

**Software Requirement**

**Specification**

Academic Procedures(Leave

Bonafide, PG-procedures,

TA-ship, No-dues)

**Submitted By**

Harshvardhan Singh (20BCS099)

Deepankar Singh (20BCS069)

Kamal Kishor (20BCS108)

Mukul Rana (20BCS137)

Sparsh Kumar(20BCS219)

Gowthan Reddy (20BCS058)

Ayush Saxena (20BCS052)

Kirti Jai Gupta (20BCS114)

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1.0 Introduction

# 1.1 Purpose

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.

# 1.2 Project Scope

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.

# 1.3 Document Convention

When writing this SRS for the Academic Procedures Software, the following terminologies are used:

* Web server (WS): Web Server over which all the data and information is stored.
* Database: Database is collection of data of the Institute’s various departments.Access will be given on proper authentication. ● Client: The user of the Software

# 1.4 Intended Audience and Reading suggestions

Intended Audience of the SRS are students (IIITDM Jabalpur as well as outside) and developers, faculties and Staff. It specifically addresses issues of the Academic Procedures System.

# 2.0 Overall Description

## 2.1 Product Perspective

The Academic Procedures system is itself a subsystem of the College System. Software will take input from the College Database of Students and Faculty.

There are specifically 6 Actors in the System, Students, Assistant, HOD, PG Students, concerned authorities and Faculty. Different Activities are performed by different actors.

## 2.2 Product Functions(Functional Requirements)

Academic Procedures include the following functions:

***Leave application Form***

Each student will be allowed to fill the leave form and upload a medical certificate if required.

The form is received and signed by the HOD.

### **HOD certifies leave application**

The HOD certifies the leave application. And the leave is granted to the student.

### **Status of Leave Application**

Students can check the status of their leave application.

### **Filling of Bonafide Form by the Student**

Each student will be allowed to fill the Bonafide form by mentioning the reason for bonafide.

The filled form will be received by the accounts manager.

### **Verification of the Bonafide form**

The accounts verifies the bonafide form and issues the bonafide.

### **Filling Bonafide Request Form**

The student can apply for a downloadable Bonafide form which can be used to request Bonafide for specific reasons.

### **Status of NoDues**

The student can check the status of their NoDues

### **Download NoDues**

The student will be able to download the NoDues approval once all the dues are cleared by the accounts manager.

### **Update the Due Status**

The accounts manager can verify all the dues of students and can update them.

***Filling of the TA-ship form***

The TA-ship form is filled by the PG- students for the stipend. The form is sent to the Faculty members for approval.

***Processing of TA-ship form by the assistant.***

The signed form is received by the assistant and is processed further.

***Filling of Graduate Seminar form***

The graduate seminar form is filled by the PG students before the completion of the semester.

This form is forwarded to the concerned faculty for review and grade allotment.

***Updating the status of work by PG-students***

The students update their work and notify the concerned faculty about the work status.

***Reviewing of Graduate Seminar Form***

The graduate seminar form is reviewed by the concerned faculty and the student is notified about the same.

***Filling of AssistantShip Claim Form***

The PG Students fill the Assistantship claim form and it is forwarded to the concerned faculty.

***Reviewing of AssistantShip Claim Form***

Reviewing the form by the faculty and notifying the student.

### 2.2.1 Appendix A: Glossary

**Student :** All the students enrolled in the College.​

**PG Student :** All M.Tech and Phd Student.​

**Assistant :** Member of the Academic office, member of accounts office, looks after the form submission and verification

**HOD :** The Head of Department​

**Faculty :** Professor in college.​

**Concerned Authorities:** The authorities involved in approval of No dues form.​

## 2.3 User Classes and Characteristics

The typical Student Academic Procedures user is simply anyone that has access to the Internet and a web browser. It is assumed that the user is familiar enough with a computer to operate the browser, keyboard and mouse and is capable of browsing to, from and within simple websites and literate enough to do basic operations.

## 2.4 Operating Environment

The Operating Environment of the System will be basic Computer with Network Connectivity.

## 2.5 Design and Implementation Constraints

The Software will be designed in the English Language only. Native languages are not supported by software itself, although if the underlying platform allows it, there is no objection by the part of software developers.

## 2.6 Assumptions and Dependencies

It is assumed that the platform on which the software is operating is working correctly, such as Network connectivity, Operating system, as well as Hardware components such as Hard disk, RAM, processor, network interface card, are functioning as per requirements. Also, it is assumed that the required technology to run the software is present in the system.

# 3.0 System Features (Functional Requirements)

# 4.0 Use Cases

| UC ID | UC#1 |
| --- | --- |
| User Case Name | Leave Form |
| Description | Filling leave application form |
| Actor | Students |
| Precondition | Balance leaves left or Medical certificate |
| Main Flow | 1. Application should be filled. 2. Application is forwarded to the HOD. |
| Postcondition | Application is submitted and forwarded to the HOD. |

| UC ID | UC#2 |
| --- | --- |
| User Case Name | Approve Leave Application |
| Description | Grants leave to the Student |
| Actor | HOD |
| Precondition | NA |
| 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 | Leave Status |
| Description | Student can see status of applied leaves. |
| Actor | PG Students |
| Main Flow | 1. Student can view status of all applied leaves. |
| Post Condition | The student gets the result. |

| UC ID | UC#4 |
| --- | --- |
| Use Case Name | Bonafide |
| 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 Accounts manager |
| Post Condition | Received by the Accounts Office |

| UC ID | UC#5 |
| --- | --- |
| Use Case Name | Verify Bonafide |
| Description | Approve the bonafide request |
| Actor | Assistant |
| Precondition | Bonafide request. |
| Main flow | The assistants verifies the bonafide request and can approve it. |
| Post Condition | Students can check the status of their request. |

| UC ID | UC#6 |
| --- | --- |
| Use Case Name | Download Bonafide Request Form |
| Description | Download Bonafide Request Form |
| Actor | Student |
| Precondition | Mention purpose of request form |
| Main flow | The student fills the Bonafide Request Form by mentioning the purpose. |
| Post Condition | Students get the downloadable Bonafide Request Form. |

| UC ID | UC#7 |
| --- | --- |
| Use case Name | MTech Graduate Seminar Form |
| Description | Filling of Graduate seminar form. |
| Actor | PG students |
| Precondition | Form must be filled post graduate seminar |
| Main Flow | 1. Fill the form. 2. Submitted to the respective faculty for approval. 3. form is submitted to PGPC for grading |
| Post Condition | Grade is allotted to the student. |

| UC ID | UC#8 |
| --- | --- |
| Use case name | Assistantship Claim Form |
| Description | For getting the stipend |
| Actor | PG Student |
| Precondition | Must be a PG Student |
| Main Flow | 1. Fill the form 2. Submit to the academic office |
| Post Condition | Accepted by Academic office |

| UC ID | UC#9 |
| --- | --- |
| Use case name | Review Assistantship Claim Form |
| Description | Academic office review the form |
| Actor | Academic office |
| Precondition | Filled Correctly |
| Main Flow | 1. Checks the dues 2. Approval of No dues Form |
| Post Condition | Stipend gets credited into the student account |
| Alternate Flow | In case of incomplete details, notify the student. |

| UC ID | UC#10 |
| --- | --- |
| Use case name | Initialise NoDues Status |
| Description | Initialise NoDues Status |
| Actor | Accounts manager |
| Precondition | NA |
| Main Flow | Accounts manager can initialise the NoDues status of any student. |
| Post Condition | Student will be able to see NoDues Status |
| Alternate Flow | NA |

| UC ID | UC#11 |
| --- | --- |
| Use case name | Update NoDues Status |
| Description | Edit NoDues Status |
| Actor | Accounts manager |
| Precondition | NoDues Status must be initialised. |
| Main Flow | Accounts manager can update the NoDues status of any student. |
| Post Condition | Student will be able to see NoDues Status |
| Alternate Flow | NA |

| UC ID | UC#12 |
| --- | --- |
| Use case name | Check NoDues Status |
| Description | check NoDues Status |
| Actor | Student |
| Precondition | NoDues status should be initialised |
| Main Flow | 1. Students can check their status of NoDues. 2. Once all Dues are cleared Student can download the NoDues approval. |
| Post Condition | Student will be able to see NoDues Status |
| Alternate Flow | If not all dues are cleared, students can’t download NoDues approval. |

| UC ID | UC#13 |
| --- | --- |
| Use case name | Review MTech Graduate Seminar Form |
| Description | Concerned Faculty reviews the form |
| Actor | Faculty |
| Main Flow | 1. Faculty reviews the Graduate Seminar   Form   1. Approves the form |
| Post Condition | The students gets the approved message |
| Alternate Flow | In case of incomplete details, notify the student. |

| UC ID | UC#14 |
| --- | --- |
| Use case name | Ph.D. Progress Report |
| Description | Ph.D. Student fills the Progress Report Form |
| Actor | Ph.D. students |
| Main Flow | 1. Student fills the Ph.D. Progress Report.   2.The filled form is sent to the DPRC which evaluates the work of the students. |
| Post Condition | The form is sent to DPRC for evaluation |

| UC ID | UC#15 |
| --- | --- |
| Use case name | Review Ph.D. Progress Report |
| Description | Concerned Faculty/Authority reviews the form |
| Actor | DPRC |
| Main Flow | 1. The concerned authority fills and reviews the work of the Ph.D. student. 2. The result is sent to the respective student. |
| Post Condition | The students get the result. |

| UC ID | UC#16 |
| --- | --- |
| Use case name | PHD comprehensive test |
| Description | Notifications and results of the PHD comprehensive test are uploaded. |
| Actor | Faculty & Administration |
| Main Flow | 1. The concerned authority publishes notification about the upcoming comprehensive test. 2. The concerned authority reviews the test of the Ph.D. student. 3. Then the result is sent to the respective student. |
| Post Condition | The student gets the result . |

| UC ID | UC#17 |
| --- | --- |
| Use case name | Application for TA |
| Description | Sends application to TA head of department. |
| Actor | PG Students |
| Main Flow | 1. Head of Department will review the application. 2. If the application is accepted then TA-ship is granted and the details are forwarded to the academic section. |
| Post Condition | The applicant receives the verdict. |

# 5.0 External Interface Requirements

## 5.1 User Interfaces

### 5.1.1 Student Interface

Students will be at the home page after logging in with user id and password, proceeding further to the portal where he/she can view notice boards, allotted rooms to students and can book guest rooms as well.

## 5.2 Software Interfaces

The system will be interacting with a database written in Django (Python Framework) and will be working on web browsers like Google Chrome, Mozilla Firefox, Safari etc.

# 6.0 Non-Functional Requirements

## 6.1 Performance Requirements

The software should be able to run day and night continuously without getting disrupted on its own. If there is any delay in the connection of the database, Proper Error Message must be displayed. System must not exit without informing the user.

## 6.2 Safety Requirements

Information transmission should be securely transmitted to the server without any changes in information.

## 6.3 Security Requirements

The main security concern is for the User account (Academic office bearers and Assistants) hence proper login mechanism should be used to avoid hacking. The password must be kept in proper encrypted format. The systems’ back-end servers shall only be accessible to authenticated administrators.

## 6.4 Software Quality Attributes

The software should be portable so that it can run over multiple platforms. The software should not crash the user's machine or the remote server. It sends requests to download web pages. It should not eat excessive bandwidth on the network. It should not put extra load on the user's machine, making the user unable to do any other work. The software should be extensible and should be able to get easily used as a component to larger systems. The software should be maintainable and testable easily. The software should be foremost usable and should work as per the software requirement specifications. The software should be intuitive to use and easy to learn.

# 7.0 Overview of the Document

The remaining sections of this document provide a general description, including characteristics of the users of this project, the product's hardware, and the functional and data requirements of the product. General description with functional requirements of the project is discussed in section Overall Description of this document. External Interface Requirements gives the Hardware, Software and Communication Interfaces designing the Academic PSoftware. It also gives the user’s viewpoint of the product. System Features also gives the specific requirements of the product. It also discusses the various use cases included in the Project. Last Section gives details about the Non Functional requirements.

PHD comprehensive test

Application for TA