

ITI Examination System

1. Introduction

This document outlines the business processes of the ITI Examination System to guide the development of the Entity-Relationship Diagram (ERD). It describes the key entities, their interactions, and the overall system workflow.

2. Users of the System

The system consists of three main user roles:

- **Students:** Fill in their application info, take courses in their track, and complete exams.
- **Instructors:** Teach courses, add questions with choices and answers, and contribute to the question pool, Generate Exam for his course only.
- **System Admins:** Assign instructors to courses and students to exams.

3. ITI Organizational Structure

- **Departments:** ITI consists of multiple departments.
- **Branches:** ITI operates across several branches.
- **Tracks:** Each branch contains multiple tracks.
- **Intakes:** ITI announces new intakes regularly, and students apply accordingly.

4. Student Lifecycle

1. ITI announces a new intake (e.g., Intake 45).
2. Applicants submit their information for a specific branch and track.
3. Applicants are screened based on their interview performance.
4. Accepted applicants become students; rejected applicants' data is stored for future reference.
5. Students in a specific track within a branch form a class.
6. Students take courses as part of their curriculum.
7. Upon course completion, students take exams.
8. If they pass, they progress toward graduation.
9. If they fail, they must retake the exam at a later time.
10. Successful students graduate from ITI.

5. Instructors in the Examination System

1. Instructors register as ITI members.
2. Each instructor belongs to a specific department and is assigned to teach specific courses.
3. Instructors teach courses for classes (students in a specific track and branch).
4. Their salary is based on the number of teaching hours.
5. Instructors contribute to the question pool by adding questions, choices, and correct answers.
6. Exams are generated automatically from a predefined question pool.

6. Examination Process

1. A question pool exists for each course, containing questions, choices, and correct answers.
2. The system generates an exam using random question selection from the pool.
3. The generated exam is assigned to a specific class.
4. Students take the exam and submit their answers.
5. The system auto-grades the exam and calculates the final score for the course.

This document provides a structured understanding of the ITI Examination System to assist the team in designing the ERD efficiently.