Fusion ERP

Software Requirements
Specification
for

AC-4-OTHER ACADEMIC
PROCEDURES (WEB)

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1.   Introduction

1.1   Introduction about the Fusion – A brief Description

FusionIIIT stands as a testament to the seamless integration and automation of diverse functions within PDPM Indian Institute of Information Technology, Design and Manufacturing, Jabalpur. Crafted with precision using Python 3.8 and powered by the Django Web framework,

this initiative is a student-driven endeavor designed to elevate the institute's operational landscape. Encompassing everything from efficient administration management to academic prowess and miscellaneous departmental tasks, FusionIIIT is a holistic solution that harmonizes the intricacies of campus life.

Imagine it as a digital wizard that takes care of everything, from organizing the administrative stuff to making academics smoother. It's not just limited to the usual tasks; FusionIIIT jumps into various departments and sections, making sure every corner of campus life runs smoothly.

In the admin side, it handles the complicated paperwork and processes. For academics, it brings a digital touch, making learning and managing courses easier. But it doesn't stop there; FusionIIIT is like a friendly companion for all the different parts of the campus, making sure everything works well.

In simpler terms, FusionIIIT is not just a tool – it's a helpful friend, making life at PDPM IIITDM Jabalpur more organized and enjoyable for everyone.

1.2   Purpose of the module:

The aim of the document is to gather and analyse and give an in-depth insight of the Academic Procedures of IIITDM Jabalpur which includes Leave Bonafide,
and No-dues. 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 will be Academic Procedures Web Services Portal to make various activities of the academic office easy to process and fast . Accessing the information and performing the activities will be easy using the Software.

Software will facilitate various activities of the academic procedures at one place.

2.   User/Actor characteristics

2.1   STUDENT

Represents individuals who intend to do their academic procedures such as filling of leave form , filling of bonafide form , checking the status of their no dues etc

Role: student(UG + PG) role is to make use of this portal to fulfil his academic procedures through this platform.

Specific Functionalities:

- Checking of no_dues_status.
- Filling the leave_form.
- Filling the bonafide_form.

2.2   PG STUDENTS:

PG Students can access all the functionalities of Student but they also come through some special features such as looking for their status of graduate seminar and assistantship claim status.

Role: PG students role is to make sure that they effectively make use of this portal to check their graduate_seminar_status and check their assistantship_claim_status.

Specific Functionalities:

- Check_graduate_seminar_status.
- Check_Assistanstship_claim_status.

2.3   HOD

HOD is the head of the department of all the students (UG + PG) and faculty of that same department.

Role: The role of HOD is to make sure that he checks all the leave requests and then grants or rejects them and to sign the assistantship claim form.

Specific Functionalities:

- To check all the leave requests.
- To approve or rejects the leave requests.
- To sign assistantship claim form of PG students.

2.4   ACAD ADMIN

Acad Admin is the administrative personnel and is responsible for managing all the academic affairs.

Role: The role of Acad Admin is to verify the bonafide application and give assistantship to PG students and to make sure to update the no_dues status.

Specific Functionalities:

- To verify the bonafide applications of students.
- To give assistantship to PHD and PG students
- To update the no_dues status.

2.5   Dept-Admin

Department Admin refers to the administrative personnel responsible for managing the day to day operations of a specific department in an organization or institution.

Role: The role of Dept-Admin is to log assistantship and seminar status of PG students.

Specific Functionalities:

- Log_graduate_seminar_data.
- Log_Assistantship_claim_data.

2.6   LIBRARIAN

Library (Librarian) is the incharge of the library and manages all the records and data of the library.

Role: The role of library is to make sure that it releases the no_dues form of all the applicable students.

Specific Functionalities:

- To generate the no_dues form.

2.7   HOSTEL WARDEN

Hostel (Hostel warden or hostel caretaker) is the incharge of the hostel and is responsible for all the students staying in that particular hostel and to keep and maintain the record of every students of that hostel.

Role: The role of hostel is to make sure that it releases the no_dues form of all the applicable students.

Specific Functionalities:

- To generate the no_dues form.

2.8 TA SUPERVISOR

TA Supervisor is the one who manages all the TA's and is responsible to distribute works to the TA's.

Role: The role of TA Supervisor is to approve or reject the assistantship claim form of the PG students.

Specific Functionalities:

- To approve assistantship_claim_form.

2.9 THESIS SUPERVISOR

Thesis Supervisor is the one who supervises the thesis of PG students.

Role: The role of theis Supervisor is to approve or reject the assistantship claim form of the PG students.

Specific Functionalities:

- To approve assistantship_claim_form.

2.10 LAB INCHARGE

Lab incharge includes all the labs incharge actors (VLSI,ece,signal processing lab,workshop,cc,macatronics lab,physic lab) , that will verify no dues of student in their specific lab.

Role: The role of the lab incharge is to verify the no dues of student of specific lab.

Specific Functionalities:

- To verify no dues

2.11 DESIGN INCHARGE

Design incharge includes Design studio and Design Project actor in it, who will verify the no dues of students.

Role: The role of the Design incharge is to verify the no dues of student of specific design discipline related no dues.

Specific Functionalities:

- To release and update no duse form

2.12 OFFICE INCHARGE

Office incharge is the incharge of the all the offices like Gymkhana,placement cell,Aluminy,Decipline office,BTP superviser,Bank,Account and manages all the records and data of the all the offices.

Role: The role of the Office incharge is to varify the no_dues form of all the students. And procede it for other work.

Specific Functionalities:

- To varify no dues form

2.13 MESS INCHARGE

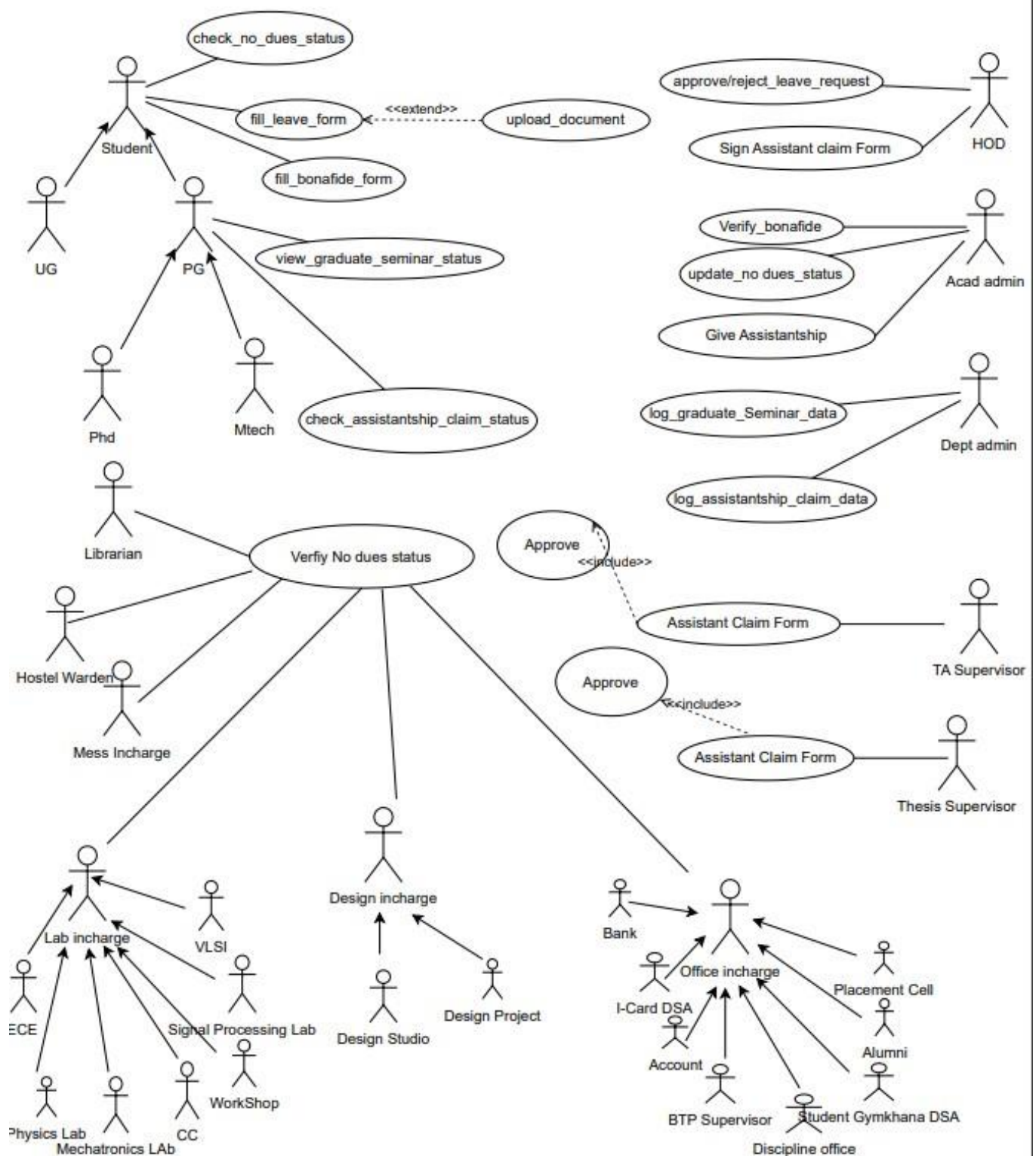Mess incharge is the incharge of dealing the mess related work that include accounting of Mess .

Role : Mess incharge will check the database of each student and verify the no dues of student of mess.

Specific Functionalities :

- To varify no dues form

3. Functional Requirements

3.1   Use Case Diagram

3.2   Use case Description

UC ID	UC#1
User Case Name	fill_leave_form
Description	Filling leave application form
Actor	Students
Precondition	Balance leaves left or Medical certificate or any supporting document.
Main Flow	1. Application should be filled with appropriate document if any(optional). 2. Application is forwarded to the HOD.
Postcondition	Application is submitted and forwarded to the HOD.

UC ID	UC#2
User Case Name	approve/reject_leave_request
Description	permit leave or reject leave to the student
Actor	HOD
Precondition	HOD should be login on the website
Main Flow	1.Approve the leave request. 2. Status of leave application gets updated
Postcondition	Leave is granted to the student.
Alternate Flow	Leave is not granted to the student.

UC ID	UC#3

Use case name	upload_document
Description	It is optional to upload document during filling the leave form.
Actor	Students
Main Flow	1. Student can upload supporting document during filling form.
Post Condition	HOD will look the proper reason and either he grant or not grant the leave.

UC ID	UC#4
Use Case Name	fill_bonafied_form
Description	Filling the Bonafide form
Actor	Students
Precondition	Purpose for bonafide
Main flow	1. Fill the form 2. Submit the form 3. Forward to the Acad Admin.
Post Condition	Received by the Acad Admin .

UC ID	UC#5
Use Case Name	Verify_bonafide
Description	Approve the bonafide request

Actor	Acad Admin
Precondition	Bonafide request.
Main flow	1)The Acad admin checks the bonafide request . 2)Acad admin can approve or reject request.
Post Condition	Students can check the status of their request.

UC ID	UC#6
Use case Name	check_graduate_seminar_status
Description	To check the graduate seminar schedule
Actor	PG students
Precondition	Graduate seminar status must be logged or updated.
Main Flow	1.Students can view the schedule of their seminar.
Post Condition	NA

UC ID	UC#7
Use case name	check_assistantship_claim_status
Description	For getting the stipend

Actor	PG Student
Precondition	Must be a PG Student
Main Flow	1. Fill the form 2. Submit to the department admin office
Post Condition	1. Accepted by Department Admin office 2. Notified to PG student.

UC ID	UC#8
Use case name	log_assistantship_claim_data
Description	Department Admin office generate the form
Actor	Department Admin
Precondition	Department Admin should be login to page
Main Flow	1. Generate the Assistant Claim Form. 2. Allot student to their TA supervisor and Thesis supervisor.
Post Condition	Form get to TA supervisor and Thesis Supervisor for the approval.
Alternate Flow	In case of incomplete details, notify the student.

UC ID	UC#9
Use case name	update_no_dues_status

Description	
	Acad Admin will update the no dues of student.
Actor	Acad Admin
Precondition	NoDues Status of student must be present.
Main Flow	1. Acad Admin will check the no dues of student. 2. Update no dues after no dues is clear by the student.
Post Condition	Student will be able to see NoDues Status
Alternate Flow	NA

UC ID	UC#10
Use case name	check_no_dues_status
Description	check NoDues Status
Actor	Student
Precondition	NoDues status should be present.
Main Flow	1. Students can check their status of NoDues. 2. Once all Dues are cleared Student can download the NoDues approval.
Post Condition	1.Student will be able to see NoDues Status 2. Student will able to download the No Dues .
Alternate Flow	If not all dues are cleared, students can't download NoDues approval.

UC ID	UC#11
Use case name	log_graduate_Seminar_data
Description	Dept admin update or log the schedule of graduate seminar.
Actor	Department Admin
Main Flow	1. Department Admin update or log the schedule for seminar.
Post Condition	Students can view graduate seminar schedule.
Alternate Flow	NA

UC ID	UC#12
Use case name	Assistant Claim Form
Description	TA supervisor approve the assistant claim of student.
Actor	TA supervisor
Precondition	1. TA supervisor should be login to website. 2. Form should be filled by the student.
Main Flow	a) check the assistantship form of student. b) Verify the details provided by the student. c) Approve/Reject the assistant claim form of student.
Post Condition	After approve , Form will get to Thesis Supervisor for approval.
Alternate Flow	In case of incomplete details, notify the student.

UC ID	UC#13

Use case name	Assistant Claim Form
Description	Thesis supervisor approve the assistant claim of student.
Actor	Thesis supervisor
Precondition	1. Thesis supervisor should be login to website. 2. Form should be approved by the TA Supervisor.
Main Flow	a) check the assistantship form of student. b) Verify the details provided by the student. c) Approve/Reject the assistant claim form of student.
Post Condition	After approve , Form will get to HoD for sign.
Alternate Flow	In case of incomplete details, notify the student.

UC ID	UC#14
Use case name	Sign Assistant Claim Form
Description	HOD will sign the Assistant claim Form.
Actor	HOD
Precondition	1. HOD should be login to page. 2. Assistant claim should be approved by the TA supervisor and Thesis supervisor.
Main Flow	1. HOD will check the Assistant claim Form 2. Sign the Assistant Claim Form.
Post Condition	Detail of student get shared to Acad Admin for the stipend to that student.
Alternate Flow	In case of incomplete details, notify the student.

UC ID	UC#15

Use case name	Give Assistantship
Description	Acad Admin give stipend to allotted student.
Actor	Acad Admin
Precondition	1. Acad Admin should be login to website. 2. Assistant claim form should be signed by HOD.
Main Flow	1. Acad Admin check bank details of student. 2. Acad Admin give stipend to allotted student.
Post Condition	Student will receive the stipend and approval.
Alternate Flow	In case of incomplete details, notify the student.

UC ID	UC#16
Use case name	Verify No Dues
Description	verify no dues to student.
Actor	Librarian
Precondition	Librarian should be login to the portal
Main Flow	1. Check clear if no dues of student is clear in library database. 2. Check not clear if no dues of student is not clear in library database.
Post Condition	Student can view their no dues through website.
Alternate Flow	If no dues is not, student have to go for library to clear the no dues by the library protocol.

UC ID	UC#17
Use case name	Verify No Dues

Description	verify no dues to student.
Actor	Hostel Warden or Hostel Caretaker
Precondition	Hostel Warden or Hostel Caretaker should be login to the portal
Main Flow	1. Check clear if no dues of student is clear in Hostel database. 2. Check not clear if no dues of student is not clear in Hostel database.
Post Condition	Student can view their no dues through website.
Alternate Flow	If no dues of hostel is not clear, student have to go for clear of no dues of hostel through hostel protocol.

UC ID	UC#18
Use case name	Verify No Dues
Description	verify no dues to student.
Actor	Mess incharge
Precondition	Mess incharge should be login to the portal
Main Flow	1. Check clear if no dues of student is clear in Mess database. 2. Check not clear if no dues of student is not clear in Mess database.
Post Condition	Student can view their no dues through website.
Alternate Flow	If no dues of Mess is not clear, student have to go for clear the no dues of Mess through Mess protocol.

UC ID	UC#19
Use case name	Verify No Dues
Description	verify no dues to student.
Actor	Lab incharge
Precondition	Concerned authority should be login to the portal
Main Flow	1. Check clear if no dues of student is clear in specified authority database. 2. Check not clear if no dues of student is not clear in specified authority database.
Post Condition	Student can view their no dues through website.
Alternate Flow	If no dues of student in the specific lab then student have to that lab protocol to clear the no dues.

UC ID	UC#20
Use case name	Verify No Dues
Description	verify no dues to student.
Actor	Office incharge
Precondition	Concerned authority should be login to the portal
Main Flow	1. Check clear if no dues of student is clear in specified authority database. 2. Check not clear if no dues of student is not clear in specified authority database.
Post Condition	Student can view their no dues through website.
Alternate Flow	If no dues of student in the specific office then student have to that office protocol to clear the no dues.

UC ID	UC#21
Use case name	Verify No Dues
Description	verify no dues to student.
Actor	Design incharge
Precondition	Concerned authority should be login to the portal
Main Flow	1. Check clear if no dues of student is clear in specified authority database. 2. Check not clear if no dues of student is not clear in specified authority database.
Post Condition	Student can view their no dues through website.
Alternate Flow	If no dues of student in the specific Design office then student have to that design office protocol to clear the no dues.

3.3. Other Functional Requirements

 we can send notifications or email to the respective students when his/her request had been accepted.

3.4 Other constraints

3.4.1 User Interfaces

The user interface should comply with the colour scheming and dashboard design of the FUSIONIIT. Users should be able to navigate from one functionality to other. Inter module navigation should be smooth. All the functionalities should be easy to use and no specific training should be required for the usage of the module

3.4.2 Tech Stack Used

we are using:

Django

Postgresql DB.

4. <u>Non- Functional Requirements</u>

4.1   Performance:

The system should respond to user interactions quickly. Response time for booking actions, inventory updates, and notifications should be less.

4.2   Scalability:

The system should handle a mass of concurrent users. System performance should be evaluated under increasing load conditions.

4.3   Availability:

The system should be available 99.9% of the time.

4.4   Security:

Ensure data confidentiality and integrity. Role-based authorization ensures that users can only perform actions relevant to their designated roles.

5. <u>Module dependencies with other fusion modules</u>

5.1. UI Level

when the students will submit any application regarding leave or affidavait or assistantship status etc then the HOD or dept admin and acad admin can view them through their logging in with their credentials and can approve or reject their requests. And after that the students go to their portal and see if their requests had been approved or not.

5.2 DB Level Dependencies

DB tables that other academic procedures module depends on is:

Students

HOD

Acad Admin

Dept Admin.