Fusion ERP

Software Requirements Specification

for

SA-3 - GYMKHANA

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1. Introduction

1.1 Introduction about the Fusion – A brief Description

FusionIIIT, a testament to seamless integration and automation at PDPM Indian Institute of Information Technology, Design and Manufacturing, Jabalpur, embodies precision through Python 3.8 and the Django Web framework. Initiated and driven by students, this endeavor aims to elevate the institute's operational landscape comprehensively. From streamlining administration management to enhancing academic excellence and addressing miscellaneous departmental

tasks, FusionIIIT is a holistic solution that seamlessly harmonizes the intricacies of campus life.

Picture it as a digital wizard overseeing everything, from organizing administrative tasks to facilitating smoother academic processes. Its scope extends beyond the conventional, diving into various departments and sections to ensure every facet of campus life runs seamlessly. On the administrative side, FusionIIIT efficiently manages complex paperwork and processes. In academics, it introduces a digital touch, simplifying learning and course management. But it goes beyond these realms; FusionIIIT serves as a friendly companion to all corners of the campus, ensuring optimal functionality.

In essence, FusionIIIT is more than just a tool; it's a helpful companion, making life at PDPM IIITDM Jabalpur organized and enjoyable for everyone.

1.2   Purpose of the module:

The purpose of the document is to gather and analyze and give an in-depth insight of the complete Student Gymkhana System of IIITDM Jabalpur. It will define the users and functionality of the Software.

Also, we shall predict and sort out how we hope this product will be used in order to gain a better understanding of the Software, outline concepts that may be developed later, and document ideas that are being considered, but may be discarded as the product develops. This document describes the project's target audience and its user interface, hardware and software requirements. It defines how our client, team and audience see the product and its functionality. Nonetheless, it helps any designer and developer to assist in Software Development Lifecycle (SDLC) processes.

1.3   Scope of the module

The Software System Gymkhana which is available as a Online Web Services Portal and as a mobile application to make various events and activities of Gymkhana easier with various tools. Accessing the information and performing

certain activities will be easy using the Software. Software will facilitate various Gymkhana Activities and Administration.

2. User/Actor characteristics

2.1 Dean:

It play a vital role in representing and advocating for student interests, fostering a vibrant campus culture. They serve as a key liaison between students and the administration, contributing to the dynamic and inclusive nature of the campus community.

Role: The Student Dean takes on responsibilities such as reviewing budgets, generating reports, and overseeing position holders. Their multifaceted role involves financial oversight, administrative reporting, and ensuring the effective functioning of key leadership positions within the organization.

Specific Functionality

1. View Budget
2. Generate Report
3. View Position Holder·

2.2 Counsellor:

· As a Gymkhana counselor, the role involves not only providing emotional support but also actively managing clubs, updating budgets, generating

reports, and overseeing administrative functions, contributing to the holistic well-being and organizational efficiency within the campus community.

Role:

As a Gymkhana counselor, the multifaceted role includes tasks such as viewing and updating budgets, managing clubs, generating reports, overseeing position holders, viewing club members, and maintaining the event calendar. This dynamic function contributes to both the emotional well-being of students and the efficient operation of various activities within the organization.

Specific Functionalities:

1. Manage Clubs
2. View/Update budget
3. Generate Report
4. Manage Position Holder
5. View Club member
6. View event calendar

2.3 Convenor:

As a Gymkhana club convenor in cultural, sports, or technical domains, the role involves orchestrating and managing respective club activities, fostering participation, and ensuring the successful execution of events to enhance the diverse and dynamic extracurricular landscape of the institution.

Role:

As the convenor in cultural, sports, or technical domains within Gymkhana, the role encompasses tasks such as managing event calendars, overseeing club memberships, allocating budgets, generating reports, and making announcements. This multifaceted responsibility involves ensuring the smooth

operation and success of various club activities, maintaining financial transparency, and fostering effective communication within the club and the broader organization.

Specific Functionalities:

1. View Event Calender
2. View Club member
3. Budget Allocation
4. Generate Report
5. Make Announcements

2.4 Club Coordinator (Student):

Represent a person who is accountable for managing different activities like managing club members, calenders, generating reports etc.
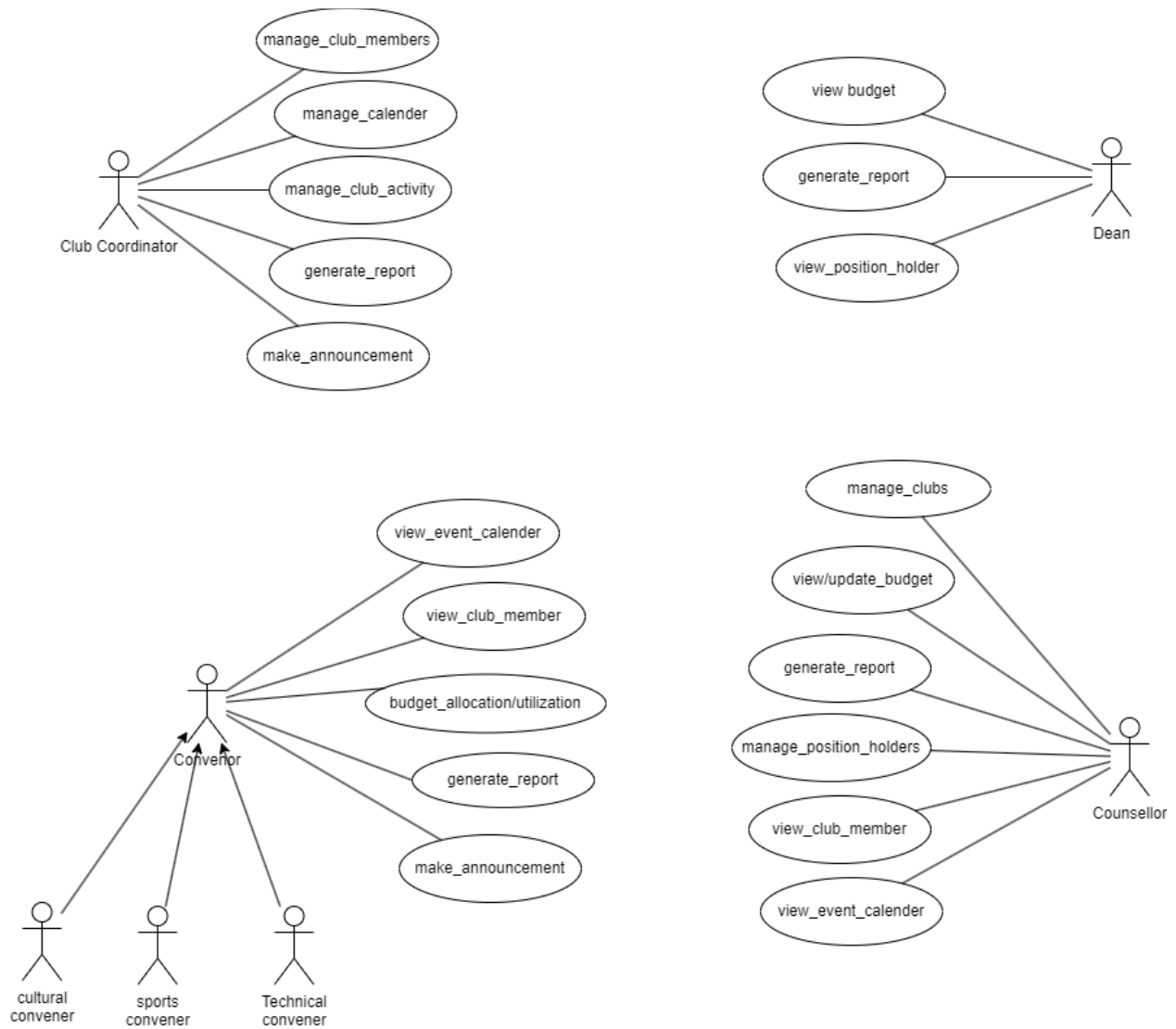
Role: The club coordinator oversees and coordinates the activities of the club, ensuring smooth operation, effective communication, and alignment with organizational goals.

Specific Functionalities:

1. Manage Club Members
2. Manage club calenders
3. Manage club activity
4. Generate Report
5. Make announcements

3. Functional Requirements

3.1   Use Case Diagram

3.2 Use case Description

UC ID	UC#1	
Use case Name	View_budget	

Description	The "View Budget" use case allows the Dean of the college hostel to review, approve, reject, edit, cancel, and view_budget for the visitor hostel through the Fusion portal.		
Actor	Dean		
Precondition	The dean is logged in into the system.		
Main Flow	1	The Dean navigates to the "View_budget" section.	
	2	The system displays the list of Budget with its respective information.	
	3	The Dean selects a Budget to review. [A1][A2]	
	4	The Dean views the respective Budget. [A3][A4]	
Post conditions	The Budget information is viewed by the Dean.		
Alternate Flow	A1	1	The request is pending. The dean selects the View_Budget action.
		2	The system updates the Budget status to "Approved" and the same is reflected to the Intender.
Sub Flow	NIL		

Global Alternate Flow	GA1	If a technical error occurs during the execution of any action (e.g., database failure, server issues), the system displays an error message and logs the incident.

UC ID	UC#2	
Use case Name	View_position_holder	
Description	The "View Position Holder" allows the Dean to access and review information related to position holders associated with the College Management System. Position holders may include individuals or entities responsible for specific roles or responsibilities within the hostel's operations.	
Actor	Dean	
Precondition	The Dean must be logged into the System with valid credentials.	
Main Flow	1	The Caretaker navigates to the "view_position_holder" section.
	2	The system displays the list of position_holders with its respective status.
	3	The Dean selects a Position_holder to review. [A1][A2]

	4		
Post conditions	The Position_holder section is reviewed by Dean.		
Alternate Flow	A1	1	If there are errors or issues during the retrieval of position holder information, the system displays appropriate error messages, and the Dean may take corrective actions or seek technical support.
Sub Flow	NIL		
Global Alternate Flow	GA1		The system displays a notification to users, including the Dean, informing them about the temporary unavailability of position holder information
	GA2		If a technical error occurs during the execution of any action (e.g., database failure, server issues), the system displays an error message and logs the incident.

UC ID	UC#3	
Use case Name	Generate_report	

Description	The "Generate Report" enables the actors to create comprehensive reports related to his work. This functionality empowers the actors to obtain details insights of the associated Management. The generated reports serve as valuable tools for strategic decision-making, financial planning, and performance analysis.		
Actor	Dean ,Club-Corodinator , Convenor, Counsellor		
Precondition	The actor is logged in into the system.		
Main Flow	1	The Actor navigates to the "Report" section.	
	2	The system displays the query to generate reports.	
	3	The actors press the generate button for report generation. [A1][A2]	
	4	The actor views the generated report. [A3][A4]	
Post conditions	The generated report is viewed by actors.		
Alternate Flow	A1	1	The request is pending. The Actor selects the "generate" action.
		2	The system generate the reports .
Sub Flow	NIL		

Global Alternate Flow	GA1	The system displays a notification to users, including the Dean, informing them about the temporary unavailability of report generation services.
	GA2	If a technical error occurs during the execution of any action (e.g., database failure, server issues), the system displays an error message and logs the incident.

UC ID	UC#4	
Use case Name	View_position_holder	
Description	The "View Position Holder" allows the Dean to access and review information related to position holders associated with the College Management System. Position holders may include individuals or entities responsible for specific roles or responsibilities within the hostel's operations.	
Actor	Dean	
Precondition	The Dean must be logged into the System with valid credentials.	
Main Flow	1	The Caretaker navigates to the "view_position_holder" section.
	2	The system displays the list of position_holders with its respective status.

	3	The Dean selects a Position_holder to review. [A1][A2]
	4	
Post conditions		The Position_holder section is reviewed by Dean.
Alternate Flow	A1	1	If there are errors or issues during the retrieval of position holder information, the system displays appropriate error messages, and the Dean may take corrective actions or seek technical support.
Sub Flow		NIL
Global Alternate Flow	GA1	The system displays a notification to users, including the Dean, informing them about the temporary unavailability of position holder information
	GA2	If a technical error occurs during the execution of any action (e.g., database failure, server issues), the system displays an error message and logs the incident.

UC ID	UC#05
Use case Name	Manage_Clubs
Description	This use case is used to navigate to different clubs so counsellor can manage positions, view and update budget and generate reports.

Actor	Counsellor		
Precondition	Counsellor must be logged into the system with valid credentials.		
Main Flow	1	Navigate to different clubs and manage club members.	
	2	Generate report.	
Post conditions	The updated booking information is reflected in the database.		
Alternate Flow	A1	1	Counsellor cancels the operation of club activity in some special conditions.
	A2	1	If the participation in the activities are not good then counsellor can take appropriate decisions.

UC ID	UC#06
Use case Name	View_Update_Budget

Description	In this use case, the actor, who plays the role of a counselor, interacts with a system to view and update budget information. The counselor is responsible for managing and maintaining budgetary details, ensuring that financial resources are allocated appropriately.		
Actor	Counsellor		
Precondition	Counsellor must be logged into the system with valid credentials.		
Main Flow	1	After successful login, the counselor navigates to the budget module.	
	2	The system retrieves and displays the current budget details including income, expenses, and available funds.	
	3	The system presents a form or interface allowing the counselor to make changes.	
	4	After updating the budget, the counselor confirms the changes and saves the updated budget information.	
Post conditions	The counselor's changes are reflected in the budget details and database for future reference.		
Alternate Flow	A1	1	At any point during the update process, the counselor may choose to cancel the changes.
	A2	1	if the system identifies errors or inconsistencies in the entered data, it notifies the counselor and prompts them to correct the issues before saving.

UC ID	UC#7	
Use case Name	Manage_positions	
Description	Counselor manage positions related to various roles or responsibilities within the organization's gymkhana activities. Positions may include roles such as club presidents, event coordinators, or other leadership roles associated with extracurricular and sports activities.	
Actor	Counselor	
Precondition	Counselor must be logged into the system with valid credentials.	
Main Flow	1	After successful login, the counselor navigates to the gymkhana module within the system.
	2	The system presents a list of existing positions or allows the counselor to create a new position and edit / modify positions.
	3	The counselor has the option to create a new position by providing details such as title, description,
	4	The counselor confirms and saves the changes.
Post conditions	The positions within the gymkhana module are updated based on the counselor's actions.	

Alternate Flow	A1	1	If the counselor provides invalid or incomplete details while creating or editing a position, the system should notify them and prompt for correction.
	A2	1	At any point during the position management process, the counselor may choose to cancel the changes. The system should revert to the previous state, discarding any modifications made during the current session. So the system stores previous records.

UC ID	UC#8	
Use case Name	View_club_members	
Description	The actor, interacts with the gymkhana module to view information about club members associated with various extracurricular clubs within the organization.	
Actor	Counsellor	
Precondition	Counsellor must be logged into the system with valid credentials.	
Main Flow	1	The counsellor selects the option to view club members.
	2	The system presents a list of clubs or allows the counsellor to search for a specific club.
	3	The counselor has the option to apply filters or sorting parameters to refine the list based on specific criteria.
	4	The counselor confirms and saves the changes.
Post conditions	The positions within the gymkhana module are updated based on the counselor's actions.	

Alternate Flow	A1	1	If there is error parsing the server or database, it should show error.

UC ID	UC#9	
Use case Name	View_Event_Calender	
Description	The "View Event Calendar" use case allows the Convenor to access and review the calendar of events .This functionality allows Convenor to stay informed about scheduled activities, meetings, facilitating effective coordination and planning.	
Actor	Convenor	
Precondition	The Dean is logged in into the system.	
Main Flow	1	Navigates to the Event Calendar Section.
	2	Views Existing Calendar Events.

	3	Communicates with Committee Members.	
	4	Plans and Prepares for Meetings:.	
Post conditions	The Convenor has a clear understanding of the scheduled events within the committee or organizational group.		
Alternate Flow	1	If there are errors or issues during the event calendar viewing process the system displays appropriate error messages.	
	2	The Convenor may take corrective actions or seek technical support.	
	1	The Convenor selects the "Cancel Event" option.	
	2	The system prompts the Convenor to confirm the cancellation and provide a reason for cancellation..	
Sub Flow	NIL		
Global Alternate Flow	GA1	The system displays a notification to users, including the Convenor, informing them about the temporary unavailability of the event calendar..	
	GA2	Users are advised to retry accessing the event calendar after a specified time or are directed to a dedicated system status page for updates.	

UC ID	UC#12	

Use case Name	View_Club_Member			
Description	The "View Club Members" use case enables the Convenor to access and review the list of members associated with a specific club or committee. Convenor can use this feature to stay informed about the club's membership, roles.			
Actor	Convenor			
Precondition	The Convenor is logged in into the system.			
Main Flow	1	Navigates to the Club Management Section		
	2	Views Existing Club Members.		
	3	Reviews Member Details.		
	4	Coordinates Club Activities.		
Post conditions	The Convenor has gained insights into the composition and roles of club members, facilitating effective coordination and planning for club activities.			
Alternate Flow		1	If there are errors or issues during the event calendar viewing process the system displays appropriate error messages.	
		2	The Convenor may take corrective actions or seek technical support.	

		1	The Convenor selects the "Cancel Event" option.
		2	The system prompts the Convenor to confirm the cancellation and provide a reason for cancellation..
Sub Flow	NIL		
Global Alternate Flow	GA1		The system displays a notification to users, including the Convenor, informing them about the temporary unavailability of the view club member.
	GA2		Users are advised to retry accessing the view club member after a specified time or are directed to a dedicated system status page for updates.

UC ID	UC#13	
Use case Name	Budget Allocation/Utilization	
Description	The "Budget Allocation" use case enables the Convenor to allocate funds and resources to various aspects of a specific club. This functionality is for effective financial management and strategic planning, allowing the Convenor to distribute resources based on the club's priorities, goals, and planned activities.	
Actor	Convenor	
Precondition	The Convenor is logged in into the system.	

Main Flow	1	Navigates to the Budget Management Section	
	2	Views Existing Budget Details.	
	3	Allocates Funds to Budget Categories.	
	4	Verifies Allocation.	
Post conditions	The budget is successfully allocated, and the system reflects the updated budget details.		
Alternate Flow		1	If there are errors or issues during the budget allocation process ,the system displays appropriate error messages.
		2	The Convenor may take corrective actions or seek technical support.
		1	The Convenor selects the "Cancel Budget Allocation" option.
		2	The system prompts the Convenor to confirm the cancellation and provide a reason for cancellation..
Sub Flow	NIL		
Global Alternate Flow	GA1	The system displays a notification to users, including the Convenor, informing them about the temporary unavailability of the budget allocation option.	
	GA2	Users are advised to retry accessing the budget allocation option after a specified time or are directed to a dedicated system status page for updates.	

UC ID	UC#15	
Use case Name	Make Announcement	
Description	It involves accessing the "Make Announcement" feature, providing a form to compose and publish announcements to club members, and allowing the Convenor to either cancel the announcement creation or attach files related to the announcement.	
Actor	Convenor	
Precondition	Convenor must be logged into the system with valid credentials.	
Main Flow	1	Convenor accesses the "Make Announcement" feature.
	2	System provides a form to compose and publish announcements to other club members and actors.
Post conditions	The updated booking information is reflected in the database.	
Global Alternate Flow	A1	1	Convenor cancels the announcement creation.
		2	Convenor attaches files or media to the announcement.

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UC ID	UC#16	
Use case Name	View_Event_Calender	

Description	The "View Event Calendar" use case allows the Counsellor to access and review the calendar of events .This functionality allows Counsellor to stay informed about scheduled activities, meetings, facilitating effective coordination and planning.		
Actor	Counsellor		
Precondition	The Dean is logged in into the system.		
Main Flow	1	Navigates to the Event Calendar Section.	
	2	Views Existing Calendar Events.	
	3	Communicates with Committee Members.	
	4	Plans and Prepares for Meetings:.	
Post conditions	The Counsellor has a clear understanding of the scheduled events within the committee or organizational group.		
Alternate Flow		1	If there are errors or issues during the event calendar viewing process the system displays appropriate error messages.
		2	The Counsellor may take corrective actions or seek technical support.
		1	The Counsellor selects the "Cancel Event" option.
		2	The system prompts the Counsellor to confirm the cancellation and provide a reason for cancellation..

Sub Flow	NIL	
Global Alternate Flow	GA1	The system displays a notification to users, including the Counsellor, informing them about the temporary unavailability of the event calendar..
	GA2	Users are advised to retry accessing the event calendar after a specified time or are directed to a dedicated system status page for updates.

UC ID		UC#5
Use case Name		View_budget
Description		The "View Budget" use case allows the Dean of the college hostel to review, approve, reject, edit, cancel, and view_budget for the visitor hostel through the Fusion portal.
Actor		Dean
Precondition		The dean is logged in into the system.
Main Flow	1	The Dean navigates to the "View_budget" section.
	2	The system displays the list of Budget with its respective information.
	3	The Dean selects a Budget to review. [A1][A2]

	4	The Dean views the respective Budget. [A3][A4]
Post conditions		The Budget information is viewed by the Dean.
Alternate Flow	A1	1	The request is pending. The dean selects the View_Budget action.
		2	The system updates the Budget status to "Approved" and the same is reflected to the Intender.
Sub Flow		NIL

Global Alternate Flow	GA1	If a technical error occurs during the execution of any action (e.g., database failure, server issues), the system displays an error message and logs the incident.

UC ID	UC#6
Use case Name	Generate_report

Description	The "Generate Report" enables the actors to create comprehensive reports related to his work. This functionality empowers the actors to obtain details insights of the associated Management. The generated reports serve as valuable tools for strategic decision-making, financial planning, and performance analysis.		
Actor	Dean ,Club-Corodinator , Convenor, Counsellor		
Precondition	The actor is logged in into the system.		
Main Flow	1	The Actor navigates to the "Report" section.	
	2	The system displays the query to generate reports.	
	3	The actors press the generate button for report generation. [A1][A2]	
	4	The actor views the generated report. [A3][A4]	
Post conditions	The generated report is viewed by actors.		
Alternate Flow	A1	1	The request is pending. The Actor selects the "generate" action.
		2	The system generate the reports .
Sub Flow	NIL		

Global Alternate Flow	GA1	The system displays a notification to users, including the Dean, informing them about the temporary unavailability of report generation services.
	GA2	If a technical error occurs during the execution of any action (e.g., database failure, server issues), the system displays an error message and logs the incident.

UC ID	UC#08	
Use case Name	Manage_Clubs	
Description	This use case is used to navigate to different clubs so counsellor can manage positions, view and update budget and generate reports.	
Actor	Counsellor	
Precondition	Counsellor must be logged into the system with valid credentials.	
Main Flow	1	Navigate to different clubs and manage club members.
	2	Generate report.
Post conditions	The updated booking information is reflected in the database.	

| Alternate Flow | A1 | 1 | Counsellor cancels the operation of club activity in some special conditions. |
| | A2 | 1 | If the participation in the activities are not good then counsellor can take appropriate decisions. |

UC ID	UC#09
Use case Name	View_Update_Budget
Description	In this use case, the actor, who plays the role of a counselor, interacts with a system to view and update budget information. The counselor is responsible for managing and maintaining budgetary details, ensuring that financial resources are allocated appropriately.
Actor	Counsellor
Precondition	Counsellor must be logged into the system with valid credentials.

| Main Flow | 1 | After successful login, the counselor navigates to the budget module. |

	2	The system retrieves and displays the current budget details including income, expenses, and available funds.
	3	The system presents a form or interface allowing the counselor to make changes.
	4	After updating the budget, the counselor confirms the changes and saves the updated budget information.
Post conditions	The counselor's changes are reflected in the budget details and database for future reference.	
Alternate Flow	A1	1	At any point during the update process, the counselor may choose to cancel the changes.
	A2	1	if the system identifies errors or inconsistencies in the entered data, it notifies the counselor and prompts them to correct the issues before saving.

UC ID	UC#10
Use case Name	Manage_positions
Description	Counselor manage positions related to various roles or responsibilities within the organization's gymkhana activities. Positions may include roles such as club presidents, event

	coordinators, or other leadership roles associated with extracurricular and sports activities.
Actor	Counselor
Precondition	Counselor must be logged into the system with valid credentials.

Main Flow	1	After successful login, the counselor navigates to the gymkhana module within the system.
	2	The system presents a list of existing positions or allows the counselor to create a new position and edit / modify positions.
	3	The counselor has the option to create a new position by providing details such as title, description,
	4	The counselor confirms and saves the changes.

Post conditions	The positions within the gymkhana module are updated based on the counselor's actions.

Alternate Flow	A1	1	If the counselor provides invalid or incomplete details while creating or editing a position, the system should notify them and prompt for correction.
	A2	1	At any point during the position management process, the counselor may choose to cancel the changes. The system should revert to the previous state, discarding any modifications made during the current session. So the system stores previous records.

UC ID	UC#11

Use case Name	View_club_members		
Description	The actor, interacts with the gymkhana module to view information about club members associated with various extracurricular clubs within the organization.		
Actor	Counsellor		
Precondition	Counsellor must be logged into the system with valid credentials.		
Main Flow	1	The counsellor selects the option to view club members.	
	2	The system presents a list of clubs or allows the counsellor to search for a specific club.	
	3	The counselor has the option to apply filters or sorting parameters to refine the list based on specific criteria.	
	4	The counselor confirms and saves the changes.	
Post conditions	The positions within the gymkhana module are updated based on the counselor's actions.		
Alternate Flow	A1	1	If there is error parsing the server or database, it should show error.

UC ID	UC#12	
Use case Name	View_Event_Calender	

Description	The "View Event Calendar" use case allows the Counsellor to access and review the calendar of events .This functionality allows Counsellor to stay informed about scheduled activities, meetings, facilitating effective coordination and planning.		
Actor	Counsellor		
Precondition	The Dean is logged in into the system.		
Main Flow	1	Navigates to the Event Calendar Section.	
	2	Views Existing Calendar Events.	
	3	Communicates with Committee Members.	
	4	Plans and Prepares for Meetings:.	
Post conditions	The Counsellor has a clear understanding of the scheduled events within the committee or organizational group.		
Alternate Flow		1	If there are errors or issues during the event calendar viewing process the system displays appropriate error messages.
		2	The Counsellor may take corrective actions or seek technical support.
		1	The Counsellor selects the "Cancel Event" option.
		2	The system prompts the Counsellor to confirm the cancellation and provide a reason for cancellation..

Sub Flow	NIL	
Global Alternate Flow	GA1	The system displays a notification to users, including the Counsellor, informing them about the temporary unavailability of the event calendar..
	GA2	Users are advised to retry accessing the event calendar after a specified time or are directed to a dedicated system status page for updates.

UC ID	UC#13	
Use case Name	View_Event_Calender	
Description	The "View Event Calendar" use case allows the Convenor to access and review the calendar of events .This functionality allows Convenor to stay informed about scheduled activities, meetings, facilitating effective coordination and planning.	
Actor	Convenor	
Precondition	The Dean is logged in into the system.	
Main Flow	1	Navigates to the Event Calendar Section.
	2	Views Existing Calendar Events.

	3	Communicates with Committee Members.	
	4	Plans and Prepares for Meetings:.	
Post conditions	The Convenor has a clear understanding of the scheduled events within the committee or organizational group.		
Alternate Flow		1	If there are errors or issues during the event calendar viewing process the system displays appropriate error messages.
		2	The Convenor may take corrective actions or seek technical support.
		1	The Convenor selects the "Cancel Event" option.
		2	The system prompts the Convenor to confirm the cancellation and provide a reason for cancellation..
Sub Flow	NIL		
Global Alternate Flow		GA1	The system displays a notification to users, including the Convenor, informing them about the temporary unavailability of the event calendar..
		GA2	Users are advised to retry accessing the event calendar after a specified time or are directed to a dedicated system status page for updates.

UC ID	UC#14	

Use case Name	View_Club_Member		
Description	The "View Club Members" use case enables the Convenor to access and review the list of members associated with a specific club or committee. Convenor can use this feature to stay informed about the club's membership, roles.		
Actor	Convenor		
Precondition	The Convenor is logged in into the system.		
Main Flow	1	Navigates to the Club Management Section	
	2	Views Existing Club Members.	
	3	Reviews Member Details.	
	4	Coordinates Club Activities.	
Post conditions	The Convenor has gained insights into the composition and roles of club members, facilitating effective coordination and planning for club activities.		
Alternate Flow		1	If there are errors or issues during the event calendar viewing process the system displays appropriate error messages.
		2	The Convenor may take corrective actions or seek technical support.

		1	The Convenor selects the "Cancel Event" option.
		2	The system prompts the Convenor to confirm the cancellation and provide a reason for cancellation..
Sub Flow	NIL		
Global Alternate Flow	GA1		The system displays a notification to users, including the Convenor, informing them about the temporary unavailability of the view club member.
	GA2		Users are advised to retry accessing the view club member after a specified time or are directed to a dedicated system status page for updates.

UC ID	UC#15	
Use case Name	Budget Allocation/Utilization	
Description	The "Budget Allocation" use case enables the Convenor to allocate funds and resources to various aspects of a specific club. This functionality is for effective financial management and strategic planning, allowing the Convenor to distribute resources based on the club's priorities, goals, and planned activities.	
Actor	Convenor	
Precondition	The Convenor is logged in into the system.	

Main Flow	1	Navigates to the Budget Management Section	
	2	Views Existing Budget Details.	
	3	Allocates Funds to Budget Categories.	
	4	Verifies Allocation.	
Post conditions	The budget is successfully allocated, and the system reflects the updated budget details.		
Alternate Flow		1	If there are errors or issues during the budget allocation process ,the system displays appropriate error messages.
		2	The Convenor may take corrective actions or seek technical support.
		1	The Convenor selects the "Cancel Budget Allocation" option.
		2	The system prompts the Convenor to confirm the cancellation and provide a reason for cancellation..
Sub Flow	NIL		
Global Alternate Flow	GA1	The system displays a notification to users, including the Convenor, informing them about the temporary unavailability of the budget allocation option.	
	GA2	Users are advised to retry accessing the budget allocation option after a specified time or are directed to a dedicated system status page for updates.	

UC ID	UC#16		
Use case Name	Make Announcement		
Description	It involves accessing the "Make Announcement" feature, providing a form to compose and publish announcements to club members, and allowing the Convenor to either cancel the announcement creation or attach files related to the announcement.		
Actor	Convenor		
Precondition	Convenor must be logged into the system with valid credentials.		
Main Flow	1	Convenor accesses the "Make Announcement" feature.	
	2	System provides a form to compose and publish announcements to other club members and actors.	
Post conditions	The updated booking information is reflected in the database.		
Global Alternate Flow	A1	1	Convenor cancels the announcement creation.
		2	Convenor attaches files or media to the announcement.

UC ID	UC#17		
Use case Name	Manage_Club_Members		
Description	This use case empowers the Club Coordinator to oversee and administer the membership details and to maintain an organized and efficient club structure, ensuring that members are appropriately registered, engaged, and informed.		
Actor	Club Coordinator		
Precondition	Club coordinator must be logged into the system with valid credentials.		
Main Flow	1	Send club announcements and notifications.	
	2	Navigates to the Club Management Section	
	3	Views Existing Club Members	
	4	Verified Member Roles and Responsibilities	
Post conditions	The club member roster is updated according to the Club Coordinator's actions, and club members are informed of any relevant announcements or changes.		
Alternate Flow	A1	1	If there are errors or issues during the member management process, the system displays appropriate error messages.

	A2	2	The Club Coordinator takes the appropriate action(cancel) accordingly.

UC ID	UC#18	
Use case Name	Manage_Calendar	
Description	This use case displays the current calendar with scheduled events, and provides options for the Club Coordinator to either cancel the operation or modify an event date/time.	
Actor	Club Coordinator	
Precondition	Club coordinator must be logged into the system with valid credentials.	
Main Flow	1	Navigates to the club management section.
	2	View existing calendar events.
	3	Add / edit / remove calendar events.
Post conditions	The updated information is reflected in the database.	
Alternate Flow	A1	1	If there are errors or issues during the calendar management process (e.g., data validation errors,

			system unavailability), the system displays appropriate error messages.
	A2	1	The Club Coordinator may take corrective actions or seek technical support

UC ID	UC#19	
Use case Name	Manage_Club_Activity	
Descriptio n	This functionality enables the Club Coordinator to plan, organize, and monitor the club's activities.	
Actor	Club Coordinator	
Preconditi on	Club coordinator must be logged into the system with valid credentials.	
Main Flow	1	Club Coordinator selects "Manage Club Activity" from the dashboard.
	2	System displays a list of current club activities with options to edit or delete.
	3	In club activities there will be the proper place, venue and timing for the activity. If it is open to all or only club registered members.
Post conditions	The updated information is reflected in the database.	

UC ID	UC#19		
Alternate Flow	A 1	1	The Club Coordinator cancels the operation.
		2	Club Coordinator creates a new club activity.

UC ID	UC#20		
Use case Name	Make Announcement		
Description	It involves accessing the "Make Announcement" feature, providing a form to compose and publish announcements to club members, and allowing the Club Coordinator to either cancel the announcement creation or attach files related to the announcement.		
Actor	Club Coordinator		
Precondition	Club coordinator must be logged into the system with valid credentials.		
Main Flow	1	Club Coordinator accesses the "Make Announcement" feature.	
	2	System provides a form to compose and publish announcements to other club members and actors.	
Post conditions	The updated booking information is reflected in the database.		
	A1	1	Club Coordinator cancels the announcement creation.
		2	Club Coordinator attaches files or media to the announcement.

3.3. Other Functional Requirements

1. **Communication Module for Notifications:**

Implement a communication module to send notifications and alerts for various events in the Gymkhana module, such as scheduling of sports events, facility closures, or important updates.

2. **Automated Notifications for Activity Confirmations:**

Set up automated email or SMS notifications for confirmation, modification, or cancellation of sports activities, event registrations, or facility bookings within the gymkhana.

3. **Alerts for Equipment and Facility Management:**

Integrate alerts for monitoring critical levels of sports equipment, ensuring that there are notifications for maintenance requirements, equipment shortages, or any other important updates related to the gymkhana facilities.

4. **Role Assignment by Admin:**

Provide a feature for the Gymkhana admin (possibly a Super admin) to assign roles and permissions to individuals responsible for managing various aspects, such as sports facility in-charge, caretakers, or event coordinators.

5. **Offline Booking Support:**

Implement a system to handle offline bookings, allowing users to reserve sports facilities or register for events even when they are not connected to the internet. The system should synchronize data once the connection is restored.

6. **Approval Process for Membership Category Conversion:**

Allow for the conversion of membership categories within the gymkhana module, subject to approval from the relevant authority. For instance, upgrading a regular membership to premium membership based on certain criteria.

7. **Flexible Tariff Management:**

Enable the system to accommodate changes in tariffs over time. The decision-making authority, possibly the gymkhana management, should have the capability to modify fees, membership costs, or event charges based on institutional policies or other considerations.

3.4 Other constraints

3.4.1 User Interfaces

The user interface must align with the color scheme and dashboard design of FUSION IIIT, ensuring a cohesive visual experience. Users should experience seamless navigation between functionalities, with smooth inter-module transitions. The design prioritizes user-friendliness, aiming for intuitive usage where specific training is unnecessary for module operation.

3.4.2 Tech Stack Used

Mobile App: Flutter, Dart, Django, POSTGRE SQL

3.4.3 Business rules

Financial Updates from Offline Transactions:
- A mechanism should be in place to manually update financial transactions conducted offline.
- Club Convenors and Student Deans can input and update financial data for offline transactions on the portal.

4. Non- Functional Requirements

4.1 Performance Requirements:

- Continuous 24/7 operation without disruptions: The Gymkhana application will operate continuously, ensuring uninterrupted access for users. Strategies like load balancing and redundancy will be implemented to handle increased user traffic without downtime.
- Display proper error messages in case of database connection delays: Users will receive clear error messages in the event of any delays or issues in connecting to the Gymkhana database, aiding in user understanding and troubleshooting.
- Ensure the system does not exit without informing the user: The Gymkhana application will handle errors gracefully, preventing sudden exits and providing informative messages to users if unexpected issues arise.

4.2 Scalability:

- Optimize storage and access methods for increased user data and usage over time: The database architecture and access methods will be optimized to

efficiently scale as the Gymkhana user base and data volume grow. Techniques like sharding and indexing will be employed.

4.3 Availability:

- Accessible through browser or app with regular updates and feedback via Google Play Store: The Gymkhana application will be accessible through web browsers and mobile apps, ensuring regular updates through platforms like the Google Play Store. Users will have mechanisms for providing feedback.

4.4 Screen Adaption:

- Render layouts for different screen sizes with automatic font size and image adjustments: Gymkhana's user interfaces will be designed to adapt to various screen sizes, automatically adjusting font sizes and images for a consistent and user-friendly experience across devices.

4.5 Safety Requirements:

- Secure transmission of information to the server without changes: Gymkhana will implement secure communication protocols, such as HTTPS, to guarantee the confidentiality and integrity of data transmitted between users and the server.

4.6 Security Requirements:

- Will Implement a robust login mechanism for Gymkhana Office Bearers and Administrator accounts: Gymkhana will feature a secure authentication system, including robust login mechanisms and, where applicable, multi-factor authentication for Gymkhana Office Bearers and Administrators.
- Encrypt passwords securely: User passwords will be stored securely in the database using strong encryption algorithms, safeguarding them from unauthorized access.
- Restrict data transmission to authorized machines: Access controls will be in place to ensure that data transmission is restricted to authorized devices and users, preventing unauthorized access.
- Backend servers accessible only to authenticated administrators: Gymkhana's backend servers will grant access exclusively to authenticated administrators, minimizing the risk of unauthorized access and enhancing overall security.

5. Module dependencies with other fusion modules

5.1 UI Level

The Gymkhana module will be seamlessly integrated into Fusion's user interface.

The specific interactions with each module are as follows:

- academic.dart: The Gymkhana module might interact with the Academic module to check and coordinate events that align with academic schedules. For instance, avoiding facility bookings during critical exam periods.
- health.dart: There could be interactions with the Health module to promote wellness activities within the Gymkhana module or to coordinate events that encourage a healthy lifestyle.
- academic_faculty.dart: Interaction with this module may occur for coordination of events or activities that involve faculty participation or require academic approval.
- complaints.dart: The Gymkhana module might handle complaints related to its own activities or facilities, and interactions could involve resolving complaints or addressing feedback.
- dashboard.dart: The Gymkhana module's dashboard might display key metrics and insights relevant to its own activities, bookings, and events.
- notification.dart: Interaction with the Notification module is essential for sending timely alerts and updates related to facility availability, event confirmations, and other Gymkhana-related notifications.
- profile.dart: The Gymkhana module could interact with the Profile module to access and update user profiles, especially for members involved in gymkhana activities or events.
- user.dart: This module might be essential for managing user roles, permissions, and authentication within the Gymkhana module.

5.2 DB Level Dependencies

The Gymkhana module's database dependencies include:

- academic.dart: Shared data may involve coordination of event schedules, ensuring that academic and Gymkhana activities do not conflict.
- health.dart: Interaction may include tracking health-related event participation or integrating health-related data into specific Gymkhana activities.
- academic_faculty.dart: Dependencies could involve coordinating faculty involvement in Gymkhana events and maintaining related data.
- complaints.dart: The Gymkhana module might share data related to complaints and feedback, ensuring a holistic approach to addressing user concerns.
- dashboard.dart: The Gymkhana module's dashboard may aggregate data from various sources, including user activities and facility usage statistics.
- notification.dart: This module is crucial for storing and retrieving notification data, ensuring timely communication with Gymkhana module users.
- profile.dart: Shared data may involve user profiles, especially for members participating in gymkhana activities.
- user.dart: Essential for maintaining user-related data, roles, and permissions within the Gymkhana module.

5.3 Module Level Dependencies

Interactions between the Gymkhana module and other Fusion modules are essential for holistic functionality:

- academic.dart: Coordination of events to avoid scheduling conflicts during critical academic periods.
- health.dart: Integration of health-related activities or data into specific Gymkhana events.
- academic_faculty.dart: Coordination of faculty involvement in Gymkhana activities and events.
- complaints.dart: Addressing and resolving complaints related to Gymkhana activities and facilities.
- dashboard.dart: Aggregation of data for comprehensive insights into Gymkhana activities.

- notification.dart: Timely communication of Gymkhana-related alerts and updates.
- profile.dart: Management of user profiles for members participating in gymkhana activities.
- user.dart: Maintenance of roles, permissions, and authentication within the Gymkhana module.