

# EMS

## BUSINESS REQRIMENT DOCUMENT

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## Executive Summary

This Business Requirements Document (BRD) outlines the requirements for the EMS Solution project. It contains both functional and non-functional requirements; the (To Be) proposed process once the solution is implemented. It is used to determine what needs to be done, and as a starting point for solution design.

## Project Description

Educational Management System (EMS) is an Enterprise Resource Planning (ERP) System that provides user-friendly dashboards with login access for teachers, non-teaching staff, students, parents and management personnel of educational institute. The various modules available in the EMS facilitate all the processes of the institute, from admission of new students to generating certificates when students complete their studies.

## Project Scope

### In Scope

In addition to all existing modules in fedena we would like to add the following requirement are in scope for this project:

- ❖ System Structure.
- ❖ Admission Requirements
- ❖ Registration Requirements
- ❖ Certifications Requirements
- ❖ Calendar Requirements
- ❖ Time Table Requirements
- ❖ Transportation Requirements
- ❖ Examination Requirements
- ❖ Track student performance Requirements
- ❖ News feed Requirements
- ❖ Results Requirements
- ❖ Human resource Requirements
- ❖ Finance Requirements
- ❖ Integration Requirements
- ❖ Reporting Requirements

### Business requirement:

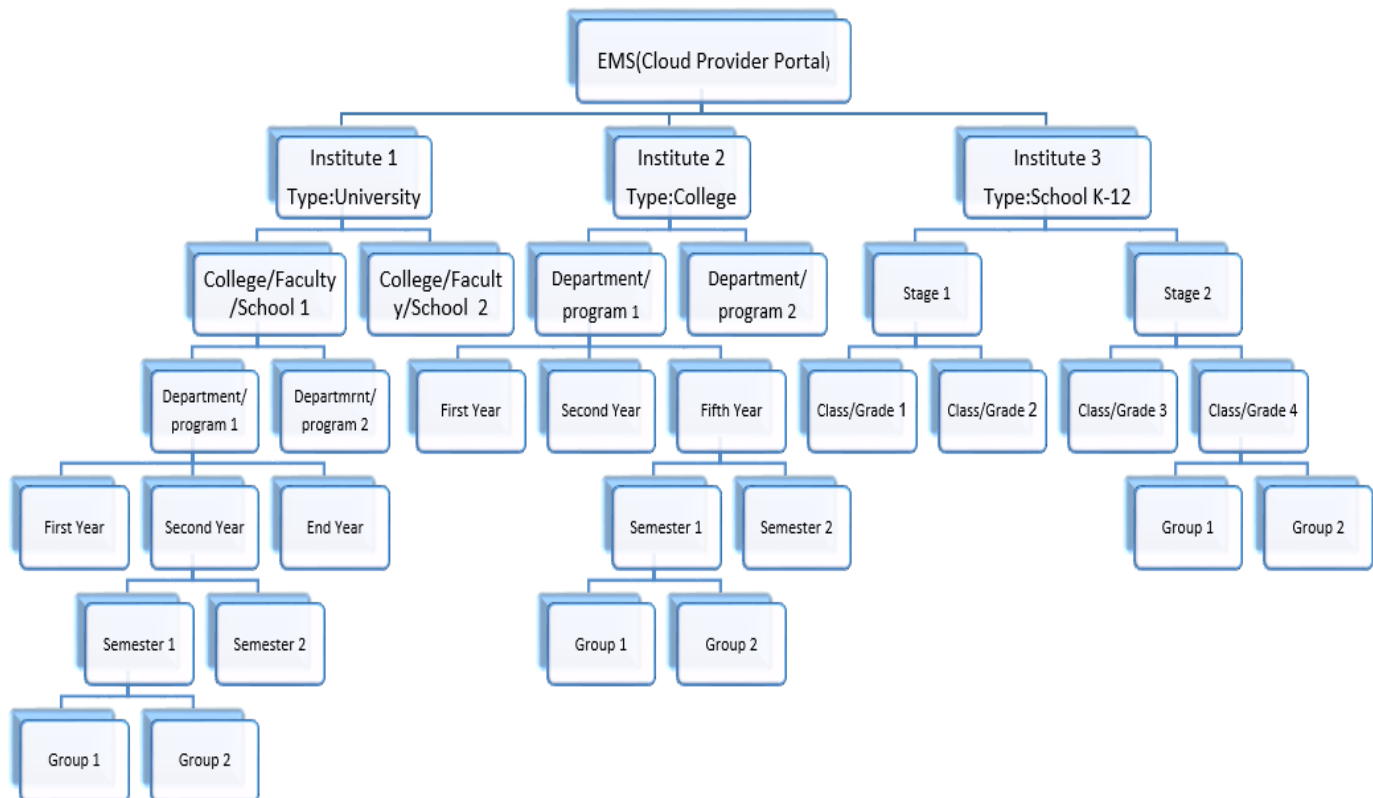
The requirements in this document are prioritized as follows:

Value	Rating	Description
1	Critical	This requirement is critical to the success of the project. The project will not be possible without this requirement.
2	High	This requirement is high priority, but the project can be implemented at a bare minimum without this requirement.
3	Medium	This requirement is somewhat important, as it provides some value but the project can proceed without it.

4	Low	This is a low priority requirement or a “nice to have” feature, if time and cost allow it.
5	Future	This requirement is out of scope for this project, and has been included here for a possible future release.

## Cloud Provider Portal requirement

This is the main administrative portal for the Educational Management System (EMS) service provider (SP), in this portal we need the role of cloud admin is responsible for creating and manage institute with different types according to the following structure.



Req#	Priority	Description	Impacted Stakeholders	Rationale
<b>System Structure Requirements (SR)</b>				
SR 001	1	The admin should be able to select the type of institute when creating a new institute	Cloud admin	Type of institute:(University, college, school)
SR 002	1	The structure of the institute when the type is university content colleges>Departments>Years>Semesters>Groups	System	
SR 003	1	The structure of the institute when the type is college content Departments>Years>Semesters>Groups	System	
SR 004	1	The structure of the institute when the type is school content Classes/Grades>Groups	System	

SR 005	1	The cloud admin must have access to customize and view the dashboard for all institutes	Cloud admin	
SR 006	1	The institute admin must have access to customize and view dashboard for institute details	Institute Admin	
SR 007	1	The institute admin responsible for create and manage Colleges/ Faculty of institute when type of institute is university	institute admin	
SR 008	1	The institute admin responsible for create and manage Departments of Faculty	institute admin	
SR 009	1	The institute Manager must have access to view dashboard for institute details	institute Manager	

### Functional requirement:

Req#	Priority	Description	Impacted Stakeholders	Rationale
<b>Admission Requirements (FR-A)</b>				
<b>Undergraduate Admission:</b> <b>Admission is only when new applicants are accepted through the Ministry of higher education or applying for joining the institute to the first semester in the first year.</b>				
FR-A-001	1	The admission officer should be able to import accepted students list (csv file).	Admission.	Students list template (student form number, collage, student name)
FR-A-002	1	The admission officer should specify multiple registration timeframes.	Admission.	Specify the start date and end date allowed to admission.
FR-A-003	1	The admission officer should be able to customize student form for the students.	Admission.	The same admission form showed in fedena website.
FR-A-004	1	Show admission view from EMS through university website.	student	Admission view contains (student form number)
FR-A-005	1	Enter form number	Student.	Form number unique number.
FR-A-006	1	Check form number with exported student list.	system	If form number invalid block the page.  Return an invalid form number message
FR-A-007	1	Retrieve Student info and display the info for the student	System	Student info means( student name, collage)
FR-A-008	1	Proceed to Fill up the initial student data	Student.	Student data: email/ phone number/password

FR-A-009	1	Create initial student account by form no, Email and selected password	System	
FR-A-010	1	Send verification code or link to student phone or email.	System	When student submit initial student data.
FR-A-011	1	Enter verification code/ verification link	Student.	Verification code that send to student email.
FR-A-012	1	Complete student data and Attach student photo, national id number and student certificate.	Student.	
FR-A-013	1	Submit the form	Student.	After submit the form will be send to admission office
FR-A-014	1	Receive student's applications	Admission.	
FR-A-015	1	Check student's applications	Admission.	Manual compare.
FR-A-016	1	Confirm/unconfirmed student applications	Admission.	Confirm: send notification to student to complete medical check and personal interview. Unconfirmed: send notification to student to complete admission process at university.
FR-A-017	1	Update student application form by check medical status and personal interview.	Admission	Medical status and personal interview are check boxes in application form.
FR-A-018	1	Select appropriate fees category /student category.	admission	
FR-A-019	1	Approve and send the application to finance department.	admission	
FR-A-020	1	Receive student's applications	Finance.	
FR-A-021	1	Student pay online/ other method	Student	
FR-A-022	1	update student application (paid/unpaid)	Finance.	When paid / unpaid
FR-A-023	1	Generate student index(admission number)	System.	
FR-A-024	1	Receive payment notification.	Registrar.	
FR-A-025	1	Update student account by admission number.	System	Update username from form number to admission number.
FR-A-026	1	Sent admission number and password to student email.	System	
FR-A-027	1	Prepare id card template.	Admission.	
FR-A-028	1	Print out the id card.	Admission.	

FR-A-029	1	Receive notification when id card is ready.	Student.	
<b>Graduate Admission:</b> <b>The process of apply and admission for graduate degree like diploma, master and PHD</b>				
FR-A-030	1	Specify multiple admission timeframe	Admission officer	
FR-A-031	1	Customize the admission form for each program (master/diploma/PhD) and the required documents needed to apply	Admission officer	
FR-A-032	1	Browse university website to apply for Master/Diploma/PhD	Applicant	
FR-A-033	1	Choose either Master/Diploma/PhD	Applicant	
FR-A-034	1	Request for Application form	Applicant	By entering their name and email
FR-A-035	1	Redirect to payment processor (SyberPay)	System	
FR-A-036	1	Pay online	Applicant	
FR-A-037	1	Send automatically generated form number to Applicant in their email with a link to the admission page	System	
FR-A-038	1	Redirect to the EMS's admission view	System	When the applicant clicks the link sent in the email. The admission view prompt the applicant to enter the form number
<b>When Apply to Master</b>				
FR-A-039	1	Enters form number to view the application form	Applicant	
FR-A-040	1	Check the form number	System	If incorrect, show error message
FR-A-041	1	Fill the application form	Applicant	If correct
FR-A-042	1	Attach required documents	Applicant	
FR-A-043	1	Submit the form	Applicant	
FR-A-044	1	Send email to applicant of application completeness	System	
FR-A-045	1	Review Admission Applications	Admission officer, Graduate Studies	
FR-A-046	1	Confirm/Decline Applications	Admission officer	
FR-A-047	1	Generate IDs for confirmed applicants	System	
FR-A-048	1	Send IDs of applicants to EEE	Admission officer	

FR-A-049	1	Receive applicants IDs to prepare for English Exams	English Unit	
FR-A-050	1	Schedule English Equivalent Exam	Admission officer	
FR-A-051	1	Notify applicant of English Equivalent Exam via email	System	
FR-A-052	1	Send names of applicants who passed the exam to admission office/graduate studies	English unit	
FR-A-053	1	Receive names of applicants who passed the exam	Admission officer, Graduate Studies	
FR-A-054	1	Approve final list of accepted applicants	Graduate Studies	
FR-A-055	1	Generate student university ID for accepted students	System	
FR-A-056	1	Generate Acceptance Letters for accepted students	Admission officer	Acceptance letters contains the name, Student university ID and financial details (tuitions)
FR-A-057	1	Send acceptance letters to students via email	System	
FR-A-058	1	Send final List to programme coordinator	Admission officer/System	
FR-A-059	1	Send final list to finance	Admission officer	
FR-A-060	1	Redirect student to pay tuitions fees online	System	
FR-A-061	1	Update payment status for each applicant	System	
FR-A-062	1	Send list of admitted students who completed payment	System	
FR-A-063	1	Notify students to proceed registration at registrar office	System	
<b>When Apply to PhD</b>				
FR-A-064	1	Enters form number to view the application form	Applicant	
FR-A-065	1	Check the form number	System	If incorrect, show error message
FR-A-066	1	Fill the application form	Applicant	If correct
FR-A-067	1	Attach required documents	Applicant	
FR-A-068	1	Submit the form	Applicant	
FR-A-069	1	Send email to applicant of application completeness	System	
FR-A-070	1	Review Admission Applications	Admission officer, Graduate Studies	
FR-A-071	1	Confirm/Decline Applications	Admission officer	



FR-A-072	1	Generate IDs for confirmed applicants	System	
FR-A-073	1	Send IDs of applicants to EEE	Admission officer	
FR-A-074	1	Receive applicants IDs to prepare for English Exams	English Unit	
FR-A-075	1	Schedule English Equivalent Exam	Admission officer	
FR-A-076	1	Notify applicant of English Equivalent Exam via email	System	
FR-A-077	1	Send names of applicants who passed the exam to admission office/graduate studies	English unit	
FR-A-078	1	Receive names of applicants who passed the exam	Admission officer, Graduate Studies	
FR-A-079	1	Approve final list of accepted applicants	Graduate Studies	
FR-A-080	1	Generate student university ID for accepted students	System	
FR-A-081	1	Generate Acceptance Letters for accepted students	Admission officer	Acceptance letters contains the name, Student university ID and financial details (tuitions)
FR-A-082	1	Send acceptance letters to students via email	System	
FR-A-083	1	Send final List to programme coordinator	Admission officer/System	
FR-A-084	1	Send final list to finance	Admission officer	
FR-A-085	1	Redirect student to pay tuitions fees online	System	
FR-A-086	1	Update payment status for each applicant	System	
FR-A-087	1	Send list of admitted students who completed payment	System	
FR-A-088	1	Notify students to proceed registration at registrar office	System	
<b>When Apply to Diploma</b>				
FR-A-089	1	Enters form number to view the application form	Applicant	
FR-A-090	1	Check the form number	System	If incorrect, show error message
FR-A-091	1	Fill the application form	Applicant	If correct
FR-A-092	1	Attach required documents	Applicant	
FR-A-093	1	Submit the form	Applicant	
FR-A-094	1	Send email to applicant of application completeness	System	

FR-A-095	1	Review Admission Applications	Admission officer, Graduate Studies	
FR-A-096	1	Confirm/Decline Applications	Admission officer	
FR-A-097	1	Generate IDs for confirmed applicants	System	
FR-A-098	1	Send IDs of applicants to EEE	Admission officer	
FR-A-099	1	Receive applicants IDs to prepare for English Exams	English Unit	
FR-A-100	1	Schedule English Equivalent Exam	Admission officer	
FR-A-101	1	Notify applicant of English Equivalent Exam via email	System	
FR-A-102	1	Send names of applicants who passed the exam to admission office/graduate studies	English unit	
FR-A-103	1	Receive names of applicants who passed the exam	Admission officer, Graduate Studies	
FR-A-104	1	Approve final list of accepted applicants	Graduate Studies	
FR-A-105	1	Generate student university ID for accepted students	System	
FR-A-106	1	Generate Acceptance Letters for accepted students	Admission officer	Acceptance letters contains the name, Student university ID and financial details (tuitions)
FR-A-107	1	Send acceptance letters to students via email	System	
FR-A-108	1	Send final List to programme coordinator	Admission officer/System	
FR-A-109	1	Send final list to finance	Admission officer	
FR-A-110	1	Redirect student to pay tuitions fees online	System	
FR-A-111	1	Update payment status for each applicant	System	
FR-A-112	1	Send list of admitted students who completed payment	System	
FR-A-113	1	Notify students to proceed registration at registrar office	System	
<b>Registration Requirements( FR-R ):</b> Registration for the new academic year ... required when students are being transferred from one Year to the next Year, there is two type of registration normal registration and registration by subjects				
<b>Normal Registration Requirements</b>				
FR-R-001	1	The registrar should specify multiple registration timeframe.	Registrar.	Specify the start date and end date allowed to register.

FR-R-002	1	Registrar should be able to update student's fees category.	Registrar.	
FR-R-003	1	Send notification by amount fees and the date to all student.	System.	
FR-R-004	1	Student can see List of all fees instalment and their due date	Student.	
FR-R-005	1	Student pay fees online/other methods.	Student/ Finance.	
FR-R-008	1	Update student's fees status.	System.	
FR-R-009	1	Notify student when fees paid.	System.	
FR-R-010	1	Receive student list and Ability to view students list	Registrar.	Student list contain (student name, collage, department, fees status)
FR-R-011	1	Update student list when student pay	System.	
FR-R-014	1	Prepare id card template.	Registrar.	
FR-R-015	1	Print out the id card.	Registrar.	
FR-R-016	1	Receive notification when id card is ready.	Student.	

#### Registration by Subjects Requirements

FR-R-017	1	The registrar should specify registration timeline.	Registrar	If a student try to register after the deadline of registration a pop up message will appear (sorry the registration time has expired).
FR-R-018	1	The registrar should be able to customize application form for the students.	Registrar	
FR-R-019		Install study plans for each major	Administrator	
FR-R-020		Manage credit hours rules	Registrar	To specify types of student (Whether part time or full time)
FR-R-021	1	Login into system	Student	
FR-R-022	1	Enter student admission number	Student	
FR-R-023		Display student data	Student	
FR-R-024	1	Display Study Plan	Student	System will display the predefined study plan based on student major and level. Each subject associated with its credit hours.
FR-R-025	1	Select Subject	Student	

FR-R-026	1	Display status of subjects	System	Using different colors to highlight the status of each course. For example, the color "Red" to indicate that the subject is mandatory to select/study and so on.
FR-R-027	1	Calculate of subjects' credit hours	System	A calculation of the selected subjects credit hours.
FR-R-028	1	Compare selected with required credit hours (minimum credit hours)	System	Compare the credit hours of the selected subjects with the mandatory credit hours student must take to pass to second level.
FR-R-029	1	Check Financial Status	System	Backend end check, to decide if the student is able to proceed registration
FR-R-030	1	Press register	Student	
FR-R-031	1	Display Notification of Incomplete financial fees	System	In case of student has remaining unpaid fees.
FR-R-032	1	SyberPay redirection	System	So student can pay fees online
FR-R-033	1	Pay online	Student	
FR-R-034	1	Submit Payment	Finance	
FR-R-035	1	Display Student's Selection	Academic Advisor	
FR-R-036	1	Submit Student's Selection	Academic Advisor	
FR-R-037	1	Update Student's Selection	Academic Advisor	
FR-R-038	3	Write reasons of update	Academic Advisor	
FR-R-039	1	Submit updates	Student	
FR-R-040	1	Classify student to Part time/Full time.	System	Based on overall credit hours. This process goes for all students, except Medicine/pharmacy/physiotherapy students, they must be full time students.
FR-R-041	1	Specify the seniority of students based on credits hours covered	System	Freshmen <30 credit hours , Sophomore 30-70 credit hours, Junior A 71-107 credit hours , Junior B 108-145, 145> Senior
FR-R-042	3	View Status of Registration	Registrar	Observe the ongoing process between Academic Advisor and Student.
FR-R-043	1	Receive Final application	Registrar	
FR-R-044	1	Approve Final Application	Registrar	
FR-R-045	1	Receive notification when registration complete.	Student.	
FR-R-046	1	Prepare id card template.	Registrar.	
FR-R-047	1	Print out the id card.	Registrar.	
FR-R-048	1	Receive notification when id card is ready.	Student.	

**Certifications Requirements (FR-C):** Certifications requirement is a process of generation and extracts all type of student certificate like undergraduate certificate, Registration certificate, and other certificate types.

FR-C-001	1	Create certificate type.	Registrar	
FR-C-002	1	Create certificate template for each certificate type.	Registrar	
FR-C-003	1	Create certificate fees category for each certificate type.	registrar	
FR-C-004	1	A student certifications screen with functions like : request a certificate, show older certificates	Student.	Student profile page with tab to request a certificate.
FR-C-005	1	Select certification type.	Student	
FR-C-006	1	The registrar receive the request	Registrar.	A table with all requests list
FR-C-007	1	The registrar validate the request.	Registrar.	Confirm/unconfirmed In case of unconfirmed error message should sent to student.
FR-C-008	1	Send validate student request list to student affairs /admission officer/dean of collage/ REED coordinator/ library officer	system	
FR-C-009	1	Receive validate student request list.	student affairs /admission officer/dean of collage/ REED coordinator/ library officer	
FR-C-010	1	Confirm/unconfirmed validate student request list	student affairs /admission officer/dean of collage/ REED coordinator/library officer	They all have to confirm the request if not the system should send an error message to student.
FR-C-011	1	Notify student to pay certification fees	System	SMS/Push notification/email
FR-C-012	1	The student pay the fees online/other method	Student	SyberPay/other methods
FR-C-013	1	The finance receive payment.	System/Finance	Syberpay/ other methods
FR-C-014	1	Update student certification payment status	System	
FR-C-015	1	The registrar receive the certification request list.	Registrar	The paid certification list only.

FR-C-016		Certificate template should be filled by student data.	System	
FR-C-017	3	Notify student with certification request status.	Student	SMS/Push notification (on progress/confirm/unconfirmed)
FR-C-018	1	Registrar confirm teacher committee approve.	registrar	This confirmation done by registrar after take approve manually from teacher committee.
FR-C-019	1	The registrar submit the request to the certifications department or print certificates.	registrar	
FR-C-020	1	The certifications department receives the request	certifications department	
FR-C-030	1	The certifications department approve	certifications department	
FR-C-031	1	The certifications department print the certificates.	certifications department	
FR-C-032	1	The registrar send to student when certification is ready.	Registrar.	
FR-C-033	1	The student receives a notification (certificate ready for collection)	Student	
<b>Calendar Requirements (FR-Ca):</b>				
FR-Ca-001	1	Enter calendar for academic year	Registerer	
FR-Ca-002		Enter no of semesters and each semester duration ( starting date, end date)	Registerer	
FR-Ca-003	1	Enter midterms and final exams start and end date for each semester	Registerer	
FR-Ca-004	1	Enter national and special events, vacations, holidays.	Registerer	
FR-Ca-005	1	Generate academic year calendar that contains all above information. Along with the ability to add filters in the report per: week, semester and full year.	System	
<b>Time Table Requirements (FR-T):</b>				
FR-T-001	1	Ability to add calendar	Registerer.	
FR-T-002	1	Ability to add courses	Registerer.	

FR-T-003	1	Ability to enter subjects, subjects load and associate teachers to each subject	Registerer.	
FR-T-004	1	The Classroom management. Should be able to add the classroom specifications (Capacity, equipment's available, etc.)	Classroom management.	
FR-T-005	1	Ability to specify class timing and how many classes per day.	Registerer.	
FR-T-006	1	Ability to Assign a Specific room to a class.	Classroom management.	
FR-T-008	1	Modify Classrooms. (Assign, add, delete, edit specifications, etc..)	Classroom management.	
FR-T-009	1	Ability to Search rooms by Capacity.	Classroom management	
FR-T-010	1	Ability to Search rooms by equipment.	Classroom management	
FR-T-011	1	Ability to Search rooms by specific time	Classroom management	
FR-T-012	1	Ability for teacher to send a request for a classroom to the registerer	Teacher	
FR-T-013	1	Ability to send a request for a classroom to the classroom management.	Registerer.	
FR-T-014	1	Ability to enter if The lecture has been taken or not.	Classroom management,	
FR-T-015	1	From above entered data the system should be able to auto generate timetables.	System.	

**Examination requirements (FR-E):**

FR-E-001	1	Head of academic affairs should be able to send reminder of examination date to all deans.	Academic affairs.	The start date and end date of examination.
FR-E-002	1	Receive examination reminder.	Dean of collage.	The start date and end date of examination.
FR-E-003	1	Choose all subjects for each batch to be add it into examination timetable.	Dean of collage.	

FR-E-004	1	Create examination timetable	Registrar.	
FR-E-005	1	Receive examination time table	Examination officer.	
FR-E-006	1	Notify teacher to upload their exams	System.	
FR-E-007	1	Teacher receive notification to prepare the exam.	Teacher.	
FR-E-008	1	Upload exam.	Teacher.	Encrypted.
FR-E-009	1	Receive exams.	Examination officer	The only user can decrypt exams.
FR-E-010	1	Proofread exam	Examination officer/teacher	
FR-E-011		Generate list of all student and highlight the special cases.		Special cases: suspending, not allowed taking exam, alternative.
FR-E-012	1	Prepare Print out exams.	Examination officer	
FR-E-013	1	Customize examination information form.	Examination officer	Examination information form contain(exam date, subject, room number, teacher, exam invigilators)
FR-E-014	1	Filling the examination information form	Examination officer.	Examination information form contain(exam date, subject, room number, teacher, exam invigilators)
FR-E-015	1	Submit form.		
FR-E-016		Select method by which student will not be allowed to take the exam and specify related condition.	registrar	Methods: attendance, fees, none
FR-E-017	1	Select subject by attendance.	registrar	If attendance method being chosen.
FR-E-018	1	Choose attendance critical percentage (customizable).	registrar	
FR-E-019	1	Create list of all students and their attendance percentage.	system	
FR-E-020	1	Notify student in critical percentage.	system	
FR-E-021	1	Create list of all students and their payment status.	system	
FR-E-022	1	Notify students with pending payment statement depend on condition	system	
FR-E-023	1	There should be ability to have exam's	Teacher.	



		questions' bank that shall record questions entered by the teacher for each subject, the categorization or sequence of the exam bank should be based on: year, subject, and topic then questions.		
FR-E-024	1	Based on the above entered questions the system should be able to automatically generate exams for each subject from the available questions.	System.	
<b>Track student performance requirements (FR-P):</b>				
FR-P-001	1	Record all students; marks, attendance, course works.	System.	
FR-P-002	1	The performance should be filtered by term, year or subject.	System.	
FR-P-003	1	Generate a report for batch or student performance based on recorded information.	System.	
<b>News feed requirements (FR-N):</b>				
FR-N-001	1	Create new activity.	Administrative staff , teaching staff	Custom activity form
FR-N-002	1	select publishing list	Administrative staff , teaching staff	List: college, department, class, batch, parents, teachers.
FR-N-003	1	publish the new activity information to the selected list dashboard	Administrative staff, teaching staff	
FR-N-004		A pop up notification at mobile version or SMS	system	
<b>Results Requirements (FR-Re):</b>				
FR-Re-001	1	Enters student's marks one by one into the system	Teacher	
FR-Re-002	1	Import student's marks in bulk	Teacher	Using excel sheets or CSV files
FR- Re -003	1	Send students marks to exam's authorized personnel	Teacher	Exam's authorized personnel: dean of collage, teacher committee, examination officer.
FR-Re-004	1	Receive subject's marks.	exam's authorized personnel	Exam's authorized personnel: dean of collage, teacher committee, examination officer.
FR-Re-005		Approve subject's marks.	exam's authorized personnel	

FR-Re-006				
FR-Re-007		Select grading system.	Administrative	
FR-Re-008		Calculate the results using selected grading system.	system	
FR-Re-009	1	Filter results by marks	exam's authorized personnel/teacher	To enable standardization
FR-Re-010	1	update results based on marks groupings	exam's authorized personnel	To enable standardization
FR-Re-011	1	Customize standardization rules	exam's authorized personnel	Allow dean to customize rules for standardizations. For example, pass students who only need 5 marks to pass. This to allow automatic standardization
FR-Re-012	1	apply automatic standardization	exam's authorized personnel	Based on customized standardization rules.
FR-Re-013	1	Send final results to Registrar	exam's authorized personnel	
FR-Re-014	1	Receive final results	Registrar	
FR-Re-015	1	Filter students' results	Registrar	Based on their financial status
FR-Re-016	1	Hide results of students with pending financial status	Registrar	
FR-Re-017	1	Post student's final result to student portal.	Registrar	
FR-Re-018	1	Send Notification or SMS to student	System	Automatic after registrar post the results
FR-Re-019	1	View results	Student	Student can only view their result
FR-Re-020	1	Count Number of passed subjects	System	
FR-Re-021	1	Count Number of failed subjects	System	
FR-Re-022	1	Manage student assessment rules for pass	Registrar/Exam office	Assessment rules: sit for supplement rule, repeat rules, and termination rules.
FR-Re-023	1	Group student who can pass to next year	System	
FR-Re-024	1	Group student who must repeat	System	
FR-Re-025	1	Group students who must attend summer course or supplements	System	
FR-Re-026	1	Issue letter of termination to students who failed	System	Based on assessment rules
FR-Re-027	1	Notify students who needs to sit for summer course or supplements	System	Based on assessment rules
<b>Performance Management Requirements (FR-Pm)</b>				

Staff performance management is a continuous process for identifying, evaluating and developing the work performance of teachers, so that the goals and objectives of the university are more effectively achieved, while at the same time benefiting staff in terms of recognition of performance, professional development and career guidance.

FR-Pm-001	1	Create Questionnaire	Head of Departments	For each reviewer involved in the assessment. (e.g. Students, Peers, Supervisors & themselves)
FR-Pm-002	1	Specify assessment scales	Head of Departments	Answers of questions based on labelled quantitative scales to facilitate the calculation of the overall assessment.
FR-Pm-003	1	Select reviewers and staff member under review for each questionnaire	Head of Departments	
FR-Pm-004	1	Schedule deadline for questionnaires	Head of Departments	
FR-Pm-005	1	Submit questionnaire	Head of Departments	To be viewed by reviewers.
FR-Pm-006	1	Receive Notification	Reviewers	
FR-Pm-007	1	View questionnaire	Reviewers	
FR-Pm-008	1	Respond to Questionnaire	Reviewers	
FR-Pm-009	1	Submit response	Reviewers	
FR-Pm-010	1	Receive Responses	Head of Departments	
FR-Pm-011	1	View Responses	Head of Departments	
FR-Pm-012	1	Filter Responses by staff member under review	Head of Departments	
FR-Pm-013	1	Calculate overall assessment for each staff member	Head of Departments	After all responses, related to individual staff member, get delivered
FR-Pm-014	1	Assessment Calculation	System	
FR-Pm-015	1	View result of overall assessment for each staff member	Head of Departments	
FR-Pm-016	1	Share result of overall assessment	Head of Departments	With Staff member under review, Dean, Vice Dean of Academic Affairs
FR-Pm-017	1	Receive result of overall assessment	Vice Dean of Academic Affairs/Staff member/ Dean	
FR-Pm-018	1	Assign tasks with subtasks for each staff member	Administrative Staff	
FR-Pm-019	1	Set deadlines for tasks assigned	Administrative Staff	

FR-Pm-020	1	Set thresholds for tasks accomplishment in compare to weeks	Administrative Staff	For example, 50% of the task must be accomplished by the seventh week of the academic calendar. This is to warn staff member of task's criticality and to set boundaries for tasks' timeframes.
FR-Pm-021	1	Notify staff member of tasks	System	
FR-Pm-022	1	check tasks assigned to them	Staff Member	
FR-Pm-023	1	Regular reminder to staff member to set status for tasks	System	
FR-Pm-024	1	set percentages for tasks' accomplishments	Staff Member	
FR-Pm-025	1	Mark sub-task as accomplished/completed	Staff Member	If staff member can't tell the percentage. System can calculate the overall percentages based on sub-tasks marked as completed.
FR-Pm-026	1	Remind staff of tasks' deadlines	System	
FR-Pm-027	1	Set reasons of unaccomplished tasks, if any.	Staff Member	
FR-Pm-028	1	Calculate the overall percentages based on sub-tasks marked as completed	System	
FR-Pm-029	1	view tasks status on regular basis	Administrative Staff	
FR-Pm-030	1	Check reasons of unaccomplished tasks, if any.	Administrative staff	
FR-Pm-031	1	Filter tasks based on their accomplishment status	Administrative staff	
FR-Pm-032	1	Send report on tasks accomplishment to dean	Administrative staff	
FR-Pm-033	1	Receive tasks reports	Dean	
FR-Pm-034	1			
FR-Pm-035	1	assign teaching audit team	Vice dean	
FR-Pm-036	1	Notify assigned audit team members	System	
FR-Pm-037	1	Create audit checklist	Head of audit team	
FR-Pm-038	1	view audit checklist	Audit team member	
FR-Pm-039	1	Fill audit checklist to each teaching staff	Audit team member	

FR-Pm-040	1	Give rating to each teaching staff	Audit team member	Ranging from “Outstanding” to “Satisfactory” and ending with “Trainable”. And so on.
FR-Pm-041	1	Send audit results to vice dean	Head of audit team	
FR-Pm-042	1	receive the results	Vice dean	
FR-Pm-043	1	Approve the results	Vice dean	
FR-Pm-045	1	Receive audit results	Dean	
FR-Pm-046	1	Filter teaching staffs based on ratings	Dean	
FR-Pm-047	1	Select teaching staff members that needs training based on ratings	Dean	
FR-Pm-048	1	Send list of teaching staff that needs training	Dean	
FR-Pm-049	1	Receive list of teaching staff that needs training	Training unit	
<b>New Indicator Form</b>				
FR-Pm-050		Add new indicator		
FR-Pm-051	1	Specify indicator’s properties		Name, criteria, group, input variable (can be retrieved from other modules. For example, the “Effective Teaching” indicator is calculated based on the input variable “result “retrieved from the Student Results Module.), Calculation formula and threshold.
FR-Pm-052	1	Submit form for approval		
FR-Pm-053	1	Receive new indicator form’s request		
FR-Pm-054	1	Respond to request		Response options: <ul style="list-style-type: none"> <li>• Accept.</li> <li>• Modify and Accept.</li> </ul> Reject.
<b>Indicator-Staff Association</b>				
FR-Pm-049	1	View indicators list		With capability to share it.
FR-Pm-049	1	Add staff member		Selection options: <ul style="list-style-type: none"> <li>• Select All.</li> <li>• Select based on specific filter (academic rank, position)</li> </ul> Select particular staff member.
<b>Staff Performance Report</b>				
FR-Pm-049	1	Generate staff performance report	Administrative Staff	Based on specific input criteria.
<b>Recruitment Requirements</b>				

FR-Ru-001		Request for new job.	Dean of collage/department h	
FR-Ru-002	1	Send request to Academic affairs.	Dean of collage.	
FR-Ru-003	1	Receive the request confirm/unconfirmed	Academic affairs.	
FR-Ru-004		Send request to HR officer	Academic affairs.	If confirmed by Academic affairs
FR-Ru-005	1	Receive the request confirm/unconfirmed.	HR officer.	
FR-Ru-006	1	Announce for new job in website/other method	HR officer.	Integrate system with institute website
FR-Ru-007	1	Customize application form for new job	HR officer.	
FR-Ru-008	1	Apply for new job online.	Applicant.	View application form into institute website.
FR-Ru-009	1	Receive Applicant applications	HR officer	
FR-Ru-010	1	Screened application	HR officer	
FR-Ru-011	1	send email to candidates for interview	HR officer	
FR-Ru-012	1	Select and send email for approved employee from candidates list to complete employment process	HR officer	
FR-Ru-013	1	Cerate employee no and complete employee information (employee admission)	HR officer	
FR-Ru-014	1	Create contract templet	HR officer	
FR-Ru-015	1	Customize contract for new employee	HR officer	
<b>Employee leaves Requirements</b>				
FR-EI-001	1	HR officer should be able to create leave type.	Dean of collage.	
FR-EI-002	1	Create leave groups.	HR officer.	Based on employee position or employee gender or employee working years.
FR-EI-003	1	Manage leave types		Update, delete, and add.
FR-EI-004	11	Assign leave types to leave group		
FR-EI-005	1	Add employee to leave group		Based on employee position or employee gender or employee working years.
FR-EI-006	1	Employees should be able to see their leaves and its status.	HR officer	
FR-EI-007	1	Employee should be able to apply for leave.	Employee.	

FR-EI-008	1	Receive employee's leave application to confirm/unconfirmed.	Dean of collage	
FR-EI-009	1	Receive employee's leaves request.	HR officer	
FR-EI-010	1	approve employee's leaves request	HR officer	
FR-EI-011		HR officer should approve medical approval for sick leaves.	HR officer	
FR-EI-012	1	Update employee leaves status.	system	
FR-EI-013	1	Notify employee if the leave request approved or not approved	system	
FR-EI-014	1	Notify employee before starting leave day.	system	
FR-EI-015		Notify employee before ending leave day.	system	

#### Assigning Academic Advisor Requirements

Each student must have an academic adviser who approves the student's semester schedule and monitors her academic performance. First Year Students are assigned advisers from a group of advisers from the faculty members appointed by the Dean of the respective School. Post first year students are assigned advisers by the Dean of the respective school from the faculty of the School.

Names of advisees and their respective advisers are posted at the beginning of each year, both adviser and student are expected to maintain regular meetings. A student may request the Dean of the School to change her academic advisor, if need be.

FR-AA-001	1	assign a faculty member as an academic advisor to a list of students	Dean	
FR-AA-002		Notify each selected academic advisor	System	
FR-AA-003		Notify each student with their assigned academic advisor	System	
FR-AA-004		Notify selected academic advisors with training program	Academic Supervisor	
FR-AA-005		Send job description to each academic advisor	Dean	
FR-AA-006		Receive job description	Academic Advisor	
FR-AA-007		Send academic policy and academic rules/regulations to each academic advisor	Dean	
FR-AA-008		Receive academic policy and academic rules/regulations	Academic Advisor	
FR-AA-009	1	View list of students (advisees)	Academic Advisor	

FR-AA-010	1	Schedule meetings with students	Academic Advisor	
FR-AA-011		Fill academic advising report for each student	Academic Advisor	
FR-AA-012		Send Academic Advising reports to Dean	Academic Advisor	
FR-AA-013	1	Receive Academic Advising Reports	Dean	

#### Assigning Instructors to Subject (FR-AI)

Instructors are assigned to subjects at the beginning of the semester. Dean of each school prepares a list of instructors together with their assigned subjects. HR office is requested to deliver a list of part timers when needed.

FR-AI-001	1	Associate each course/subject with a faculty member	Head of Department	
FR-AI-002		Request part timers, by specifying the subject, field and qualification of part timer needed.	Head of Department	If a part time instructor is required
FR-AI-003		Receive request	HR	
FR-AI-004	1	Filter Part timers based on requirements specified in Head of Department request	System	To simplify search for HR officer
FR-AI-005	1	Recommend a specific part timer, if possible	HR	
FR-AI-006	1	Send list of part timers	HR	If more than one part timer fit the requirement specified by the head of department
FR-AI-007	1	Receive list of part timers	Head of Department	
FR-AI-008	1	Associate part timers to subjects	Head of Department	
FR-AI-009	1	Notify each faculty member with their subject	System	

#### Research Requirements (FR-Rs)

Graduation research is an integral part of the curriculum. Each student must conduct a research in a topic related to their major. The Research Coordinator is responsible of managing the submission of students' proposals, monitoring the research progress and evaluation of final thesis.

FR-Rs-001	1	Schedule research proposal submission dates	Research Coordinator	
FR-Rs-002	1	Notify students of proposal submission dates	System	
FR-Rs-003	1	Upload tips and regulation of proposal writing and submission	Research Coordinator	



FR-Rs-004	1	View tips and regulation of proposal writing and submission	Student	
FR-Rs-005	1	Upload proposal	Student	
FR-Rs-006	1	Submit research proposal	Student	
FR-Rs-007	1	Group researches submitted based on specialty/major	System	
FR-Rs-008	1	Receive students proposals	Research Coordinator, Facilitator	
FR-Rs-009	1	Send proposals to Research and Curriculum Committee members	Research Coordinator	Research and Curriculum Committee is classified according to specialty. For example, Management researches are discussed by a committee specialized in management studies.
FR-Rs-010	1	Schedule a meeting for Research and Curriculum Committee members	Research Coordinator	
FR-Rs-011	1	Send the proposals that were revised/modified by the RCC to students.	Research Coordinator	
FR-Rs-012	1	Assign a supervisor for the student	Research Coordinator, Facilitator	
FR-Rs-013	1	Notify student with their supervisor	System	Supervisors assigned based on their speciality/field
FR-Rs-014	1	Notify supervisors with the students they are going to supervise.	System	
FR-Rs-015	1	Comment on the students proposal	Supervisor	
FR-Rs-016	1	Receive commented version of proposal	Student	
FR-Rs-017	1	Submit final version of proposal to research coordinator	Student	
FR-Rs-018	1	Receive final versions of proposals	Research Coordinator	
FR-Rs-019	1	Enters weekly progress of student research	Supervisor	
FR-Rs-020	1	Send monthly research progress report to Research coordinator	Supervisor	
FR-Rs-021	1	Receive monthly report	Research Coordinator	
FR-Rs-022	1	Schedule final thesis submission	Research Coordinator	

FR-Rs-023	1	Notify Students of final thesis deadline	System	
FR-Rs-024	1	Submit final thesis	Student	
FR-Rs-025	1	Receive final thesis	Research Coordinator	
FR-Rs-026	1	Customize thesis evaluation form	Research Coordinator	
FR-Rs-027	1	Assign examiners	Research Coordinator	
FR-Rs-028	1	Notify staff that they were selected as an examiner	System	
FR-Rs-029	1	Send thesis with evaluation form to examiner	Research Coordinator	
FR-Rs-030	1	Schedule research viva for each group of students	Research Coordinator	
FR-Rs-031	1	Notify students with their research viva date	System	
FR-Rs-032	1	Send evaluation forms	Examiner	
FR-Rs-033	1	Receive examiner evaluation forms	Research Coordinator	
FR-Rs-034	1	Record research marks	Research Coordinator	
FR-Rs-035	1	Schedule RCC meeting	Research Coordinator	
FR-Rs-036	1	Select the best 2 researches based on RCC meeting outcome	Research Coordinator	

#### Library Requirements(FR-L)

FR-L-001	1	Sending new books to be add	acquisition department	
FR-L-002	1	Receive new books	Librarian	
FR-L-003	1	Manage books	Librarian	Add, delete, update book
FR-L-004	1	Notify User services to confirm new added book	system	
FR-L-005	1	Confirm/ unconfirmed new added book	User services	In case of unconfirmed error message must send to librarian
FR-L-006	1	Notify subject specialist to approve new added book	system	
FR-L-007	1	Approve/decline new added book	subject specialist	In case of decline error message must send to librarian
FR-L-008	1	Notify student when new book is available.	System	Students that study subject related to this book

#### Transportation requirements (FR-Tr)

FR-Tr-001	1	Enter student's admission information (name, age, gender, address, city, state, region, street, block, etc.)	Registerer.	
FR-Tr-002	1	Enter No. of Buses available, bus capacity along with which city the bus will be.	Registerer.	
FR-Tr-003	1	From above entered information the system should be able to generate reports to calculate based on buss capacity and no. of students how many buses it needs per region.	System.	
FR-Tr-004	1	Include a GPS in the bus supervisor's phone to be able to track where the buss is at any given time.	System.	

#### **Organizing Field Trip Requirements(FR-F)**

For the purpose of engaging students in guided participation in extension and community development field work. Each student is required to participate in a trip to one of the rural extension areas.

FR-F-001	1	Select list of staff available for supervision	School Coordinator	
FR-F-002	1	Select 3rd level students (list)	School Coordinator	
FR-F-003	1	Send list to REED field trip coordinator	School Coordinator	
FR-F-004	1	Receive staff and students list	REED field trip coordinator	
FR-F-005	1	Classify Students to groups	REED field trip coordinator	
FR-F-006	1	Specify different localities that students will be sent to.	REED field trip coordinator	
FR-F-007	1	Associate each group of students to a locality	REED field trip coordinator	
FR-F-008	1	Submit	REED field trip coordinator	
FR-F-009	1	View students groups and associated localities	School Coordinator	After REED field trip coordinator submits the associations
FR-F-010	1	Schedule the field trip	REED field trip coordinator	
FR-F-011	1	notify students and staffs with their trainings schedule (field trip) and localities settings	System	

FR-F-012	1	Request to change group	Student	
FR-F-013	1	Approve Request	School Coordinator	
FR-F-014	1	Request each staff (filed trip supervisor) to send the proposed training materials that will be learned during field trip	School Coordinator	
FR-F-015	1	Receive request	Field trip supervisor	
FR-F-016	1	Upload and send materials	Field trip supervisor	
FR-F-017	1	If some materials are not available, notify the School Coordinator	Field trip supervisor	
FR-F-018	1	Receive Materials or notification of unavailable materials	School Coordinator	
FR-F-019	1	Approve Materials	School Coordinator	
FR-F-020	1	Enter Field Trip marks for each student	Field Trip Supervisor	
FR-F-021	1	Import field trip report for each student	Field Trip Supervisor	
FR-F-022	1	View Student Reports	REED field trip coordinator/School Coordinator	
FR-F-023	1	Approve Students Report	REED field trip coordinator/School Coordinator	
FR-F-024	1	Add field trip report to student record	System	

## Integration Requirements

Integration Requirements (IR)				
Hardware Integration Requirements				
IR 001	1	System should integrate with id card printer		
IR 002	1	System should integrate with certificate printer		
IR 003	1	System should integrate with student card attendance device		
IR 004	1	System should integrate with employee attendance device		
Software integration				

IR 005	1	System should integrate with d-space, kuha library system		
IR 006	1	System should integrate with finance (oracle system )		
IR 007	1	System should integrate with Model, Blackboard learning management system		

## Reporting Requirements

Req#	Priority	Description	Impacted Stakeholders
Reporting Requirements(RR)			
<b>Admission</b>			
RR 001	1	There should be a ability to create a report that contains all students who applied for the registration, filtered by student level or degree	Admission
RR 002	1	There should be a ability to create a report that contains all accepted new students, filtered by student level or degree	Admission, registrar
RR 003	1	A report with applicant admission status and information like index, id-card status, financial status and the faculty or department he is applying to.	Student
RR 004	1	A report with the names of the accepted students along with their finance status (paid or unpaid), filtered by student level or degree, filtered by student level or degree	finance
RR 005	1	A report with all the students who have created an id card, filtered by student level or degree	Registrar
RR 006	1	a report with all the students who applied for diploma, master or PHD who has passed English exam	Admission
<b>Certification</b>			
RR 007	1	a report with all the list of certificate available with their fees	Registrar, Certification department

RR 008	1	a list of all students who requested a certificate with the certificate type and the status of it (requested, prepared, delivered, unconfirmed)	Registrar, Certification department
RR 009	1	a report with the certificates the student is applying to with its status as above and its fees along with the payment status.	Student
RR 010	1	a report with all the students who have requested a certificate with the certificate fees and the payment status	finance
<b>Calendar</b>			
RR 011	1	a report with all the calendar year details like: academic year, semesters and their durations, midterms, finals, special dates and accessions, holidays, vacations, events, and the ability to filter this report by semester, weeks and full year	All
RR 012	1	a report with all events and holidays, filtered by (year, semester or term)	Registrar
<b>Time Table</b>			
RR 012	1	a report with all buildings and their rooms along with each room specifications (room capacity, equipment available, etc.)	Classroom management, academic affairs
RR 013	1	a report with all rooms and the lectures associated with each room along with the lecture status (taken or not and the reason for not taking the lecture.)	Classroom management, academic affairs , registrar
RR 014	1	a report with all the courses and subjects and the subject load along with teachers associated to each subject	Registrar
<b>Transportation</b>			
RR 016	1	a report with all the cities and number of buses available along with number of students in each bus	Registrar
RR 017	1	a report with the total no of buses available and the number of buses needed, to be filtered by city so we be able to see the number of buses available at each city and to predict the exact number needed	Registrar, system

RR 018	1	a report with all the buses and each bus fees also number of supervisors associated with each bus and their salary, so the finance can know exactly how much each bus costs and the total cost of all buses	finance
<b>Examination</b>			
RR 019	1	a report with all the exams and their schedule associated with exam subject and teacher , the report should be filtered by ( year, semester, subject, etc.)	Registrar, academic affairs, college dean
RR 020	1	a report with all uploaded exams and their status (approved or not) , the report should be filtered by ( year, semester, subject, etc.)	Teacher, examination officer
RR 021	1	a report with all special cases students, their batch and academic year and the student examination status of the case ( not allowed to sit for exam, suspended, etc.)	Teacher, examination officer, Registrar
<b>Student Performance</b>			
RR 022	1	a report with each student and his performance( all his marks, attendance, course work, etc.) , filtered by (subject, semester or term, year, etc.)	Teacher, Registrar
<b>Result</b>			
RR 023	1	a report with all passed students filtered by year and batch	Registrar, academic affairs, college dean
RR 024	1	a report with all repeat students filtered by year and batch	Registrar, academic affairs, college dean
RR 025	1	a report with all external students filtered by year and batch	Registrar, academic affairs, college dean
RR 026	1	a report with each student and his marks, filter by subject, course, semester or term and year	Registrar, academic affairs, college dean
<b>Performance Management</b>			

RR 027	1	A report with all staff under reviews and their reviews, ratings and assessments, filtered by staff member name	Head of departments, administrative staff
RR 028	1	A list of all questionnaires that has been submitted	Head of departments, administrative staff
RR 029	1	A list of all staff members who needs training	Head of departments, administrative staff, training unit
<b>Recruitment</b>			
RR 030	1	A list of all vacancies available filtered by departments	HR, dean of college, academic affairs
RR 031	1	A list of applicant who applied to each job and the applicant status(accepted, rejected), filtered by: faculty, department, job name, applicant status	HR, dean of college, academic affairs
<b>Leave</b>			
RR 033	1	A list of all leaves types and groups and employees associated with it	HR
RR 034	1	A list of all employees who has applied for a leave associated with the status of the leave (accepted, rejected) and number of leaves he should have and the exact number of leaves he took	HR, dean of college, academic affairs
<b>Assigning Academic advisors</b>			
RR 035	1	a list of all academic advisors available for each subject, filtered by: faculty, department, year	HR, dean of college, academic affairs
RR 036	1	a list of each academic advisor associated with his students	HR, dean of college, academic affairs
RR 037	1	a list of advised subjects for each student	HR, dean of college, academic affairs



Assigning instructors to subjects			
RR 038	1	a list of all subjects and subject load associated with its instructor, filtered by: year, faculty, department, batch	dean, registrar
RR 039	1	a list of all instructors with their status (part timer, teacher, prof, etc.), filtered by: year, faculty, department, batch	HR, dean of college, academic affairs
RR 040	1	a list of all subjects an instructor teaches including year department and batch	Instructor
Library			
RR 041	1	a list of all available materials filter by material type(book, journal, etc.), subject, year, batch	Librarian
RR 042	1	a list of all books and their status (borrowed, available, etc.)	Librarian
Field trips			
RR 043	1	a list of all trips associated with its specific department and the supervision staff member associated with the materials needed for this trip if any, filtered by year	school coordinator
RR 044	1	a list of each trip group associated with students who will take this trip and the supervision staff member, filtered by year	school coordinator
RR 045	1	a list of all trips a students has been to	school coordinator, students

## Business Rules Catalog

BR ID	Business Rule Title	Business Rule Description	Type	References
BR01	College/Faculty information	All information about Faculty appear just for employee, teacher and student related to this faculty and administrators	constraint	
BR03		Avery Faculty have different roles of registrar, Finance	constraint	

BR04	Check form number for admission	Any student doesn't have the form number in EMS can't enter the system	constraint	
BR05	student's fees	student fees can update only by the registrar when confirming the change in student status example: repeat year, the death of the father	constraint	
BR06	Notification	All send and receive process, the system must send notification automatically for sender and receiver	fact	
BR07	Extract Certificates condition	When Select certification type to extract it the type of undergraduate certificate appear just when student in graduate status	<b>constraint</b>	
BR08	Extract Certificates flow	Extract Certificates process go through certifications department of type of certificate is undergraduate or graduate certificate just another type extract from registrar only.	<b>constraint</b>	
BR09	Assessment rules	Customizable Assessment rules for supplement rule, repeat rules, and termination rules based on number of subject pass or other rule	<b>constraint</b>	

## User Roles and Privileges

In addition to the existing roles in fedena (Teacher, parent, student, employee), the administrator should be able to create new custom roles with custom privileges (different privileges for each role) to be assigned for users/employees (Example: HR recruiter, HR Representative for different colleges, finance accountant ... etc.). Therefore a new field with drop down list should be added to the user profile includes those new custom roles.

## Glossary of terms

Term	Definition
Institute	An organization created for a specific purpose, usually for research, that may be located on a college or university's campus.
University	A postsecondary institution that typically offers both undergraduate and graduate degree programs.
College	A postsecondary institution that typically provides only an undergraduate education, but in some cases, also graduate degrees. Separately, "college" can refer to an academic division of a university, such as College of Business.
School	Any educational institution, including those that provide elementary, secondary and postsecondary education.
Years	First, Second..., Fifth Year – Per Academic Year. <u>Example:</u> First Year 2012-2013 The second Year 2012-2013 ... The fifth Year 2012-2013
Semesters	Periods of study that divide the academic year into two equal segments of approximately 15 to 18 weeks each. Some schools also offer a shorter summer semester, beyond the traditional academic year.
Class/Grade	<b>K-12:</b> Year of study
Admission officer	a person who works for an institution of higher education to recruit and communicate with new students to complete admission process in the institute
Form number	all new students have a unique number from the ministry of higher education called form number accepted done it by it
Registrar	The college or university official who is responsible for registering students and keeping their academic records, such as transcripts. Registrar also responsible for extract certificate for students.
Certifications department	is department or committee responsible for approval and signing the graduate and undergraduate certificate.
Teachers' committee	is a group of selected teachers whom are responsible for validating certificates, exams results, and Subject organization.
Academic Calendar	is a description of the timetable of each Study days ,exams and holiday within the institute, college, school, and university.
classroom management	is a responsible staff member within the college with permission to organize each classroom (Id, capacity, classroom assets).
students' affair	is a department responsible for managing students' activities such as (field trips, competitions, financial aids...etc.

Academic affair	is a department responsible for managing examination process, subjects, and batches.
examination officer	is a person responsible for managing examination process (exams' timetable, exams' results submitting process, and exams security process).
exam's authorized personnel	is a person responsible for receiving subjects marks, filter results by marks, and updating results based on marking groups.
Academic advisor	is a person from the faculty staff who is responsible of certain students' list.