calendar form</b>

<b>Dependencies with other requirements</b>	<b>login</b>
<b>Pre-condition</b>	<b>Users should click on the calendar tab.</b>
<b>Post-condition</b>	<b>User will be able to check the calendar</b>
<b>Input</b>	<b>Click on calendar's tab</b>
<b>Output</b>	<b>He will see the calendar with the events' date</b>

**Table 3.5: Functional Requirement 3.5**

<b>Function Name</b>	<b>ViewJournal()</b>
<b>Description</b>	<b>The function helps to view the journal of egsac.</b>
<b>Critically</b>	<b>Intermediate</b>

<b>Technical Issues</b>	<b>Database connection failure or missing value from database table's attribute, error on loading the page.</b>
<b>Cost and schedules</b>	<b>No cost, schedule 2-3 days</b>
<b>Risks</b>	<b>Data may duplicate, Internet Connection Failure, Database Connection Failure.</b>
<b>Dependencies with other requirements</b>	<b>Dependent on Login</b>
<b>Pre-condition</b>	<b>User needs to click on the journal to take him to the journal's page.</b>
<b>Post-condition</b>	<b>Journal page will be opened to the user.</b>
<b>Input</b>	<b>Click on the tab of the journal.</b>
<b>Output</b>	<b>Guest will open the journal to select what he wants to view.</b>

#### **4. Member**

+ **RenewMemberShip(EnrollmentDate) + SubmitForm(MembershipForm) + PerformTaskFromAgenda(Task)**

**Table 4.1: Functional Requirement 4.1**

<b>Function Name</b>	<b>checkMembershipDate(RegDate)</b>
<b>Description</b>	<b>When the member is logged in that system has to check whether his Membership is valid and is renewed or not.</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database connection failure or missing value from database table's attribute. Or wrong insertion of the needed data or in calculation</b>
<b>Cost and schedules</b>	<b>No cost, schedule from 2-3</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure, Function won't be able to check the current date.</b>

<b>Dependencies with other requirements</b>	<b>Dependent on Login</b>
<b>Pre-condition</b>	<b>User must be logged in</b>
<b>Post-condition</b>	<b>If the membership is up-to-date the user would be able to manage and control his acc else he has to renew the membership</b>
<b>Input</b>	<b>RegDate</b>
<b>Output</b>	<b>Will return bool if it's true or false.</b>

**Table 4.2: Functional Requirement 4.2**

<b>Function Name</b>	<b>FillMForm(Nationality,AcademicQ,DateQ,DateP ,JobA)</b>
<b>Description</b>	<b>The user need to fill the form for the membership</b>
<b>Critically</b>	<b>High</b>

<b>Technical Issues</b>	<b>Database connection failure or missing value from database table's attribute, incorrect value insertion.</b>
<b>Cost and schedules</b>	<b>It doesn't require a special hardware</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure, Error in insertion of database.</b>
<b>Dependencies with other requirements</b>	
<b>Pre-condition</b>	<b>User needs to insert required data</b>
<b>Post-condition</b>	<b>User will be recorded in database</b>
<b>Input</b>	<b>Nationallity, AcademicQ, DateQ, DateP, JobA</b>
<b>Output</b>	<b>Database will be updated with the new record</b>

**Table 4.3: Functional Requirement 4.3**

<b>Function Name</b>	<b>RenewMemberShip(RegDate)</b>
<b>Description</b>	<b>The members need to renew their membership every year</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database connection failure or missing value from database table's attribute, database won't be updated.</b>
<b>Cost and schedules</b>	<b>No cost, schedule 2-5 days</b>
<b>Risks</b>	<b>Data may duplicate, Internet Connection Failure, Database Connection Failure, Data Insertion error.</b>
<b>Dependencies with other requirements</b>	<b>Dependent on Login and F.R 4.1</b>
<b>Pre-condition</b>	<b>User needs to renew their membership</b>
<b>Post-condition</b>	<b>The page will load the payment method to pay the fees</b>



<b>Input</b>	<b>Click on the tab of renew</b>
<b>Output</b>	<b>User will be able to renew the membership</b>

**Table 4.5: Functional Requirement 4.5**

<b>Function Name</b>	<b>SubmitForm(MembershipForm)</b>
<b>Description</b>	<b>Function submits the form to confirm the insertion in database</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database connection failure or missing value from database table's attribute, submit by mistake.</b>
<b>Cost and schedules</b>	<b>No cost, 1-2 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure, Database insertion.</b>

<b>Dependencies with other requirements</b>	<b>Dependent on 4.3,4.4</b>
<b>Pre-condition</b>	<b>Fill the form</b>
<b>Post-condition</b>	<b>Form submitted</b>
<b>Input</b>	<b>Filling the form and clicking the submit button</b>
<b>Output</b>	<b>Database will be updated</b>

**Table 4.6: Functional Requirement 4.6**

<b>Function Name</b>	<b>PerformTaskFromAgenda(Task)</b>
<b>Description</b>	<b>Member will be able to perform some tasks managers</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Agenda won't load correctly or with missing data</b>

<b>Cost and schedules</b>	<b>No cost, schedule between 2-4 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure ,Database insertion failure,Bank connection failure.</b>
<b>Dependencies with other requirements</b>	<b>Dependent on login</b>
<b>Pre-condition</b>	<b>Member opens Agenda.</b>
<b>Post-condition</b>	<b>Perform the task</b>
<b>Input</b>	<b>Task</b>
<b>Output</b>	<b>Perform tasks needed.</b>

## 5. ManagerialDpt

**Table 5.1: Functional Requirement 5.1**

<b>Function Name</b>	<b>ManageSymposia(Symposia)</b>
<b>Description</b>	<b>Managerial Users will be able to manage the symposia.</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	
<b>Cost and schedules</b>	<b>No cost, schedule between 2-4 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure</b>
<b>Dependencies with other requirements</b>	<b>Dependent on login</b>
<b>Pre-condition</b>	<b>Managerial staff should be logged in and select agenda</b>
<b>Post-condition</b>	<b>He will go to the options to manage the symposia</b>

<b>Input</b>	<b>Click on Manage symposia button</b>
<b>Output</b>	<b>The symposia options to manage will be viewed to him</b>

**Table 5.2: Functional Requirement 5.2**

<b>Function Name</b>	ManageTasks(tasks)
<b>Description</b>	<b>Managerial Users will be able to manage the tasks</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	
<b>Cost and schedules</b>	<b>No cost, schedule between 2-4 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure</b>

<b>Dependencies with other requirements</b>	<b>Dependent on login</b>
<b>Pre-condition</b>	<b>Managerial staff should be logged in and select agenda's task</b>
<b>Post-condition</b>	<b>He will go to the options to manage the task</b>
<b>Input</b>	<b>task</b>
<b>Output</b>	<b>The task options to manage will be viewed to him</b>

**Table 5.3: Functional Requirement 5.3**

<b>Function Name</b>	<b>MonitorMembers(Members)</b>
<b>Description</b>	<b>Managerial Users will be able to monitor the members</b>
<b>Critically</b>	<b>High</b>

<b>Technical Issues</b>	
<b>Cost and schedules</b>	<b>No cost, schedule between 2-4 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure</b>
<b>Dependencies with other requirements</b>	<b>Dependent on login</b>
<b>Pre-condition</b>	<b>Managerial staff should be logged in and select member</b>
<b>Post-condition</b>	<b>He will go to the options to manage the member</b>
<b>Input</b>	<b>member</b>
<b>Output</b>	<b>The member list will be viewed to</b>

## 6. BoardMember

**Table 6.1: Functional Requirement 6.1**

<b>Function Name</b>	<b>ManageAgenda(Agenda)</b>
<b>Description</b>	<b>Managerial Users will be able to manage the online agenda with its tasks.</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	
<b>Cost and schedules</b>	<b>No cost, schedule between 2-4 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure</b>
<b>Dependencies with other requirements</b>	<b>Dependent on login</b>
<b>Pre-condition</b>	<b>Managerial staff should be logged in and select agenda</b>
<b>Post-condition</b>	<b>He will go to the options to manage the agenda</b>



<b>Input</b>	<b>Click on Manage Agenda button</b>
<b>Output</b>	<b>The Agenda options to manage will be viewed to him</b>

**Table 6.2: Functional Requirement 6.2**

<b>Function Name</b>	<b>ApprovalAgreements()</b>
<b>Description</b>	<b>The function is to approve agreements between the managerial staff</b>
<b>Critically</b>	<b>Intermediate</b>
<b>Technical Issues</b>	<b>Database needed to be updated</b>
<b>Cost and schedules</b>	<b>No cost , schedule between 0-1 day</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure.</b>

<b>Dependencies with other requirements</b>	<b>Dependent on Login</b>
<b>Pre-condition</b>	<b>User needs to confirm the agreements.</b>
<b>Post-condition</b>	<b>Agreement accepted</b>
<b>Input</b>	<b>Click on the accept button.</b>
<b>Output</b>	<b>Database will be updated</b>

**Table 6.3: Functional Requirement 6.3**

<b>Function Name</b>	<b>AcceptMembership(\$MembershipReg)</b>
<b>Description</b>	<b>The function is to choose which membership will be accepted</b>
<b>Critically</b>	<b>High</b>

<b>Technical Issues</b>	<b>Database needed to be updated</b>
<b>Cost and schedules</b>	<b>No cost , schedule between 0-1 day</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure.</b>
<b>Dependencies with other requirements</b>	<b>Dependent on Login</b>
<b>Pre-condition</b>	<b>Board Member should view the requests</b>
<b>Post-condition</b>	<b>The board member will choose which to accept</b>
<b>Input</b>	<b>Click on the accept button.</b>
<b>Output</b>	<b>Database will be updated</b>

## 7. President

**Table 7.1: Functional Requirement 7.1**

<b>Function Name</b>	AgendaApproval()
<b>Description</b>	<b>The president can approve agenda</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database connection failure or missing value from database table's attribute.</b>
<b>Cost and schedules</b>	<b>No cost, schedule 2-3 days</b>
<b>Risks</b>	<b>Data may duplicate, Internet Connection Failure, Database Connection Failure,Data Insertion error.</b>
<b>Dependencies with other requirements</b>	<b>Dependent on Login</b>
<b>Pre-condition</b>	<b>User needs to be logged in and managerial type</b>
<b>Post-condition</b>	<b>Agenda Approved</b>

<b>Input</b>	<b>Click on the button to approve the Agenda</b>
<b>Output</b>	<b>The agenda is approved</b>

**Table 7.2: Functional Requirement 7.2**

<b>Function Name</b>	<b>SigningAgreements()</b>
<b>Description</b>	<b>Function for the president that helps president to sign agreements</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database connection failure or missing value from database table's attribute or problem in connecting to the mail</b>
<b>Cost and schedules</b>	<b>No cost, 1-2 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure, Database</b>

<b>Dependencies with other requirements</b>	<b>Dependent login</b>
<b>Pre-condition</b>	<b>Select what to approve</b>
<b>Post-condition</b>	<b>Approve completed</b>
<b>Input</b>	
<b>Output</b>	<b>Alert successful process</b>

**Table 7.3: Functional Requirement 7.3**

<b>Function Name</b>	ModifySymposia()
<b>Description</b>	<b>The president members can modify the symposia</b>
<b>Critically</b>	<b>High</b>

<b>Technical Issues</b>	<b>Database connection failure or missing value from database table's attribute.</b>
<b>Cost and schedules</b>	<b>No cost, schedule 2-3 days</b>
<b>Risks</b>	<b>Data may duplicate, Internet Connection Failure, Database Connection Failure, Data Insertion error.</b>
<b>Dependencies with other requirements</b>	<b>Dependent on Login</b>
<b>Pre-condition</b>	<b>User needs to be logged in and be president</b>
<b>Post-condition</b>	<b>Symposia will be modified as desired</b>
<b>Input</b>	<b>Click on the button to modify specific symposia</b>
<b>Output</b>	<b>Database will be updated</b>

## 8. VicePresident

**Table 8.1: Functional Requirement 8.1**

<b>Function Name</b>	<b>ManageManagerialHierarchy()</b>
<b>Description</b>	<b>Vice President change the managerial hierarchy and edit it</b>
<b>Critically</b>	<b>Intermediate</b>
<b>Technical Issues</b>	<b>Database problem on insertion</b>
<b>Cost and schedules</b>	<b>No cost, schedule between 1-3days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure</b>
<b>Dependencies with other requirements</b>	<b>Dependent on login</b>
<b>Pre-condition</b>	<b>Vice President should select the hierarchy of the managerial staff</b>



<b>Post-condition</b>	<b>Positions and functionalities will be updated</b>
<b>Input</b>	
<b>Output</b>	<b>Database updated</b>

**Table 8.2: Functional Requirement 8.2**

<b>Function Name</b>	<b>ManageJournal()</b>
<b>Description</b>	<b>Vice president can manage the journal and its content</b>
<b>Critically</b>	<b>Intermediate</b>
<b>Technical Issues</b>	<b>Database problem on insertion, editing</b>
<b>Cost and schedules</b>	<b>No cost, schedule between 1-3days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure</b>

<b>Dependencies with other requirements</b>	<b>Dependent on login</b>
<b>Pre-condition</b>	<b>President should choose what to do in the journal</b>
<b>Post-condition</b>	<b>May be edited or deleted .. depends on what options he needs</b>
<b>Input</b>	
<b>Output</b>	<b>Database updated if there is an action he did</b>

## 9. Secretary

**Table 9.1: Functional Requirement 9.1**

<b>Function Name</b>	<b>SendEmails(Email)</b>
<b>Description</b>	<b>User can send emails</b>

<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database connection failure or missing value from database table's attribute.</b>
<b>Cost and schedules</b>	<b>No cost, schedule from 3-5 days</b>
<b>Risks</b>	<b>Internet Connection Failure,mail duplication.</b>
<b>Dependencies with other requirements</b>	<b>Logged in</b>
<b>Pre-condition</b>	<b>Type mail</b>
<b>Post-condition</b>	<b>Send mail</b>
<b>Input</b>	<b>Email</b>
<b>Output</b>	<b>Sent mail</b>

**Table 9.2: Functional Requirement 9.2**

<b>Function Name</b>	<b>AnnouceMeeting(date,time,purpose)</b>
<b>Description</b>	<b>Function for members to announce meetings</b>
<b>Critically</b>	<b>Average</b>
<b>Technical Issues</b>	<b>Database connection failure</b>
<b>Cost and schedules</b>	<b>No cost,but 1-2 days</b>

<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure</b>
<b>Dependencies with other requirements</b>	<b>Login</b>
<b>Pre-condition</b>	<b>User choose the date of meeting</b>
<b>Post-condition</b>	<b>Data has been saved</b>
<b>Input</b>	<b>date,time,purpose</b>
<b>Output</b>	<b>Database has been updated</b>

## 10. Cashier

+

**Table 10.1: Functional Requirement 10.1**

<b>Function Name</b>	<b>PrintPaymentReports()</b>
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<b>Description</b>	<b>Cashier will be able to print reports.</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Printer not connected or malfunctioning</b>
<b>Cost and schedules</b>	<b>No cost, schedule between 2-4 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure, printer problems</b>
<b>Dependencies with other requirements</b>	<b>Dependent on login</b>
<b>Pre-condition</b>	<b>Cashier should be logged in and select report to print</b>
<b>Post-condition</b>	<b>Printed report</b>
<b>Input</b>	<b>Report</b>

<b>Output</b>	<b>Successful print process</b>
---------------	---------------------------------

**Table 10.2: Functional Requirement 10.2**

<b>Function Name</b>	ViewPaymentRecords()
<b>Description</b>	<b>Cashier will be able to view reports.</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Page won't load correctly, problem in fetching</b>
<b>Cost and schedules</b>	<b>No cost, schedule between 2-4 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure</b>
<b>Dependencies with other requirements</b>	<b>Dependent on login</b>

<b>Pre-condition</b>	<b>Cashier should be logged in and select view the records</b>
<b>Post-condition</b>	<b>The records will be shown</b>
<b>Input</b>	<b>Tap to view the records</b>
<b>Output</b>	<b>He will see the payment records</b>

**Table 10.3: Functional Requirement 10.3**

<b>Function Name</b>	<b>+ RecordPayments()</b>
<b>Description</b>	<b>Cashier will be able to record payments and transactions.</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Error while recording the payment</b>



<b>Cost and schedules</b>	<b>No cost, schedule between 2-4 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure, insertion problem</b>
<b>Dependencies with other requirements</b>	<b>Dependent on login</b>
<b>Pre-condition</b>	<b>Cashier should be logged in and select record new payments</b>
<b>Post-condition</b>	<b>Database updated</b>
<b>Input</b>	<b>Choose to record the payment</b>
<b>Output</b>	<b>Database added</b>

**Table 10.4: Functional Requirement 10.4**

<b>Function Name</b>	ViewDonationRecords()
<b>Description</b>	<b>Cashier will be able to view donations with its details.</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Page won't load correctly, problem in fetching</b>
<b>Cost and schedules</b>	<b>No cost, schedule between 2-4 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure, printer problems</b>
<b>Dependencies with other requirements</b>	<b>Dependent on login</b>
<b>Pre-condition</b>	<b>Cashier should be logged in and select view the donations details</b>
<b>Post-condition</b>	<b>The report will be shown</b>

<b>Input</b>	<b>Tap to view it.</b>
<b>Output</b>	<b>He will see the donations details</b>

## 11. DonationsDetails

**Table 11.1: Functional Requirement 11.1**

<b>Function Name</b>	SendDonationReport(report)
<b>Description</b>	<b>Users in charge will be able to send donation reports</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database connection failure or missing value from database table's attribute.</b>
<b>Cost and schedules</b>	<b>No cost, schedule from 3-5 days</b>

<b>Risks</b>	<b>Internet Connection Failure,mail duplication.</b>
<b>Dependencies with other requirements</b>	<b>Logged in</b>
<b>Pre-condition</b>	<b>Get the required report</b>
<b>Post-condition</b>	<b>Send report</b>
<b>Input</b>	<b>Report</b>
<b>Output</b>	<b>Sent report</b>

**Table 11.2: Functional Requirement 11.2**

<b>Function Name</b>	<b>RecordDonation(DonationID)</b>
<b>Description</b>	<b>Specified will be able to record the donation with the donor ID</b>

<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database connection failure or missing value from database table's attribute.</b>
<b>Cost and schedules</b>	<b>No cost, schedule from 3-5 days</b>
<b>Risks</b>	<b>Internet Connection Failure, duplication.</b>
<b>Dependencies with other requirements</b>	<b>Logged in</b>
<b>Pre-condition</b>	<b>Enter the data</b>
<b>Post-condition</b>	<b>Updated in db</b>
<b>Input</b>	<b>DonationID</b>
<b>Output</b>	<b>Database has been updated</b>

## 12. iDonate

**Table 12.1: Functional Requirement 12.1**

<b>Function Name</b>	Donate(DonationAmount)
<b>Description</b>	<b>Non-Managerial Users will be able to donate to the society.</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Bank connection problem or entering wrong payment amount</b>
<b>Cost and schedules</b>	<b>No cost, schedule between 2-4 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure ,Database insertion failure,Bank connection failure.</b>
<b>Dependencies with other requirements</b>	<b>Dependent on login</b>
<b>Pre-condition</b>	<b>Users should choose button of pay donations.</b>

<b>Post-condition</b>	<b>He will go to the page to select the payment method</b>
<b>Input</b>	<b>Click on the button of Pay Donations</b>
<b>Output</b>	<b>The Payment method with its functionality</b>

**Table 12.2: Functional Requirement 12.2**

<b>Function Name</b>	<b>+ConfirmDonation(DonationID) /CancelDonation(DonationID)</b>
<b>Description</b>	<b>You can confirm or delete the Payment you were going to pay</b>
<b>Critically</b>	<b>Intermediate</b>
<b>Technical Issues</b>	<b>Database connection failure or missing value or wrong from database table's attribute.</b>
<b>Cost and schedules</b>	<b>No cost but schedule 2-3 days.</b>

<b>Risks</b>	<b>Data may duplicate, Internet Connection Failure, Database Connection Failure,Bank connection failure</b>
<b>Dependencies with other requirements</b>	<b>Dependent on F.R 12.1</b>
<b>Pre-condition</b>	<b>This user has to press the payment method.</b>
<b>Post-condition</b>	<b>The payment request will be confirmed or deleted</b>
<b>Input</b>	<b>The user will press confirm or delete the request of Payment</b>
<b>Output</b>	<b>Payment request will be deleted or confirmed</b>

### 13. iPayment

**Table 12.1: Functional Requirement 12.1**

<b>Function Name</b>	<b>Donate(DonationAmount)</b>
<b>Description</b>	<b>Non-Managerial Users will be able to donate to the society.</b>



<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Bank connection problem or entering wrong payment amount</b>
<b>Cost and schedules</b>	<b>No cost, schedule between 2-4 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure ,Database insertion failure,Bank connection failure.</b>
<b>Dependencies with other requirements</b>	<b>Dependent on login</b>
<b>Pre-condition</b>	<b>Users should choose button of pay donations.</b>
<b>Post-condition</b>	<b>He will go to the page to select the payment method</b>
<b>Input</b>	<b>Click on the button of Pay Donations</b>
<b>Output</b>	<b>The Payment method with its functionality</b>

**Table 13.2: Functional Requirement 13.2**

<b>Function Name</b>	+ConfirmDonation(DonationID) /CancelDonation(DonationID)
<b>Description</b>	<b>You can confirm or delete the Payment you were going to pay</b>
<b>Critically</b>	<b>Intermediate</b>
<b>Technical Issues</b>	<b>Database connection failure or missing value or wrong from database table's attribute.</b>
<b>Cost and schedules</b>	<b>No cost but schedule 2-3 days.</b>
<b>Risks</b>	<b>Data may duplicate, Internet Connection Failure, Database Connection Failure,Bank connection failure</b>
<b>Dependencies with other requirements</b>	<b>Dependent on F.R 13.1</b>
<b>Pre-condition</b>	<b>This user has to press the payment method.</b>
<b>Post-condition</b>	<b>The payment request will be confirmed or deleted</b>

<b>Input</b>	<b>The user will press confirm or delete the request of Payment</b>
<b>Output</b>	<b>Payment request will be deleted or confirmed</b>

#### 14. iRequest

**Table 1.1: Functional Requirement 1.1**

<b>Function Name</b>	AddRequest(ReqT )/ DeleteRequest(ReqT) / EditRequest(ReqT)
<b>Description</b>	<b>Guest and member can add or delete or edit request whether to attend or hold a symposia</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database error can occur,View page won't buffer correctly</b>
<b>Cost and schedules</b>	<b>No cost, schedule between 2-4 days</b>

<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure ,Database insertion failure.</b>
<b>Dependencies with other requirements</b>	<b>Dependent on login</b>
<b>Pre-condition</b>	<b>User choose a function to do from buttons</b>
<b>Post-condition</b>	<b>Perform the function desired</b>
<b>Input</b>	<b>Request type</b>
<b>Output</b>	<b>Database records are updated</b>

## 15. Membership

**Table 15.1: Functional Requirement 15.1**

<b>Function Name</b>	<b>checkState(DateOfEnrollment)</b>
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<b>Description</b>	<b>When the member is logged in that system has to check whether his Membership is valid and is renewed or not.</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database connection failure or missing value from database table's attribute. Or wrong insertion of the needed data or in calculation</b>
<b>Cost and schedules</b>	<b>No cost, schedule from 2-3</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure, Function won't be able to check the current date.</b>
<b>Dependencies with other requirements</b>	<b>Dependent on Login</b>
<b>Pre-condition</b>	<b>User must be logged in</b>
<b>Post-condition</b>	<b>If the membership is up-to-date the user would be able to manage and control his acc else he has to renew the membership</b>

<b>Input</b>	<b>DateOfEnrollment</b>
<b>Output</b>	<b>Will return bool if it's true or false.</b>

## 16. Payment

**Table 16.1: Functional Requirement 16.1**

<b>Function Name</b>	<b>RecordPayment(ReceiptNumber): bool</b>
<b>Description</b>	<b>it will be able to record payments and transactions.</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Error while recording the payment</b>
<b>Cost and schedules</b>	<b>No cost, schedule between 2-4 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure, insertion problem</b>

<b>Dependencies with other requirements</b>	<b>Dependent on login</b>
<b>Pre-condition</b>	<b>Cashier should be logged in and select record new payments</b>
<b>Post-condition</b>	<b>Database updated</b>
<b>Input</b>	ReceiptNumber
<b>Output</b>	<b>Database added</b>

**Table 16.2: Functional Requirement 16.2**

<b>Function Name</b>	AddPayMethod(PaymentMethod)/DeletePaytMethod(PaymentMethod) / EditPayMethod(PaymentMethod)
<b>Description</b>	<b>In charge person can edit,remove,add payment method</b>
<b>Critically</b>	<b>High</b>

<b>Technical Issues</b>	<b>Database error can occur,View page won't buffer correctly</b>
<b>Cost and schedules</b>	<b>No cost, schedule between 2-4 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure ,Database insertion failure.</b>
<b>Dependencies with other requirements</b>	<b>Dependent on login and on the check of its type</b>
<b>Pre-condition</b>	<b>User choose a function to do from buttons</b>
<b>Post-condition</b>	<b>Perform the function desired</b>
<b>Input</b>	<b>PaymentMethod</b>
<b>Output</b>	<b>Database records are updated</b>

**Table 16.3: Functional Requirement 16.3**



<b>Function Name</b>	<b>printInvoice()</b>
<b>Description</b>	<b>Function made to print the payment invoice</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Printer errors and problems</b>
<b>Cost and schedules</b>	<b>No cost, schedule 0-1 days</b>
<b>Risks</b>	<b>Data may duplicate, Internet Connection Failure, Database Connection Failure,Printer is turned off or not connected.</b>
<b>Dependencies with other requirements</b>	<b>F.R 7 or 8</b>
<b>Pre-condition</b>	<b>User should click on payments</b>
<b>Post-condition</b>	<b>The invoice of the payment is printed</b>
<b>Input</b>	

<b>Output</b>	<b>Printed invoice</b>
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## 17. PaymentMethod

**Table 17.1: Functional Requirement 17.1**

<b>Function Name</b>	<b>AddCreditCard(CardNumber, Exp, CVC)</b>
<b>Description</b>	<b>Add credit card details</b>
<b>Critically</b>	<b>Average</b>
<b>Technical Issues</b>	<b>User can add expired credit card or imaginary number.</b>
<b>Cost and schedules</b>	<b>No cost, schdeule 2-3 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure,Database Insertion failure</b>
<b>Dependencies with other requirements</b>	<b>Dependent on the Login,</b>

<b>Pre-condition</b>	<b>User should log in and choose to pay donations or membership and choose online payment</b>
<b>Post-condition</b>	<b>Credit card number will be checked by the next function and will be added in database</b>
<b>Input</b>	CardNumber, Exp, CVC
<b>Output</b>	<b>Database record inserted</b>

**Table 17.2: Functional Requirement 17.2**

<b>Function Name</b>	VerifyCreditCard(expDate): bool
<b>Description</b>	<b>Check for the card exp date with the current date</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Function needs to calculate the time in a right way and check for the validity of exp date</b>

<b>Cost and schedules</b>	<b>No cost, schedule 2 days</b>
<b>Risks</b>	<b>Internet Connection Failure.</b>
<b>Dependencies with other requirements</b>	<b>Dependent on pay donation or fees</b>
<b>Pre-condition</b>	<b>Users should enter expdate</b>
<b>Post-condition</b>	<b>If valid to the current date it will complete the process whether than that an alert will be noted to him</b>
<b>Input</b>	<b>CardExpDate</b>
<b>Output</b>	<b>True if valid false if not.</b>

**Table 17.3: Functional Requirement 17.3**

<b>Function Name</b>	<b>CalTenderedPayment(PayAmount): int</b>
<b>Description</b>	<b>If method is cash then calculate tendered amount</b>

<b>Critically</b>	<b>Average</b>
<b>Technical Issues</b>	<b>User can add expired credit card or imaginary number.</b>
<b>Cost and schedules</b>	<b>No cost, schdeule 2-3 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure,Database Insertion failure</b>
<b>Dependencies with other requirements</b>	<b>Dependent on the Login,</b>
<b>Pre-condition</b>	<b>User should log in and choose to pay cash</b>
<b>Post-condition</b>	<b>Enter the amount payed and the remaning money will be in the output</b>
<b>Input</b>	<b>Payamount</b>
<b>Output</b>	<b>Results of the calculations</b>

## 18. RequestDetails

**Table 18.1: Functional Requirement 18.1**

<b>Function Name</b>	editRequestType(RequestID)
<b>Description</b>	<b>Guest and member can edit request type whether to attend or hold a symposia</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database error can occur,View page won't buffer correctly</b>
<b>Cost and schedules</b>	<b>No cost, schedule between 2-4 days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure ,Database insertion failure.</b>
<b>Dependencies with other requirements</b>	<b>Dependent on login</b>
<b>Pre-condition</b>	<b>User choose a function to do from buttons</b>

<b>Post-condition</b>	<b>Perform the function desired</b>
<b>Input</b>	<b>Request ID</b>
<b>Output</b>	<b>Database records are updated</b>

**Table 18.2: Functional Requirement 18.2**

<b>Function Name</b>	<code>checkRequestState(ReqState):bool</code>
<b>Description</b>	<b>Check whether it is accepted or not.</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database connection failure or missing value from database table's attribute. Or wrong insertion of the needed data or in calculation</b>
<b>Cost and schedules</b>	<b>No cost, schedule from 2-3</b>

<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure, Function won't be able to check the current date.</b>
<b>Dependencies with other requirements</b>	<b>Dependent on Login</b>
<b>Pre-condition</b>	<b>User must be logged in</b>
<b>Post-condition</b>	<b>Alert if rejected, accept if you are okay</b>
<b>Input</b>	ReqState
<b>Output</b>	<b>Will return bool if it's true or false.</b>

**Table 18.3: Functional Requirement 18.3**

<b>Function Name</b>	CheckRequestType(RequestType): bool
<b>Description</b>	<b>Check the request type attend or hold a symposia</b>



<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database connection failure or missing value from database table's attribute. Or wrong insertion of the needed data or in calculation</b>
<b>Cost and schedules</b>	<b>No cost, schedule from 2-3</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure, Function won't be able to check the current date.</b>
<b>Dependencies with other requirements</b>	<b>Dependent on Login and request</b>
<b>Pre-condition</b>	<b>User must be logged in</b>
<b>Post-condition</b>	<b>The check will return the type</b>
<b>Input</b>	RequestType
<b>Output</b>	<b>Will return bool if it's true or false.</b>

## 19. Symposia

**Table 19.1: Functional Requirement 19.1**

<b>Function Name</b>	ShowRequestDetails(RequestDetails obj)
<b>Description</b>	Show the details or the attendance or held request
<b>Critically</b>	High
<b>Technical Issues</b>	Database connection failure or missing value from database table's attribute.
<b>Cost and schedules</b>	No cost, schedule from 2-3
<b>Risks</b>	Internet Connection Failure, Database Connection Failure.
<b>Dependencies with other requirements</b>	Dependent on Login

<b>Pre-condition</b>	<b>User must be logged in</b>
<b>Post-condition</b>	<b>Details will be available</b>
<b>Input</b>	<b>RequestDetails</b>
<b>Output</b>	<b>Will retrieve data from database</b>

## 20. Journal

**Table 20.1-4: Functional Requirement 20.1-4**

<b>Function Name</b>	<b>AddPublication(Publication)/RemovePublication(Publication)/EditPublication(Publication)/SendPublication(Publication)</b>
<b>Description</b>	<b>The managerial members can edit,remove,add or send Publication.</b>
<b>Criticality</b>	<b>High</b>

<b>Technical Issues</b>	<b>Database connection failure or missing value from database table's attribute.</b>
<b>Cost and schedules</b>	<b>No cost, schedule 2-5 days</b>
<b>Risks</b>	<b>Data may duplicate, Internet Connection Failure, Database Connection Failure, Data Insertion error.</b>
<b>Dependencies with other requirements</b>	<b>Dependent on Login</b>
<b>Pre-condition</b>	<b>User needs to be logged in and managerial type</b>
<b>Post-condition</b>	<b>The publication with the desired function will be updated in database</b>
<b>Input</b>	<b>Click on the button of desired function add or remove or edit or send with the specified Publication.</b>

<b>Output</b>	<b>The publication with the desired function will be updated in database</b>
---------------	--

## 21. Publications

**Table 21.1: Functional Requirement 21.1**

<b>Function Name</b>	<b>ModifyCareer(CareerObj)</b>
<b>Description</b>	<b>The career can be modified (add,delete,update)</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database connection failure or missing value from database table's attribute.</b>
<b>Cost and schedules</b>	<b>No cost, schedule 2-3 days</b>
<b>Risks</b>	<b>Data may duplicate, Internet Connection Failure, Database Connection Failure,Data Insertion error.</b>

<b>Dependencies with other requirements</b>	<b>Dependent on Login</b>
<b>Pre-condition</b>	<b>User needs to be logged in and choose specific publication</b>
<b>Post-condition</b>	<b>Career will be modified as desired</b>
<b>Input</b>	<b>Click on the button to modify specific publication</b>
<b>Output</b>	<b>Database will be updated</b>

**Table 21.1: Functional Requirement 21.1**

<b>Function Name</b>	ModifyScientist(ScientistObj)
<b>Description</b>	<b>Scientist can be modified in specific publication</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database connection failure or missing value from database table's attribute.</b>

<b>Cost and schedules</b>	<b>No cost, schedule 2-3 days</b>
<b>Risks</b>	<b>Data may duplicate, Internet Connection Failure, Database Connection Failure,Data Insertion error.</b>
<b>Dependencies with other requirements</b>	<b>Dependent on Login</b>
<b>Pre-condition</b>	<b>User needs to be logged in</b>
<b>Post-condition</b>	<b>Scientist will be modified as desired</b>
<b>Input</b>	<b>Click on the button to modify specific scientist in specific publication</b>
<b>Output</b>	<b>Database will be updated</b>

## 22. Scientist

**Table 22.1: Functional Requirement 22.1**

<b>Function Name</b>	AddAcademicQualification(Qualification)/ RemoveAcademicQualification(Qualification)
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<b>Description</b>	<b>User can add to the scientist to Scientist</b>
<b>Critically</b>	<b>Intermediate</b>
<b>Technical Issues</b>	<b>Database problem on insertion</b>
<b>Cost and schedules</b>	<b>No cost, schedule between 1-3days</b>
<b>Risks</b>	<b>Internet Connection Failure, Database Connection Failure</b>
<b>Dependencies with other requirements</b>	<b>Dependent on login and 36</b>
<b>Pre-condition</b>	<b>User should select the scientist he wants</b>
<b>Post-condition</b>	<b>Scientist data will be updated</b>
<b>Input</b>	<b>Qualification</b>
<b>Output</b>	<b>Database updated</b>



### 23. Career

SetCareerName(CareerName) à set the name of career

### 24. Agenda

**Table 24.1: Functional Requirement 24.1**

<b>Function Name</b>	<b>AddTask(Task,index)/RemoveTask(Task,index) /EditTask(Task,index)</b>
<b>Description</b>	<b>Managerial staff can add, remove or edit Tasks in Agenda</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database retrieval method may happen an error</b>
<b>Cost and schedules</b>	<b>No cost but schedule 2 days.</b>
<b>Risks</b>	<b>Data may duplicate, Internet Connection Failure, Database Connection Failure</b>
<b>Dependencies with other requirements</b>	<b>Dependent on Login and 6.1</b>

<b>Pre-condition</b>	<b>User has to choose what to do with a task whether add/remove/edit</b>
<b>Post-condition</b>	<b>The desired function will be done</b>
<b>Input</b>	<b>Click on the desired button from those three buttons(add or remove or edit) and Task, Index of the task</b>
<b>Output</b>	<b>Database will be updated as the required the user wants</b>

## 25. Tasks

**Table 25.1: Functional Requirement 25.1**

<b>Function Name</b>	<b>SetTask(TaskName,TaskID ,TaskDate)</b>
<b>Description</b>	<b>Managerial staff can add, remove or edit Tasks in Agenda</b>
<b>Critically</b>	<b>High</b>

<b>Technical Issues</b>	<b>Database insertion method may happen an error</b>
<b>Cost and schedules</b>	<b>No cost but schedule 2 days.</b>
<b>Risks</b>	<b>Data may duplicate, Internet Connection Failure, Database Connection Failure</b>
<b>Dependencies with other requirements</b>	<b>Dependent on Login</b>
<b>Pre-condition</b>	<b>Enter task details</b>
<b>Post-condition</b>	<b>The database will be updated</b>
<b>Input</b>	TaskName,TaskID ,TaskDate
<b>Output</b>	<b>Database will be updated as the required the user wants</b>

**Table 25.2: Functional Requirement 25.2**

<b>Function Name</b>	SetDueDate(DueDate)
<b>Description</b>	Set the due date to a task
<b>Critically</b>	High
<b>Technical Issues</b>	Database insertion method may happen an error
<b>Cost and schedules</b>	No cost but schedule 2 days.
<b>Risks</b>	Data may duplicate, Internet Connection Failure, Database Connection Failure
<b>Dependencies with other requirements</b>	Dependent on Login
<b>Pre-condition</b>	Enter task details
<b>Post-condition</b>	The database will be updated

<b>Input</b>	DueDate
<b>Output</b>	<b>Database will be updated as the required the user wants</b>

**Table 25.3: Functional Requirement 25.3**

<b>Function Name</b>	SetTargetMemeber(Array[TargetedMemberID])
<b>Description</b>	<b>Set the names of the targeted member to accomplish a task</b>
<b>Critically</b>	<b>High</b>
<b>Technical Issues</b>	<b>Database insertion method may happen an error</b>
<b>Cost and schedules</b>	<b>No cost but schedule 2 days.</b>

<b>Risks</b>	<b>Data may duplicate, Internet Connection Failure, Database Connection Failure</b>
<b>Dependencies with other requirements</b>	<b>Dependent on Login</b>
<b>Pre-condition</b>	<b>Enter details</b>
<b>Post-condition</b>	<b>The database will be updated</b>
<b>Input</b>	Array[TargetedMemberID])
<b>Output</b>	<b>Database will be updated as the required the user wants</b>







## **4 Interface Requirements**

### **4.1 User Interfaces**

#### **4.1.1 GUI**

The graphical user interface should be straightforward and easy to use to avoid confusion, it should contain access for all available forms and journals to make it easier for all users.

## Illustration of how the Membership form should look like

The image displays two versions of a membership form. On the left is a digital form with the following fields:

- Name: Full Name
- Birth date: DD/MM/YYYY
- Nationality: Choose
- National ID:
- Issuer:
- Release date: DD/MM/YYYY
- Qualifications: A table with 4 rows for qualification details and dates.
- Job Date: DD/MM/YYYY
- Current Job:
- Organization:
- Job Address:
- Mobile:
- Phone:
- Issue Date:
- Signature:
- Recommendations
- Buttons: University Secretary, Board Director

On the right is a scanned Arabic version of the form. It includes a photo, a title 'طلب التحق' (Request to Join), and a paragraph of Arabic text. Below this are fields for personal information, qualifications, and job details, all filled with handwritten Arabic text. At the bottom, there are fields for 'رقم وتاريخ إيصال تنفيذ رسم القيد' (Registration fee receipt number and date) and 'توقيع مدير مجلس الإدارة' (Signature of the Board Director).

### 4.1.2 CLI

No CLI used.

### 4.1.3 API

We may translate API to translate the whole website words and sentences from English language into Arabic language another and this can be done by using Google translate API or IBM Watson Language Translator API.

### 4.1.4 Diagnostics or ROM

Making a web based system.

## 4.2 Hardware Interfaces

1. Printers.
2. Mobile Phones & Tablets.
3. Computers & Laptops

## 4.3 Communications Interfaces

No communications interfaces specified.

## **4.4 Software Interfaces**

No Software Interfaces.

## **5 Performance Requirements**

Recommended Requirements Specifications

- OS: Windows
- RAM: Low
- Storage: Low
- Internet: Required

## **6 Design Constraints**

### **6.1 Standards Compliance**

It is a compliance of a website or web browser to ensure interoperability website do not use software methods

### **6.2 Hardware Limitations**

- Sufficient internet connectivity
- There must be a powerful server with big storage and much super processing as this is a governmental project “Web based system” which will be available for a lot of people therefore bugs and glitches may occur because of long queuing.

## **7 Other non-functional attributes**

### **7.1 Security**

This function leads to architecture change. We must use a high encryption function for username & passwords & images using encrypt/decrypt.

### **7.2 Reliability**

This system has to be clear from bugs, glitches, server downs, over-extension for the queue and this problem will need to be solved by upgrading the server where this project will be put on.

### **7.3 Maintainability**

This project is a web based object oriented system so it can be edited easily by any web developer, also our project got the advantage of free and continued maintenance as it is being used a lot in some important events like symposiums and other scientific campaigns that makes our system need to be working the whole time.

### **7.4 Portability**

This project is highly portable as it is a web based application which can be easily reached by any smart device.

### **7.5 Re-usability**

This project can be easily modified to be used in other similar applications as it contains very common functionalities which are widely used by most software applications nowadays.

### **7.6 Serviceability**

This web based system got a lot of serviceability as the publications of scientific journals for all analytic chemistry fields. Also, as the host for all important events and symposiums.

## **8 Preliminary Object-Oriented Domain Analysis**

### **Part One: CRC**

- 1.

## Front

<b>Class Name:</b> User	<b>Id:</b> 1	<b>Type:</b> Concrete, SuperClass
<b>Description:</b> A Class that has all the system's user's profile and all their data despite their types.		
<b>Responsibilities</b> <ul style="list-style-type: none"><li>- + ViewAccount()</li><li>- + EditAccount() + Login(Username, Password): bool + Logout()</li><li>- + RecordLogin(LoginDate, LoginTime) + ValidateLogin(Username, Password): bool</li><li>- + GuestLogin(): GuestID</li><li>- + ForgetPassword(Email): bool</li><li>- + GetRegDate(): date</li><li>- + RequestSymposiaAdmission(Request) + RequestSympAttend(Request)</li></ul>	<b>Collaborators</b> <ul style="list-style-type: none"><li>- Request</li></ul>	

## Back

<b>Attributes</b>	
UserID(Int)	UserType(String)

UserName(String)	LastName(string)
password(String)	
FirstName(String)	phone(int)
Email(String)	Birthdate(date)
Address(String)	Gender(string)
LoginDate(date)	LoginTime(time)
LoginStatus(string)	RegisterDate(date)
<b>Relationships</b>	
<b>Generalization (A Kind Of):</b>	-
<b>Aggregation (Part-of):</b>	-
<b>Other Association:</b>	<ul style="list-style-type: none"> <li>- Register</li> <li>- Symposia</li> </ul>

--	--

2.

**Front**

<b>Class Name:</b> Registration		<b>Type:</b> Concrete
<b>Description:</b> A class to help register to make new account		
<div><div>Responsibilities</div><div>+ Register(RegistarionForm): bool</div><div>+ ValidateUsername(Username): bool</div><div>+ ValidateEmail(Email): bool</div><div>+ ValidatePassword(Password): bool</div><div>+ ValidatePreviousUser()</div><div>+ SetRegDate(RegDate)</div></div>		<div>Collaborators</div>

**Back**

<b>Attributes</b>	
NewUserID(int)	NewUsername(string)
NewLastName( string)	NewFirstName(string)
NewEmail(string)	NewPassword(string)
ConfirmPassword(string)	NewAddress(string)
NewPhone:(int)	NewBirthDate( date)
NewGender(string)	NewUserType(string)
RegistrationFees(int)	
<b>Relationships</b>	



<b>Generalization (A Kind Of):</b>	
<b>Aggregation (Part-of):</b>	
<b>Other Association:</b>	

3.

<b>Front</b>		
<b>Class Name:</b> Symposia		<b>Type:</b> concrete
<b>Description:</b> A class which manage Date and time and calculate the number of attendants		

Responsibilities	Collaborators
<ul style="list-style-type: none"> <li>- + GetAttendeeIDs(): ListAttendeeIDs</li> <li>- + SetSubject(SympSubject)</li> <li>- + SetDate(SympDate)</li> <li>- + SetTime(SympTime)</li> <li>- + SetLocation(SympLocation)</li> </ul>	-

Back

Attributes	
SympID( int)	SympTime: time
SympDate(date)	SympName( string)
ListAttendeeIDs: array[int]	SympSubject( string )

<b>Relationships</b>	
<b>Generalization (A Kind Of):</b>	-
<b>Aggregation (Part-of):</b>	-
<b>Other Association:</b>	President,Request,user

4.

<b>Front</b>		
<b>Class Name:</b> Members		<b>Type:</b> Subclass, concrete
<b>Description:</b> A class which perform task from agenda and make most of the membership's functions		

### Responsibilities

- +MakeMembership(MembershipForm)
- +  
FillMForm(Nationallity,AcademicQ,DateQ,DateP  
,JobA)
- +  
RenewMemberShip(EnrollmentDate)
- +  
SubmitForm(MembershipForm)
- +  
PerformTaskFromAgenda(Task)
- 

### Collaborators

- Membership
- Task

**Back**

**Attributes**

Nationality(String)	
Date of Qualification(Date)	
Date of profession(Date)	
Address(String)	
Date of enrollment(Date)	
<b>Relationships</b>	
<b>Generalization (A Kind Of):</b>	User
<b>Aggregation (Part-of):</b>	
<b>Other Association:</b>	Membership, E-Agenda

## Front

<b>Class Name:</b> Payment Method	<b>Id:</b> 5	<b>Type:</b> concrete
<b>Description:</b> A Class used for payment		
<b>Responsibilities</b> <ul style="list-style-type: none"><li>- + AddCreditCard(CardNumber, Exp, CVC)</li><li>- + VerifyCreditCard(): bool</li><li>- + CalTenderedPayment(PayAmount): int</li><li>- + GetPayValues(): List[string]</li><li>- + SetPayValues(List[string])</li><li>-</li></ul>	<b>Collaborators</b> <ul style="list-style-type: none"><li>-</li></ul>	

## Back

<b>Attributes</b>	
PayMethodID(Int)	PayValues: List[string]

PayMethodName(string)	
<b>Relationships</b>	
<b>Generalization (A Kind Of):</b>	-
<b>Aggregation (Part-of):</b>	
<b>Other Association:</b>	-

6.

Front

<b>Class Name:</b> Payment		<b>Type:</b> concrete
<b>Description:</b> Class which all the users can pay money and add it to the user's account		
<p style="text-align: center;"><b>Responsibilities</b></p> <ul style="list-style-type: none"> <li>- + AddPayMethod(PaymentMethod)</li> <li>- + DeletePaytMethod(PaymentMethod)</li> <li>- + EditPayMethod(PaymentMethod)</li> <li>- + GetPayStatus(): bool</li> <li>- + PrintInvoice()</li> <li>- + RecordPayment(ReceiptNumber): bool</li> <li>-</li> </ul>	<p style="text-align: center;"><b>Collaborators</b></p> <p style="text-align: center;"><b>PaymentMethod</b></p> <p style="text-align: center;">-</p>	

**Back**

**Attributes**



userID(int)	PayID(int)
PayType: string	PayAmount: int
PayStatus: bool	PayMethod: PaymentMethod
<b>Relationships</b>	
<b>Generalization (A Kind Of):</b>	-
<b>Aggregation (Part-of):</b>	
<b>Other Association:</b>	-

## Front

<b>Class Name:</b> ManagerialDpt		<b>Type:</b> Subclass, Concrete, Superclass
<b>Description:</b> A class which can control journals, can accept membership and can manage the report		
<b>Responsibilities</b> <ul style="list-style-type: none"><li>-</li><li>+ MonitorMembers(Members)</li><li>+ ManageTasks(tasks)</li><li>+ ManageSymposia(Symposia)</li></ul>	<b>Collaborators</b> <ul style="list-style-type: none"><li>- Task</li><li>- Symposia</li><li>- Members</li></ul>	

## Back

**Attributes**

Start Date(Date)	
End Date(Date)	
position(String)	
E-Agenda(obj)	
<b>Relationships</b>	
<b>Generalization (A Kind Of):</b>	User, Vicepresident, Secretary, President, cashair
<b>Aggregation (Part-of):</b>	-
<b>Other Association:</b>	Membership, Journal, Donation, E-Agenda

8.

## Front

<b>Class Name:</b> Guest		<b>Type:</b> Subclass, concrete
<b>Description:</b> A class that can attend symposia or hold one.		
<b>Responsibilities</b> <ul style="list-style-type: none"><li>- +void ViewSymposia()</li><li>- +void ViewCalendar()</li><li>- +void ViewJournal()</li><li>- + Register(): bool</li><li>- + PayRegistartionFees(Pay Amount): bool</li><li>- + RequestSymposiaAddmission(): bool</li></ul>		<b>Collaborators</b>

## Back

<b>Attributes</b>	
GuestID: int	GuestUsername: string

<b>Relationships</b>	
<b>Generalization (A Kind Of):</b>	Non-Managerial
<b>Aggregation (Part-of):</b>	-
<b>Other Association:</b>	Managerial

9.

## Front

<b>Class Name:</b> Membership		<b>Type:</b> concrete
<b>Description:</b> A class that shows us who has a membership or not (checking the user's state)		
<b>Responsibilities</b> <ul style="list-style-type: none"><li>- +CheckState(EnrollmentDate): bool</li><li>-</li><li>-</li></ul>	<b>Collaborators</b> <ul style="list-style-type: none"><li>-</li></ul>	

## Back

<b>Attributes</b>	
State(Int)	memberID(int)

State of Form(String)	
MembershipFee(Int)	
<b>Relationships</b>	
<b>Generalization (A Kind Of):</b>	-
<b>Aggregation (Part-of):</b>	-
<b>Other Association:</b>	<b>payment</b>

## Front

<b>Class Name:</b> Journal		<b>Type:</b> concrete
<b>Description:</b> A class that manage the publication(edit, Remove, Add, Send, Hide)		
<b>Responsibilities</b> <ul style="list-style-type: none"><li>- +void AddPub(Publication)</li><li>- +void RemovePub(Publication)</li><li>- +void EditPub(Publication)</li><li>- +void SendPub(Publication)</li><li>- +void HidePub(Publication)</li></ul>	<b>Collaborators</b> <ul style="list-style-type: none"><li>- Publication</li></ul>	

## Back

<b>Attributes</b>	
Name(String)	



Category(String)	JournalID: int
Publication(List Obj)	
<b>Relationships</b>	
<b>Generalization (A Kind Of):</b>	-
<b>Aggregation (Part-of):</b>	-
<b>Other Association:</b>	-

## Front

<b>Class Name:</b> Publication		<b>Type:</b> Concrete
<b>Description:</b> A class which is able to Add, send, hide and remove scientist and also able to add, sned, hide, remove career		
<b>Responsibilities</b> <ul style="list-style-type: none"><li>- +void AddScientist(Scientist)</li><li>- +void RemoveScientist(Scientist)</li><li>- +void EditScientist(Scientist)</li><li>- +void SendScientist(Scientist)</li><li>- +void HideScientist(Scientist)</li><li>- +void AddCareer(Career)</li><li>- +void RemoveCareer(Career)</li><li>- +void EditCareer(Career)</li><li>- +void SendCareer(Career)</li><li>- +void HideCareer(Career)</li></ul>		<b>Collaborators</b> <ul style="list-style-type: none"><li>- Scientist</li><li>- Career</li></ul>

## Back

**Attributes**

Public ID(Int)	Scientist(List Obj)
Title(String)	Career(List Obj )
Abstract(String)	PublicationID(int)
Publication Date(Date)	
<b>Relationships</b>	
<b>Generalization (A Kind Of):</b>	-
<b>Aggregation (Part-of):</b>	Journal
<b>Other Association:</b>	-

12.

### Front

<b>Class Name:</b> Scientist		<b>Type:</b> Concrete
<b>Description:</b> A class which can manage academic qualifications by Removing and adding it		
<b>Responsibilities</b> <ul style="list-style-type: none"><li>- +void editName(Name)</li><li>- +void addAcademicQual(AcqUAL)</li><li>- +void RemoveAcademic(AcqUal)</li></ul>	<b>Collaborators</b>	

### Back

<b>Attributes</b>	
ScientistName(String)	ScientistID: int

ScientistNationality(String)	
ScientistID(Int)	
AcademicQualifications(String)	
<b>Relationships</b>	
<b>Generalization (A Kind Of):</b>	-
<b>Aggregation (Part-of):</b>	Publication
<b>Other Association:</b>	Career

**Front**

<b>Class Name:</b> Career		<b>Type:</b> concrete
<b>Description:</b> A class that can includes the career		
<b>Responsibilities</b>  - +void EditCareerName(CareerNa me)	<b>Collaborators</b>  -	

**Back**

<b>Attributes</b>	
Career ID(Int)	

Career Name(String)	
Scientist ID(Int)	
<b>Relationships</b>	
<b>Generalization (A Kind Of):</b>	-
<b>Aggregation (Part-of):</b>	Publication
<b>Other Association:</b>	-

14.

<b>Front</b>
--------------

<b>Class Name:</b> DonationsDetails		<b>Type:</b> Concrete
<b>Description:</b> A Class that send reports about donations and record all the donar's information and includes the details of the donations		
<b>Responsibilities</b>  <ul style="list-style-type: none"> <li>- +Send donationReport(Report)</li> <li>- +SearchDonorID()</li> </ul>	<b>Collaborators</b>  -	

**Back**

<b>Attributes</b>	
Donation ID(Int)	User ID(Int)
Donation Amount(Int)	



Date Of Donation(Date)	
Time Of Donation(Time)	
Donation Purpose(String)	
<b>Relationships</b>	
<b>Generalization (A Kind Of):</b>	-
<b>Aggregation (Part-of):</b>	-
<b>Other Association:</b>	payment

15.

<b>Front</b>		
<b>Class Name:</b> Task	<b>Id:</b> 16	<b>Type:</b> Concrete

**Description:** A class which manages the tasks for the agenda.

### Responsibilities

- +void EditNameOftask(NT)
- +void EditDueDate(DD)
- +void EditTargetM(List char NameOfTargetedMemberin dex)
- + RenameTask(TaskName)
- + SetDueDate(DueDate)
- + SetTargetMemeber(Array[Targeted MemberID])

### Collaborators

-

## Back

### Attributes

Name Of Task(String)

Name Of Targeted Member(String)

Due Date(Date)

TaskID(int)

Date Of Task(Date)	
Name Of Member(String)	
<b>Relationships</b>	
<b>Generalization (A Kind Of):</b>	-
<b>Aggregation (Part-of):</b>	E-Agenda
<b>Other Association:</b>	-

16.

<b>Front</b>		
<b>Class Name: VicePresident</b>		<b>Type: interface,subclass</b>

<b>Description: class that classifies the vice president's functions</b>		
<b>Responsibilities</b> <ul style="list-style-type: none"><li>- + ManageJournal()</li><li>- + ManageAgenda()</li><li>- +ManageManagerialHierarcy()</li></ul>	<b>Collaborators</b>	



**Back**

<b>Attributes</b>	

<b>Relationships</b>	
<b>Generalization (A Kind Of):</b>	
<b>Aggregation (Part-of):</b>	
<b>Other Association:</b>	<b>Agenda</b>  Journal

17.

**Front**

<b>Class Name:</b> Secretary		<b>Type:</b> concrete,subclass
<b>Description:</b> A Class that responsible for secretary's job		
<p><b>Responsibilities</b></p> <ul style="list-style-type: none"> <li>- +void RemoveUser(User)</li> <li>- +void AddUser(User)</li> <li>- +void EditUser(User)</li> <li>- +void SendEmails&gt;Email)</li> <li>- +void PrepareAgenda()</li> <li>- +void AnnouceMeeting(date,time, purpose)</li> </ul>	<p><b>Collaborators</b></p> <p>User</p> <p>Agenda</p> <p>-</p>	

**Back**

<b>Attributes</b>	

<b>Relationships</b>	
<b>Generalization (A Kind Of):</b>	-
<b>Aggregation (Part-of):</b>	-
<b>Other Association:</b>	<b>Agenda, User</b>

18.

<b>Front</b>
--------------

<b>Class Name:</b> president		<b>Type:</b> concrete,subclass
<b>Description:</b> A class which shows the responsibilities of the President		
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>- + OrganizeSymposia()</li> <li>- + AgendaApproval()</li> <li>- + SigningAgreements()</li> </ul>	<b>Collaborators</b> <ul style="list-style-type: none"> <li>-</li> </ul>	

**Back**

<b>Attributes</b>	
- PresidencyTerm: (int )	



<b>Relationships</b>	
<b>Generalization (A Kind Of):</b>	-
<b>Aggregation (Part-of):</b>	
<b>Other Association:</b>	<b>-agenda</b>

19.

<b>Front</b>		
<b>Class Name:</b> Agenda		<b>Type:</b> Concrete

<b>Description:</b> A class which shows the agenda and the schdeule			
<table border="1"><tr><td><b>Responsibilities</b><ul style="list-style-type: none"><li>- +void AddTask(Task,index)</li><li>- +void RemoveTask(Task,index)</li><li>- +void EditTask(Task,index)</li><li>- +void SendTask(Task,index)</li></ul></td><td><b>Collaborators</b>  Task</td></tr></table>	<b>Responsibilities</b> <ul style="list-style-type: none"><li>- +void AddTask(Task,index)</li><li>- +void RemoveTask(Task,index)</li><li>- +void EditTask(Task,index)</li><li>- +void SendTask(Task,index)</li></ul>	<b>Collaborators</b>  Task	
<b>Responsibilities</b> <ul style="list-style-type: none"><li>- +void AddTask(Task,index)</li><li>- +void RemoveTask(Task,index)</li><li>- +void EditTask(Task,index)</li><li>- +void SendTask(Task,index)</li></ul>	<b>Collaborators</b>  Task		



**Back**

<b>Attributes</b>	
-List Obj Task	AgendaID(int)
-	

-	
-	
-	
<b>Relationships</b>	
<b>Generalization (A Kind Of):</b>	-
<b>Aggregation (Part-of):</b>	-
<b>Other Association:</b>	-

20

<b>Front</b>		
<b>Class Name:</b> Cashier		<b>Type:</b> Concrete

<b>Description:</b> A class which shows responsibilities of cashier			
<table border="1"><tr><td><b>Responsibilities</b><ul style="list-style-type: none"><li>- + RecordPayments()</li><li>- + PrintPaymentReports()</li><li>- + ViewPaymentRecords()</li><li>- + ViewDonationRecords()</li><li>- + RequestLoan()</li></ul></td><td><b>Collaborators</b></td></tr></table>	<b>Responsibilities</b> <ul style="list-style-type: none"><li>- + RecordPayments()</li><li>- + PrintPaymentReports()</li><li>- + ViewPaymentRecords()</li><li>- + ViewDonationRecords()</li><li>- + RequestLoan()</li></ul>	<b>Collaborators</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"><li>- + RecordPayments()</li><li>- + PrintPaymentReports()</li><li>- + ViewPaymentRecords()</li><li>- + ViewDonationRecords()</li><li>- + RequestLoan()</li></ul>	<b>Collaborators</b>		



**Back**

<b>Attributes</b>	
-	
-	

-	
-	
-	
<b>Relationships</b>	
<b>Generalization (A Kind Of):</b>	-
<b>Aggregation (Part-of):</b>	-
<b>Other Association:</b>	<b>DonationsDetails,Payment</b>

21.

<b>Front</b>		
<b>Class Name:</b> BoardMembers		<b>Type:</b> concrete,subclass

**Description:** A Class shows the responsibilities of board members

**Responsibilities**

- + AcceptRegistrations(registration)
- + ManageAgenda(Agenda)
- + ApprovalAgreements()

**Collaborators**

**Registration**

Agenda

-

**Back**

**Attributes**

<b>Relationships</b>	
<b>Generalization (A Kind Of):</b>	-
<b>Aggregation (Part-of):</b>	-
<b>Other Association:</b>	<b>Agenda, Registration</b>

22.

<b>Front</b>
--------------

<b>Class Name:</b> requestDetails		<b>Type:</b> concrete
<b>Description:</b> A class which shows the requests' details of attendance/event handling		
<p style="text-align: center;"><b>Responsibilities</b></p> <ul style="list-style-type: none"> <li>- +getRequestID(RequestID)</li> <li>+editRequestType(RequestID)</li> <li>+checkRequestState(ReqState):bool</li> <li>+ CheckRequestType(RequestType): bool</li> </ul>	<p style="text-align: center;"><b>Collaborators</b></p> <ul style="list-style-type: none"> <li>-</li> </ul>	

**Back**

<b>Attributes</b>	
- RequestID(int)	ReqT(bool)
RequestType(string)	UserID(int)



RequestState(bool)	
<b>Relationships</b>	
<b>Generalization (A Kind Of):</b>	-
<b>Aggregation (Part-of):</b>	
<b>Other Association:</b>	

23

<b>Front</b>		
<b>Class Name:</b> iDonate		<b>Type:</b> interface

<p><b>Description:</b> A class includes the necessary function for guest and member</p>	
<p><b>Responsibilities</b></p> <ul style="list-style-type: none"><li>- +Donate(DonationAmount)</li><li>+ConfirmDonation(DonationID)</li><li>+CancelDonation(DonationID)</li></ul>	<p><b>Collaborators</b></p>

**Back**

<p><b>Attributes</b></p>	
-	

-	
-	
-	
<b>Relationships</b>	
<b>Generalization (A Kind Of):</b>	-
<b>Aggregation (Part-of):</b>	-
<b>Other Association:</b>	-

24

<b>Front</b>		
<b>Class Name:</b> iPay		<b>Type:</b> interface

<p><b>Description:</b> A class which shows functions necessary to pay</p>			
<table border="1"><tr><td><p><b>Responsibilities</b></p><ul style="list-style-type: none"><li>- +Pay(obj Payment)</li><li>+ConfirmPayment(obj Payment)</li><li>+CancelPayment(obj Payment)</li></ul></td><td><p><b>Collaborators</b></p><p>Payment</p></td></tr></table>	<p><b>Responsibilities</b></p> <ul style="list-style-type: none"><li>- +Pay(obj Payment)</li><li>+ConfirmPayment(obj Payment)</li><li>+CancelPayment(obj Payment)</li></ul>	<p><b>Collaborators</b></p> <p>Payment</p>	
<p><b>Responsibilities</b></p> <ul style="list-style-type: none"><li>- +Pay(obj Payment)</li><li>+ConfirmPayment(obj Payment)</li><li>+CancelPayment(obj Payment)</li></ul>	<p><b>Collaborators</b></p> <p>Payment</p>		



**Back**

<p><b>Attributes</b></p>	
<p>-</p>	
<p>-</p>	

-	
-	
-	
<b>Relationships</b>	
<b>Generalization (A Kind Of):</b>	-
<b>Aggregation (Part-of):</b>	-
<b>Other Association:</b>	

25.

<b>Front</b>
--------------

<b>Class Name:</b> iRequest		<b>Type:</b> interface
<b>Description:</b> A class includes the necessary function for guest and member to request a symposia whatever to attend or to make one		
<p style="text-align: center;"><b>Responsibilities</b></p> <ul style="list-style-type: none"> <li>- +getReqType (params):return Type</li> <li>- + AddRequest(ReqT)</li> <li>- + DeleteRequest(ReqT)</li> <li>- + EditRequest(ReqT)</li> </ul>	<p style="text-align: center;"><b>Collaborators</b></p>	

**Back**

<b>Attributes</b>	
-	

-	
-	
-	
<b>Relationships</b>	
<b>Generalization (A Kind Of):</b>	-
<b>Aggregation (Part-of):</b>	-
<b>Other Association:</b>	-

## 9 Operational Scenarios

Scenario for Non-managerial attend to symposia

Initial assumption: Non-members(Guest) send request for managerial staff to attend the symposium.

Normal:

- Members prepare for the symposium.
- Non- managerial send requests for members and fill the form.
- Then getting the approval from the non-managerials.

What can go wrong:

1. Missing information in the form
2. Deny the request.
3. The limit of symposia won't be accurately calculated which will lead to problems with the attendance number.

System state on completion:

If accepted, the attendant will be able to attend the symposia and will be recorded in a database. Else he will contact the managerial staff to handle if there is a problem other than that he won't attend or be recorded in the database.



## **10 Preliminary Schedule Adjusted**

## **11 Preliminary Budget Adjusted**

## **12 Appendices**

### **12.1 Definitions, Acronyms, Abbreviations**

- EGSAC : Egyptian society of analytical chemistry.
- Symposium : conferences or events
- ACS : American chemistry society
- AOAC: Association of official agricultural chemists

### **12.2 Collected material**

#### **1.Screenshots of similar systems we found online**



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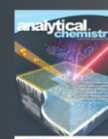
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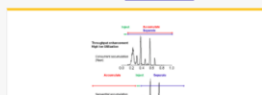
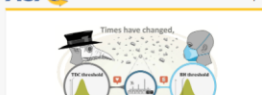
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# Analytical Chemistry



## What Is Analytical Chemistry?

Analytical chemistry is the science of obtaining, processing, and communicating information about the composition and structure of matter. In other words, it is the art and science of determining what matter is and how much of it exists. In 2012 (salary survey data), analytical chemistry was the most popular field of work for ACS chemists.

### Career Areas for Analytical Chemists

- Agriculture and Food
- Biotechnology
- Medicine

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# لائحة النظام الأساسي

لجمعية :

المقيدة تحت رقم : بتاريخ : / /

بمديرية الشؤون الاجتماعية بـ .....

طبقاً لأحكام القانون ٨٤ لسنة ٢٠٠٢

بشأن

الجمعيات والمؤسسات الأهلية

بإدارة : ..... للشؤون الاجتماعية

عنوان مقر الجمعية :

ميدان عمل الجمعية :

## الفصل الثاني النواحي المالية

### مادة (٦)

#### موارد الجمعية وطريقة استغلالها:

أولاً : الموارد وتتكون من :

١. اشتراكات الاعضاء
  ٢. التبرعات - الهبات - الوصايا - الهدايا - المعونات
  ٣. الإعانات الحكومية
  ٤. الموارد الأخرى التى يوافق عليها مجلس الإدارة مع مراعاة أحكام المادة ١٧ من القانون والمواد ( ٥٦ ، ٥٧ ، ٥٨ ) من اللائحة التنفيذية
  ٥. حصيلة إقامة الأسواق الخيرية والمعارض والمباريات الرياضية.
  ٦. العائد من استثمار أموالها أو من مشاريعها الإنتاجية والخدمية.
- ثانياً : تبدأ السنة المالية للجمعية من / / وتنتهى فى / / من كل عام.
- ثالثاً: تودع أموال الجمعية باسمها التى قيدت به لدى بنك (.....) فرع (.....) أو صندوق توفير فرع (.....).
- رابعاً: يشترط لصرف أى مبالغ من أموال الجمعية أن يوقع على أذن الصرف كل من أمين الصندوق ورئيس مجلس إدارة الجمعية أو من ينوب عن رئيس مجلس الإدارة.

### مادة (٧)

١. أموال الجمعية مخصصة للصرف منها على تحقيق أغراضها بصفة أساسية.
٢. للجمعية الحق فى تملك العقارات بما يمكنها من تحقيق أغراضها على أن

## الفصل الثالث العضوية

### مادة (١٤)

#### يشترط في عضو الجمعية ما يأتي:

- ١- أن يكون حسن السيرة والسلوك.
- ٢- ..... (مؤهل / سن / خبرة)
- ٣- أن يقدم طلباً للانضمام مصحوباً برسم العضوية وقدره ..... وان يوضح في هذا الطلب اسمه ولقبه وسنه وجنسيته ومحل إقامته ومهنته وطريقة سداد رسم العضوية. ولا يعطى سداد رسم العضوية أى حقوق لطالب الانضمام قبل صدور قرار مجلس الإدارة بقبوله عضواً بالجمعية.
- ٤- .....
- ٥- .....

### مادة (١٥)

- تنقسم العضوية إلى عضو (عامل / منتسب / فخري).
- ١- العضو العامل: هو العضو الذى اشترك فى تأسيس الجمعية منذ إنشائها أو تقدم بطلب انضمامه للجمعية واستوفى شروط العضوية وقبل مجلس الإدارة عضويته وله حق حضور الجمعية العمومية، وحق الترشيح لعضوية مجلس الإدارة.
  - ٢- العضو المنتسب: هو العضو الذى لا تتوافر فيه جميع شروط العضوية الكاملة ويقرر مجلس الإدارة قبوله عضواً منتسباً.



## الفصل الرابع أجهزة الجمعية واختصاص كل منها

### أولاً: الجمعية العمومية

#### مادة (٢٠)

تتكون الجمعية العمومية من جميع الأعضاء المؤسسين والعاملين الذين على عضويتهم ..... شهر / سنة (٦ أشهر على الأقل) وأوفوا بالالتزام المفروضة عليهم

#### مادة (٢١)

تتعقد الجمعية العمومية بكتاب مسجل بعلم الوصول يوجه لكل من أعضاء الذين لهم حق الحضور أو تسلم العضو الدعوة شخصياً مقابل توقيعهم بالالتزام يبين فيها مكان الاجتماع وموعده وجدول الأعمال وتوجه هذه الدعوة من أي أ. مجلس الإدارة.

ب. من يفوضه ٢٥٪ من عدد الأعضاء الذين لهم حق حضور الجمعية العمومية.

ج. المفوض المعين طبقاً للمادة (٤٠) من القانون.

د. الجهة الإدارية إذا رأت ضرورة لذلك.

#### مادة (٢٢)

يكون انعقاد الجمعية العمومية في مقر المركز الرئيسي للجمعية، كما انعقادها في أي مكان آخر بنفس المحافظة يحدد في خطاب الدعوة.

## الفصل الخامس حل الجمعية

### مادة ( ٤٤ )

إذا اتضح لمجلس الإدارة ان الجمعية اصبحت عاجزة عن تحقيق اغراضها فله دعوة الجمعية العمومية غير العادية للانعقاد على ان يرفق بالدعوة تقرير فى هذا الشأن بمعرفة الجمعية العمومية غير العادية وإصدار القرار الذى تراه مناسبا سواء بحل الجمعية ا اندماجها فى جمعية اخرى تعمل فى ذات الميدان.

فإذا قررت الجمعية العمومية غير العادية حل الجمعية وجب ان يصدر بذلك قرار منها، على ان يتضمن قرار الحل تعيين مصف او اكثر وتحديد مدة التصفية واتعاب المصفى واطار الجهة الادارية والاتحاد المختص. إذا قررت الجمعية العمومية غير العادية اندماج الجمعية فى غيرها فيجب إخطار الجهة الادارية بذلك لاستصدار القرار اللازم بعد موافقة الجمعية المطلوب الاندماج فيها.

القاهرة فى : / /

الأمين العام ( السكرتير )

الرئيس

الاسم :	.....	الاسم :	.....
التوقيع :	.....	التوقيع :	.....

## الفصل الخامس حل الجمعية

### مادة ( ٤٤ )

إذا اتضح لمجلس الإدارة ان الجمعية اصبحت عاجزة عن تحقيق اغراضها فله دعوة الجمعية العمومية غير العادية للانعقاد على ان يرفق بالدعوة تقرير فى هذا الشأن بمعرفة الجمعية العمومية غير العادية وإصدار القرار الذى تراه مناسبا سواء بحل الجمعية ا اندماجها فى جمعية اخرى تعمل فى ذات الميدان.

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القاهرة فى : / /

الأمين العام ( السكرتير )

الرئيس

الاسم :	.....	الاسم :	.....
التوقيع :	.....	التوقيع :	.....

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