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# IIIT Software Engineering Course

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## Course forum vision document

Version <1.0>

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Vision document	Date: <02/02/2017>

## Revision History

Date	Version	Description	Author
<02/02/2017>	<1.0>	Initial vision document	Refer above

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## 1. Introduction

The purpose of this document is to collect, analyze, and define high-level needs and features of the course forum. It focuses on the capabilities needed by the stakeholders and the target users, and **why** these needs exist. The details of how the course forum fulfills these needs are detailed in the use-case and supplementary specifications.

### 1.1 Purpose

The purpose of this document is to present a detailed description of the course forum system. It will explain the purpose and features of the system, the interfaces of the system will do, the constraints under which it must operate and how the system will react to external stimuli. This document is intended for both stakeholders and developers of the system.

### 1.2 Definitions, Acronyms, and Abbreviations

SHS : Student Homework Submission.  
 SIS : Student Information System.  
 SGT : Group Grading Template.  
 AIS : Academic Information System.  
 CMS : Course Management System.

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Secondary University Systems:

All university systems which are shared by different departments, such as a central address book containing all kinds of personal information

### 1.3 References

INTERNET, TAS, IBM REQUESTPRO, INSTRUCTOR.

## 2. Positioning

### 2.1 Problem Statement

The problem of	Managing course forums and handling grades was difficult
affects	Student, Instructor, TA, University Administration
the impact of which is	Handling had to be done manually which would require lot of man hours.
a successful solution would be	Online course forum system which meets stakeholder requirements

3.

## 4. Stakeholder Descriptions

### 4.1 Stakeholder Summary

#### 4.1.1 Direct Stakeholders

Student	Students enrolled for course forum in the system.	Uploading solutions to homework checking grades ask doubts and discuss in forum provide feedback for course
Instructor/Lecturer	Instructor of a particular course.	Post homework , its solutions and course content like slides. post grades clear queries if needed.
Teaching Assistant	Assistant to the instructor for specific course	Post homework , quizzes solutions clear queries.

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#### 4.1.2 Indirect Stakeholders

University Administration	responsible for the maintenance and supervision of the institution , System and separate from the faculty or academics, although some personnel may have joint responsibilities.	Maintenance and construction  Supervision and support of campus computers and network (information technology).  Fundraising from private individuals and foundations ("development" or "advancement")
System Administrator	A <b>system administrator</b> , or sysadmin, is a person who is responsible for the upkeep, configuration, and reliable operation of computer <b>systems</b> .	Analyzing system logs and identifying potential issues with computer systems.  Applying operating system updates, patches, and configuration changes.  Adding, removing, or updating user account information, resetting passwords, etc.  Answering technical queries and assisting users.  Troubleshooting any reported problems.  Ensuring that the network infrastructure is up and running.

#### 4.1.3 Domain Stakeholders

University Grants Commission (UGC)	The University Grants Commission is a statutory organization established by an Act of Parliament in 1956 for the coordination, determination and maintenance of standards of university education.	Apart from providing grants to eligible universities and colleges, the Commission also advises the Central and State Governments on the measures which are necessary for the development of Higher Education.
All India Council for Technical Education (AICTE)	The All India Council for Technical Education (AICTE) was set up in 1945 as an advisory body and later on in 1987 given the statutory status by an Act of Parliament.	The AICTE grants approval for starting new technical institutions, for introduction of new courses and for variation in intake capacity in technical institutions. The AICTE has delegated to the concerned state governments powers to process and grant approval of new institutions, starting new courses and variations in the intake capacity for diploma level technical institutions.

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## 4.2 Assumptions and dependencies

Student themselves has to create account and we assume information provided by them on their profile are genuine. No dependencies on other systems.

## 4.3 User Environment

Users need to be connected to the web while using the system as there is no offline model. Currently system is developed on Django and in future it may be shifted to updated versions of Django. There are no external applications used as of now, but can be integrated with Central Authentication System of Institute.

## 4.4 Summary of Key Stakeholder or User Needs

Students :- Uploading solutions to homework, checking grades, ask doubts and discuss in forum and provide feedback for course.

Instructor/Lecturer :- Post homework, its solutions and course content like slides, post grades and clear queries if needed.

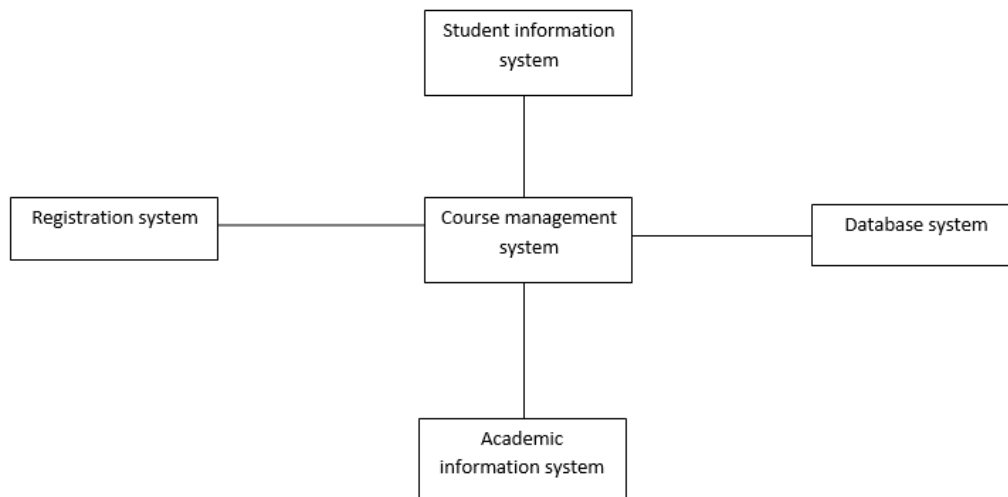
Teaching Assistant :- Post homework, quizzes solutions and clear queries.

All these problems can be solved using online course forum mentioned.

# 5. Product Overview

## 5.1 Product Perspective

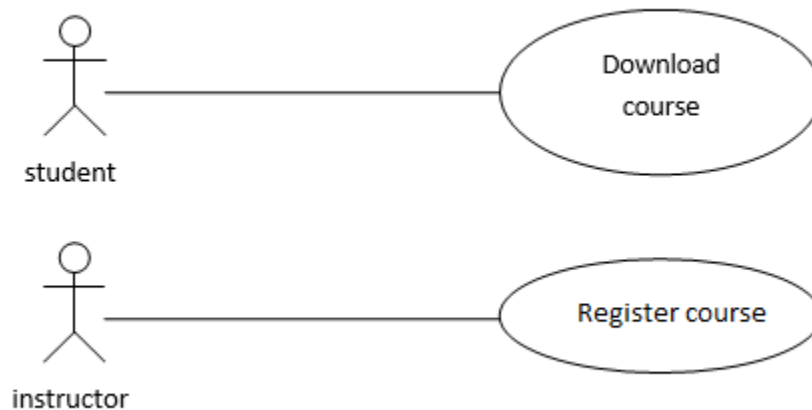
The system will be operate within university environment. This environment has another systems that will interact with this system so we need interfaces between this systems.



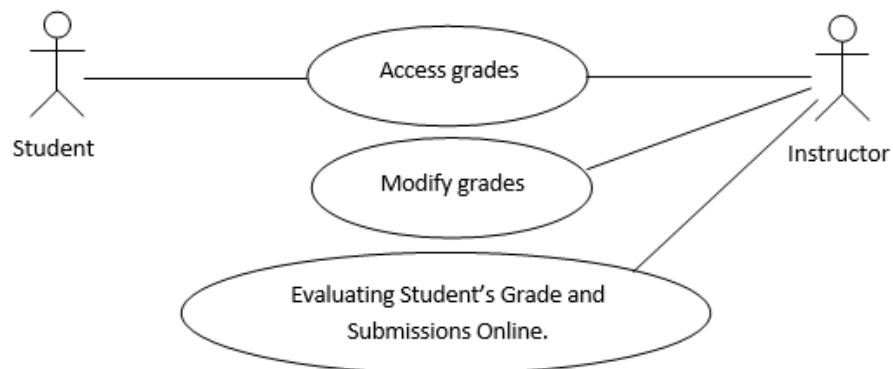
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## 6. Product Features

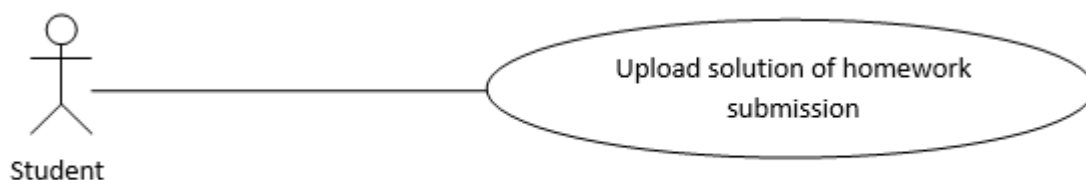
The system shall be able to Create Courses.



The system shall be capable of Managing Student Grades.

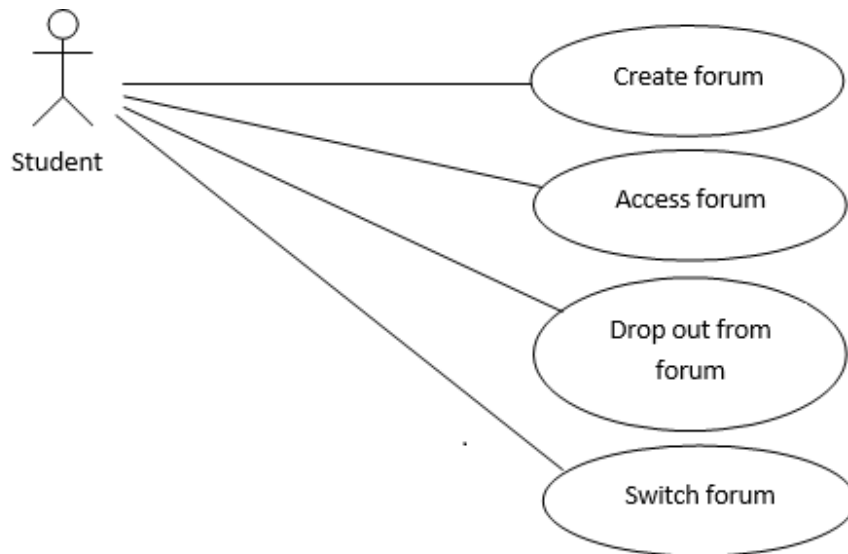


The system shall be capable of automatically accepting Homework Submissions.

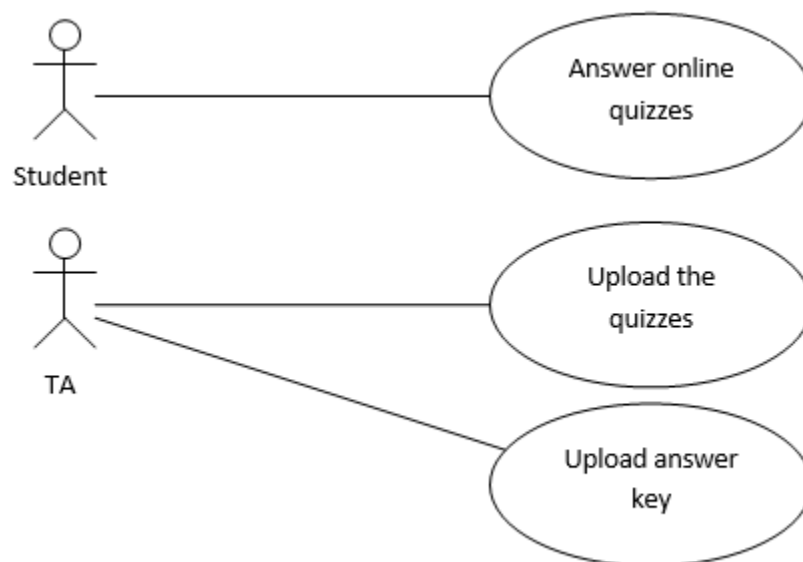


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The system shall support forum Management features especially important for courses with group projects, this is especially important for large classes.



The system should provide Online Quizzes.





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Requirements Use Cases	Category	Priority
Create Courses	Must have	High
Managing Student Grades	Could have	Medium
Homework Submissions	Should have	High
Forum	Must have	Medium
Online Quizzes	Could have	Low

## 7. Other Product Requirements

### 7.1 Non-Functional Requirements

- *Product Requirements*

- *Usability Requirements*

The system shall be operational within 1 minute of starting-up and should be user friendly.

- *Efficiency Requirements*

- *Performance Requirements*

**Response Time :-** Average response time shall be less than 2 second.

**Throughput :-** The system shall accommodate 1000 booked per minute.

- *Space Requirements*

The system accommodate 4000 concurrent users.

- *Reliability Requirements*

The system shall not be down more 2 times in year

- *Portability Requirements*

The system should be portable online on any browser.

- *Availability Requirements*

- **Recovery Time**

In case of a system failure, redundant system shall resume operations within 30 seconds.

Average repair time shall be less than 1 hour.

- **Start-up/Shutdown Time**

The system shall be operational within 1 minute of starting-up.

- *Organizational Requirements*

- *Delivery Requirements*

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System should be delivered in time, handling all requirements met

- *Implementation Requirements*

The system must run in windows operating system environment.

The system shall use oracle8i database for all data management tasks.

The System shall use Django framework for development.

- *Standards Requirements*

The system shall work based on XYZ-standard to keep copyright.

- *External Requirements*

- *Interoperability Requirements*

The system shall be highly interoperable and interperable with secondary university systems.

- *Ethical Requirements*

The system must follow all procedures ethical and legal rules.

- *Legislative Requirements*

- *Privacy Requirements*

*Support different roles:* The system shall support different roles for users, such as Instructors, Students, and administrative staff, the user logged in with given role should only be allowed access consistent with that role. **For example** a student shall only be allowed to see he/she grades not to modify it.

- *Safety Requirements*

*Firewall Protection:* The course management software system shall run inside a firewall.

## 7.2 Constraints

- *Business and Economic:*

The system must have all license , all other factors like cost marketing etc will least affect the system.

- *Environmental:*

The system shall work based on XYZ-standard to keep copyright and follow all rules posed by regularities like government, university etc

- *Technical:*

The system shall use oracle8i database for all data management tasks.

The System shall use Django framework for development.

- *System:*

The system must run in windows operating system environment. This environment has another systems that will interact with this system like student system , academic system etc

- *Schedule and Resources:*

The system shall store in the database no more than one million transactions.

If the database grows over this limit, old transaction shall be backed up and deleted from the operational database.

- *Dates the project has been committed to or limitations on the resources that the project must use*

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