

Business Requirement Document

Educational Academy

Prepared by: Abdelrahman Ahmed Elsamahy

Karim osama sharshira

ITI Brd Project

Version: V0.1

Date: **8/29/2025**

Document Change Record

| Version Number | Date | Description |
|----------------|------------|-------------------------|
| 0.1 | 02/12/2009 | First draft document |
| 0.2 | 13/12/2009 | Functional Requirements |
| 1.0 | 15/12/2009 | Initial Document |

TABLE OF CONTENTS

| | | |
|------|---|----|
| 1 | Introduction..... | 3 |
| 1.1. | Situation Statement | 3 |
| 1.2. | referenced documents | 4 |
| 1.3. | Scope..... | 6 |
| 2 | business requirements | 8 |
| 3 | nonfunctional requirements | 10 |
| 4 | Functional Requirements | 11 |
| 4.1. | Requirement Category 1 | 11 |
| 4.2. | Requirement Category 2 | 13 |
| 4.3. | Reporting and Analysis Requirements..... | 14 |
| 4.4. | Alerting and Collaboration Requirements | 16 |
| 4.5. | Security Requirements | 17 |
| | <Attach the Roles-Permission Matrix>..... | 17 |
| 4.6. | Integration Requirements..... | 18 |
| 5 | Transition Requirements..... | 18 |
| 6 | Product information | 19 |
| 6.1. | Business Rules | 19 |
| 6.2. | Constraints | 19 |
| 6.3. | Assumptions..... | 19 |
| 6.4. | Issues..... | 20 |
| 6.5. | Risks..... | 20 |
| 7 | Data Requirements..... | 20 |

LIST OF TABLES

| | |
|--|----|
| Table 1: Business Requirements..... | 8 |
| Table 2: Nonfunctional Requirements | 10 |
| Table 3 : Requirement category 1 | 11 |
| Table 4 : requirement category 2 | 13 |
| Table 5 : Reporting And Analysis Requirements | 14 |
| Table 6 : Alerting And Collaboration Requirements..... | 16 |
| Table 7 : Security Requirements..... | 17 |
| Table 8 : Integration Requirements..... | 18 |

LIST OF FIGURES

NO TABLE OF FIGURES ENTRIES FOUND.

1 INTRODUCTION

This document defines the objectives of the Academy to implement a Learning Management & Engagement System to provide students with easy access to courses, enable seamless registration and participation in academy activities, and support administrators, instructors, and marketing teams in managing content, events, and promotions.

1.1. SITUATION STATEMENT

Low Traffic and Engagement

Root Cause(s):

- Static Content: No CMS to allow frequent content updates
- Poor SEO: Lack of dynamic content impacts search engine visibility
- Lack of Marketing Tools: No way to publish live streams or edit content easily

New Capabilities: Dynamic Content Management / SEO / Digital Marketing Tools

To-Be Features: CMS, Dynamic Course Catalog, Live Streaming

Complex Registration

Root Cause(s):

- The registration interface is not user-friendly or smooth
- Registration form is frustrating for applicants.
- Lack of Mobile-Friendliness: The website is likely not usable or designed for mobile devices.

New Capabilities: User-Centric Design / Simplified Registration Workflow / Mobile Responsiveness

To-Be Features: Avoid Multi-step / Design New UI UX Design / Responsive website design

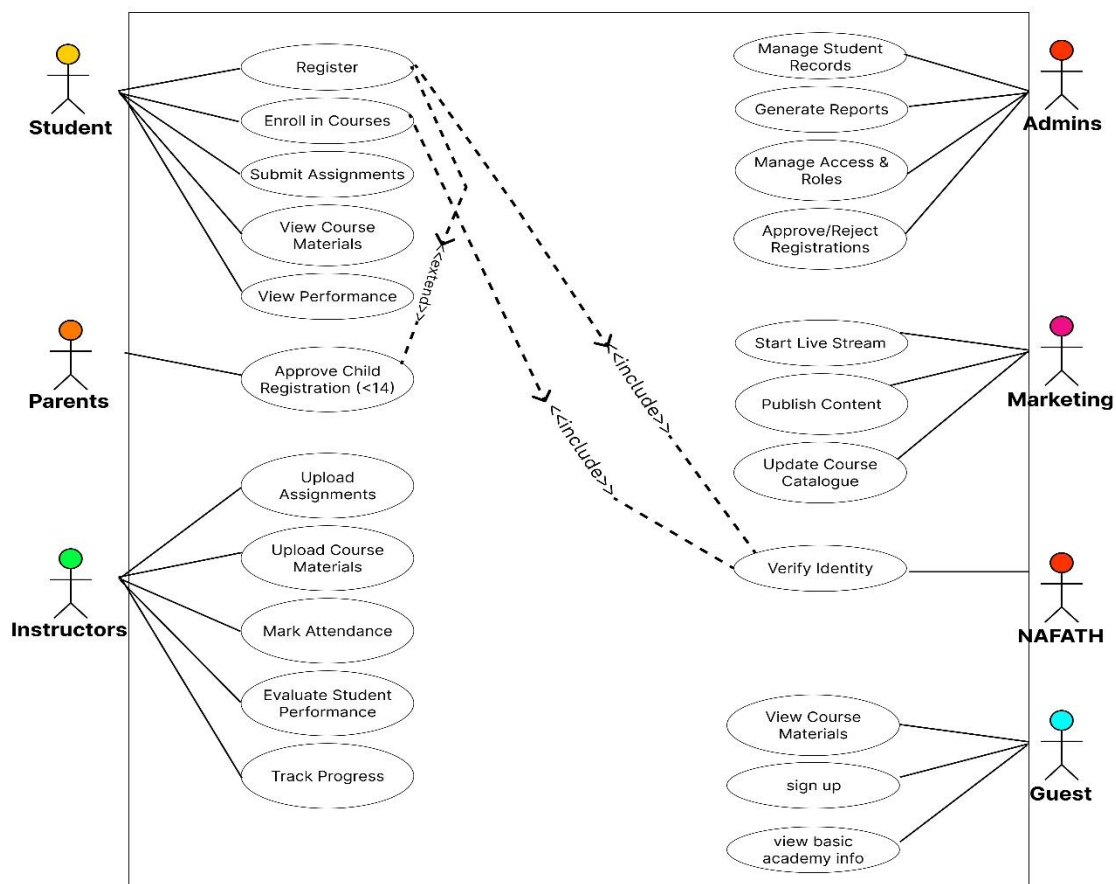
This document addresses the current situation statement and outlines the key capabilities of the proposed solution that enables the change and delivers the desired value to the business stakeholders.

1.2. REFERENCED DOCUMENTS

The BRD references and is written with compliance to the following documents:

- Glossary
- Stakeholder Register
- Capability Table
- Product Roadmap

Usecase Diagram



Stakeholder Register

| Stakeholder Group | Stakeholder | Name | Role | Impact | Influence | Stakeholder Attributes/ Comments |
|--------------------------------|-------------------|--------------------------------|--------------------------------|--------|-----------|---|
| Affected External Stakeholders | Students | Current Students | | High | High | Directly affected by registration. Need user-friendly experience. NAFATH verification. bilingual support. |
| | | | | | | |
| | Parents | Parents of applicants under 14 | | High | Low | Required for parental approval |
| | | | | | | |
| | NAFATH | Government | | Low | Low | |
| Organization or Enterprise | Sponsors | Academy Board of Directors | | High | High | Responsible for funding |
| | IT/Operations | IT Manager & Support Team | | Low | High | Maintain platform security |
| | SME | Consultation Team | | | | |
| | Marketing Team | Marketing Manager | | Low | High | Manage course catalogue, featured courses |
| Affected Organizational Unit | Help Desk | | Support Staff | High | Low | |
| | Marketing Team | Content Editors | | High | High | Manage course catalogue, featured courses |
| | Admissions Office | Morab Bilner | Student Affairs Team | High | High | Manage applications, approvals, follow-up with |
| | Teachers | Instructors | | High | High | |
| Solution Delivery | Product Manager | | Academy Project Manager | High | High | aligning business goals with digital solution. |
| | BA Professional | | Business Analyst (Internal/Ext | High | High | Captures requirements |

Capability Table

| Problem | Root Cause(s) | New Capabilities | To-Be Features to Fill Gaps | Any Stakeholder Comments |
|--------------------------------------|--|----------------------------------|--|--|
| Low Traffic and Engagement | Static Content: No CMS to allow frequent content updates | Dynamic Content Management | A CMS with a user-friendly interface for the marketing team. | Marketing Team: "We need full control over the website to publish new content" |
| | | Search Engine Optimization | Dynamic course catalog | |
| | Poor SEO: Lack of dynamic content impacts search engine visibility | Digital Marketing Tools | Live streaming for academy events. | |
| | Lack of Marketing Tools: No way to publish live streams or edit content easily | | | |
| Complex Registration | The registration interface is not user-friendly or smooth registration form is frustrating for applicants. | User-Centric Design | Avoid Multi-step. | Applicants prefer to register manually because the online process is so bad |
| | | Simplified Registration Workflow | responsive website design | |
| | Lack of Mobile-Friendliness: The website is likely not usable or designed for mobile devices. | Mobile Responsiveness | Design New UI UX Design | |
| | | | | |
| Manual & Inefficient Admin Workflows | Lack of SIS: No Student Information System to manage applicant approval | Automated Approval Workflows | admin portal with dashboards for managing and tracking applicant approvals. | |
| | Manual Data Entry: Admins manually process applications and approvals. | Student Information System (SIS) | Automated email notifications for workflow stages | |
| | No defined roles for managing the workflow | Role-Based Access Control | Enable secure role-based access control to ensure admins and staff only receive the permissions relevant to their roles. | |

| | | | | |
|--------------------------------------|---|---|--|---|
| Poor Student & Instructor Experience | No Learning Platform: Students cannot access course materials or submit assignments | Learning Management System | LMS with a student portal for course materials, assignments, and grades | |
| | Instructors have no digital tools to track attendance or performance | Mobile Accessibility | instructor portal to upload content, create assignments, and track student progress and attendance | |
| | No mobile app for learning activities. | Access Points for Students & Instructors | mobile app for the LMS access | We need a platform to access our course materials and assignments We need a simple way to manage our courses and |
| Branding Consistency | The current website do not reflect a cohesive brand identity. | Apply new UI theme with the branding colors | Apply branding guidelines to all user interfaces | Our brand image is crucial for our reputation. All user touchpoints must look and feel like they belong to the same academy |
| | Website not attractive | | | |
| | Current UI is not user-friendly or easy | | | language |

Product Roadmap

| | Q1 | Q2 | Q3 | |
|--|--|---|--|--|
| Release | MVP | | | |
| Goal: "What is the goal?" | Increase the number of student registrations | Improve the learning experience | Increase the profit | |
| Capabilities: "What product capabilities or features need to be included to achieve the goal?" | Develop a well-structured homepage that reflects the brand and courses offered - Enhance the user experience of registration (mobile-first, bilingual, custom form) - Enhance the user experience of exploring the course catalogue (filter, search, featured courses) - Support NAFATH ID verification & -parental approval - user profile | Students: access materials, assignments, grades, attendance - Instructors: upload content, track performance, manage assignments - Mobile app release - Attendance tracking (QR code / digital check-in) - Export report support for admins - Single Sign on | Implement online payment support (for future paid courses) | |
| Metrics: "How to measure success?" "How to ensure the goal will be reached?" | - Increase in the number of completed registrations online - Increase in the number of NAFATH-verified applicants | Increase in assignment submissions and attendance records | Increase in the number of active paid subscriptions | |

1.3. SCOPE


This section covers the capabilities that builds the solution.

The business analysis breaks down the solution into the following main software components or capabilities:

Core capabilities

Course Registration & Enrollment – Enables applicants (and their guardians, if under 14) to register for courses/events online.

User Management – Manages applicants, students, parents/guardians, instructors, and admin accounts with role-based access control.

 **Learning Management System (LMS)** – Provides students with access to course materials, assignments, and grades.

Provides instructors with tools to upload content, manage assignments, and give feedback.

Supporting Capabilities

Content Management System: Allows Marketing team and instructors to dynamically create, update, and publish course content, event details, and announcements.

Admin portal to manage course settings, track registrations, and check approvals/rejections for applicants under 14.

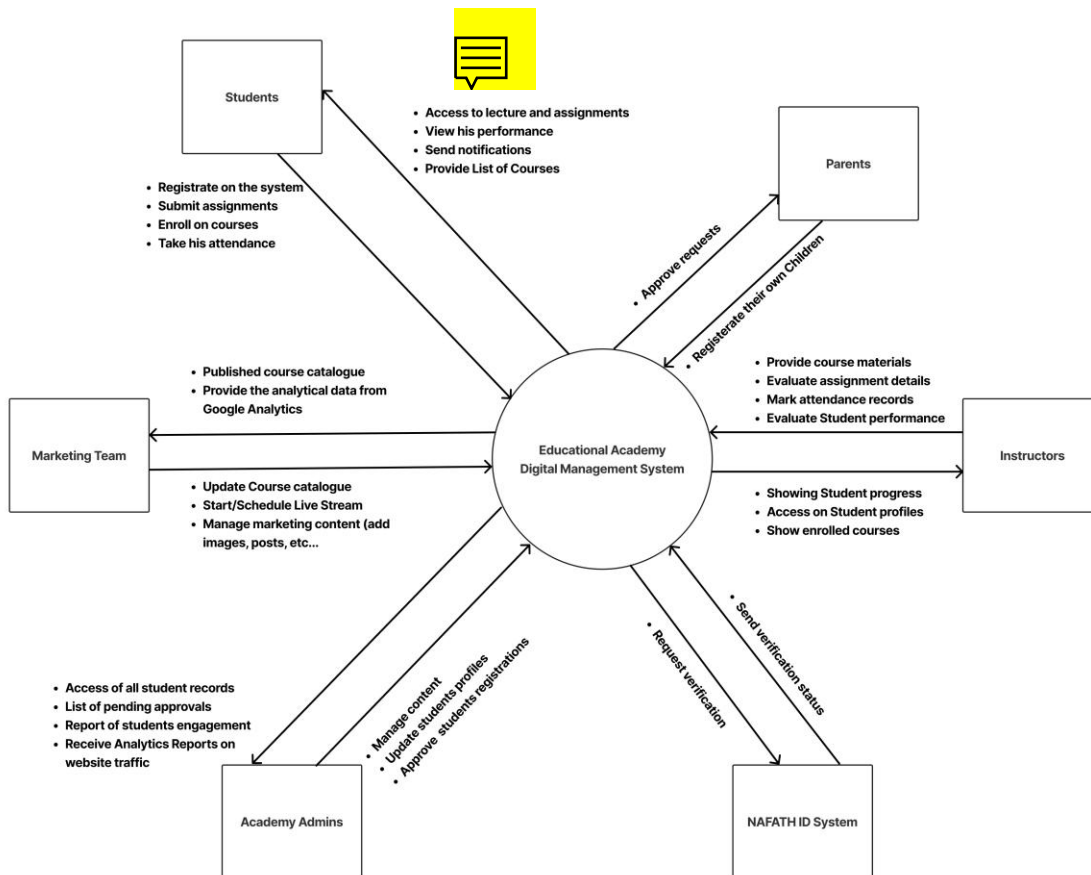
Generic Capabilities

SEO Friendly: Ensures the website is optimized for search engines to improve course visibility and attract more applicants.

Analytics & Reporting: Generates insights on course popularity, enrollment trends, and user activity to support business decision-making.

Mobile Responsiveness & Accessibility Ensures seamless access across devices (desktop, tablet, mobile).

Provides accessibility for users with disabilities.



2 BUSINESS REQUIREMENTS

This section covers the high-level business goals and objectives that provide the rationale for building the solution.

TABLE 1: BUSINESS REQUIREMENTS

| ID | Requirement | Description |
|------|----------------------------|---|
| BR.1 | Dynamic Content Management | Allows Admins/Marketing team to create, update, and manage content |
| BR.2 | Engagement & Events | Live streaming of academy events. Tools for creating and tracking marketing campaigns. |

| ID | Requirement | Description |
|------|--|---|
| BR.3 | Simplified Registration Workflow | One-click registration option. Auto-save registration forms for students. |
| BR.4 | Automated Approval Workflows | |
| BR.5 | Student Information System (SIS) | Centralized student records. Progress and grade tracking. Attendance and performance reporting. |
| BR.6 | Role-Based Access Control (RBAC) | |
| BR.7 | Learning Management System (LMS) | Student portal for assignments and materials. Instructor portal for uploading content and grading. |
| BR.8 | Mobile Accessibility | |
| BR.9 | Access Points for Students & Instructors | |

3 NONFUNCTIONAL REQUIREMENTS

TABLE 2: NONFUNCTIONAL REQUIREMENTS

| ID | Requirement | Description | Priority |
|----|---|---|----------|
| | User-Centric Design | Modern, responsive website design. Simplified registration process Fresh UI/UX design for better user experience. | High |
| | Mobile Responsiveness | Mobile and tablet-friendly layouts. Optimized speed and performance on all devices. | High |
| | Availability | The system shall be available 24/7, except for scheduled maintenance (announced 48h prior). | |
| | Search Engine Optimization | | Low |
| | Branded User Experience | | High |
| | Usability | The system shall provide a mobile-friendly UI compatible with iOS and Android. | High |
| | Scalability | The system shall be capable of scaling up to 5,000 concurrent users without major redesign. | High |
| | Performance/response time (performance engineering) | The system shall respond to user actions within < 3 seconds under normal load. | High |

4 FUNCTIONAL REQUIREMENTS

The core functional requirements of the solution are categorized and structured as shown in the sub sections.

Each requirement listed in section 4.0 will be evaluated on a scale of 1-3 as described below:

Rating System:

Priority: 1 = Must Have, 2 = Very Important, 3 = Nice to Have

Dynamic Content Management

- The system shall allow content creators to add, edit, and delete course descriptions dynamically. (Priority 1)
- The system shall provide a CMS (Content Management System) for managing web pages and media assets. (Priority 1)

Engagement & Events

- The system shall allow administrators/instructors to schedule events (workshops, webinars, live sessions). (Priority 1)
- The system shall enable students to register and receive reminders for events. (Priority 1)
- The system shall provide live streaming and interactive tools (chat, polls, Q&A). (Priority 2)
- The system shall allow tracking of attendance and feedback collection after events. (Priority 2)

<Attach to each requirement category models that represents them such as use case diagram, process flow>

<For a more detailed BRD, document the use case of each requirement>

4.1. REQUIREMENT CATEGORY 1

TABLE 3 : REQUIREMENT CATEGORY 1 DYNAMIC CONTENT MANAGEMENT

| ID | Requirement | Description | Business Requirement | Priority |
|------|---|---|-------------------------|----------|
| RG.1 | The system shall allow content creators to add, edit, and delete courses. | Admin can manage the course catalog dynamically in real-time. | Keep courses up to date | 1 |

| ID | Requirement | Description | Business Requirement | Priority |
|------|--|---|---|----------|
| RG.2 | The system shall provide a CMS for managing web pages and media assets. | Admin can upload/edit content (pages, images, videos, documents). | Ensure updated and accurate content delivery. | 1 |
| RG.3 | The system shall allow students to view updated course listings instantly. | Course catalog refreshes in real-time once changes are published by admins. | Guarantee students always have access to current courses. | 1 |

4.2. REQUIREMENT CATEGORY 2

TABLE 4 : REQUIREMENT CATEGORY 2 LEARNING MANAGEMENT SYSTEM (LMS)

| ID | Requirement | Description | Priority |
|-------|---|---|----------|
| LMS.1 | The system shall provide a student portal for accessing course materials. | Students can view and download lectures, slides, and resources. | 1 |
| LMS.2 | The system shall allow students to submit assignments online. | Assignment upload with file validation and due date tracking. | 1 |
| LMS.3 | The system shall provide instructors with tools to upload course content. | Instructors can add lectures, assignments, and resources. | 1 |
| LMS.4 | The system shall allow instructors to grade assignments and provide feedback. | Instructors can evaluate submissions and leave feedback for students. | 1 |
| LMS.5 | The system shall provide notifications for assignments and deadlines. | Push notifications/email reminders for due dates or new materials. | 1 |
| LMS.6 | The system shall allow students to track progress in their courses. | Students can view completion rates, grades, and progress reports. | 1 |

4.3. REQUIREMENT CATEGORY 2

TABLE 5 : REQUIREMENT CATEGORY 3 REGISTRATION & ENROLLMENT

| ID | Requirement | Description | Priority |
|------|---|---|----------|
| RE.1 | The system shall allow applicants to register online with personal details. | Applicants create an account by filling required fields and verifying info. | 1 |
| RE.2 | The system shall enable guardians to register on behalf of applicants <14. | Parents/guardians can create and manage accounts for minors. | 1 |
| RE.3 | The system shall allow students to browse available courses/events. | Dynamic catalog of available courses with filters/search. | 1 |
| RE.4 | The system shall allow students/guardians to enroll in courses/events. | One-click enrollment with confirmation messages. | 1 |

4.4. REPORTING AND ANALYSIS REQUIREMENTS

TABLE 5 : REPORTING AND ANALYSIS REQUIREMENTS

| ID | Requirement | Description | Priority |
|------|--|--|----------|
| RA.1 | Provide Robust, Flexible, Intuitive Reporting Interface | Solution shall provide enterprise class reporting capabilities for both tabular and graphical reporting against any desired data. | 1 |
| RA.2 | Provide extensive out of the box Reports | Solution shall provide comprehensive, standard reports showing SLA compliance across customers or for a given customer by service line, location, and any user defined dimensions. | 2 |
| RA.3 | Provide flexible, role-based dashboard capability to view any combination of reports/views applicable to each role in the organization. | The key interface for reviewing the state of a single Objective, Single SLA or multiple groups of objectives and SLAs is the dashboard. Dashboard shall support user defined views and the ability to refresh in near real time as new events come in – at all time presenting current and forecasted performance. | 2 |
| RA.4 | Provide sophisticated report filtering and sorting by types of Customers / Client's, location, severity, associated impact, and urgency. | Solution shall provide total control and configuration options over reports by relevant attributes. | 2 |
| RA.5 | Solution provides standard queries and reports. | Solution shall receive, load and use kits of pre-made standard SLAs, templates and reports to expedite usage and adhere to industry best practices. | 2 |
| RA.6 | Solution provides customized queries and reports. | Solution shall allow users to create new reports and queries on the fly. | 1 |
| RA.7 | Real time graphical report | Solution shall provide real-time graphical visualization of Key Performance Indicators and SLA performance. | 2 |
| RA.8 | Solution provides filtering and consolidation of query/report data to a summary level. | Solution shall provide an interface for filtering and consolidating report results to provide sophisticated control over report results and appearance. | 2 |
| RA.9 | Solution supports user initiated exports of information from the system to common desktop application formats. | Users of the solution can export contract/SLA definitions, calculation documentation, and report results. | 2 |

| ID | Requirement | Description | Priority |
|-------|---|--|----------|
| RA.10 | Solution provides views of current status, historical status, and changes in status. | The solution reports shall show results on historical performance as well as changes in statuses. | 1 |
| RA.11 | Solution provides facilities for automated generation and delivery of reports | Solution shall allow defining scheduled delivery recipients and schedules and automates the delivery of reports in a "push" manner. | 1 |
| RA.12 | Solution supports root cause analysis. | The solution, through the analysis and guiding steps in provides shall help determining the root-cause of problems. | 3 |
| RA.13 | Reports can be maintained for at least 12 months | Solution shall support maintaining generated report results for at least 12 months, with the ability to extend this period of time. | 1 |
| RA.14 | Provide the ability to view and create reports on calculations and results. | Solution shall allow generating reports not only on the monthly performance results of an SLA but also on the intermediate (daily, weekly and ad-hoc) performance results. | 1 |
| RA.15 | Annotation and note capabilities as well as over all administration of comments and annotations | Solution shall allow users with relevant security permissions to add their own comments and annotations to reports and review other user's comment. | 1 |
| RA.16 | Provide historical trending analysis for SLA and contractual Obligation compliance | Solution shall allow users to review past performance and use it when generating trend calculations. | 1 |
| RA.17 | Ability to send reports via email to any system user. | Users shall be allowed to easily send any tabular or graphical report to other users from within the application. Emails must include exact graphical snapshots of the report results. | 1 |
| RA.18 | Automatically deliver reports to Customers / Client's via email. | Solution shall support scheduled delivery of reports, including approval process before report distribution. | 1 |
| RA.19 | Ability to export report results & drill downs to Word or Excel | Solution shall provide intuitive interface for exporting any report to a MS Word or Excel document with the option of including related "drill down" reports. | 1 |
| RA.20 | Real time reporting | Solution shall provide real time dashboard reporting | 2 |

4.5. ALERTING AND COLLABORATION REQUIREMENTS

TABLE 6 : ALERTING AND COLLABORATION REQUIREMENTS

| ID | Requirement | Description | Priority |
|-----------|---|---|-----------------|
| AC.1 | Provide notification on SLA and contractual obligation violations via e-mail, or SMS | Solution shall provide a comprehensive alerting mechanism to send notifications to individuals in advance of any compliance breach. | 1 |
| AC.2 | Ability to suspend monitoring and alerting during maintenance windows and other business constraints as defined by contracts and internal definitions | Solution shall be able to take into account maintenance windows to not alert in vain or generate wrong results. | 1 |
| AC.3 | Provide the ability to interface with the problem management software for problem management on the violations/outages | Solution shall read / write results, if permission is set accordingly, with the problem management software. | 3 |

4.6. USER MANAGEMENT REQUIREMENTS

TABLE 7 : SECURITY REQUIREMENTS

| ID | Requirement | Description | Priority |
|------|---|---|----------|
| SR.1 | Solution provides robust data privacy and security | Solutions shall manage the users' privileges to support industry accepted security standards ensuring that the integrity and confidentiality of data is guaranteed | 1 |
| SR.2 | Solution supports multiple customers with the appropriate level of security and data confidentiality | The solution shall provide the capability to integrate with multiple Active Directories to authenticate the users and extract their info | 1 |
| SR.3 | When access provided to an external party or customer, there is an adequate security mechanism to ensure that they do not access data and/or environments other than their own. | Solution shall support security model in such that data that belongs to one external party can not be viewed under any circumstances by another one that was not explicitly granted access to it. | 1 |
| SR.4 | Role based access control model | The application shall allow configuration of security parameters based on roles | 1 |
| SR.5 | Personnel profile | The solution shall allow the ability to record security information in an individual profile | 1 |
| SR.5 | Personal Information | The solution shall allow the ability to store personal information such as home address, multiple home number under secure section | 2 |

<ATTACH THE ROLES-PERMISSION MATRIX>

4.7. INTEGRATION REQUIREMENTS

TABLE 8 : INTEGRATION REQUIREMENTS

| ID | Requirement | Description | Priority |
|------|--|---|--------------|
| IR.1 | The system shall integrate with Nafath for identity verification. | Applicants verify their identity using national ID/authentication via Nafath. | 1 |
| | The system shall integrate with the Student Information System (SIS). | Student enrollment, grades, and attendance synced with SIS. | 1 |
| | The system shall integrate with the Learning Management System (LMS). | Course materials, assignments, and progress tracking automatically linked to the LMS. | 1 |
| | The system shall integrate with SEO tools & Google Analytics. | Enable SEO monitoring and visibility tracking for courses/events. | 3 |
| | The system shall integrate with Payment Gateways.(Future) | Enable credit card, bank transfer, and digital wallet payments for course enrollment. | 3 |
| | | | |

5 TRANSITION REQUIREMENTS

Data Migration

- The system shall migrate existing student data from the legacy system to the new SIS.
- The system shall ensure that course enrollment records from the old database are imported without data loss.

User Training

- Provide training sessions for admins, instructors, and staff on how to use the new system.
- Provide online tutorials for students on how to register and access the LMS.

System Deployment

- The solution shall be deployed in a test/staging environment before go-live.
- The system shall provide rollback procedures in case of deployment failure.

Cutover Strategy

- Define a plan for switching from the old registration system to the new one (e.g., freeze old system at midnight, go-live next morning).

Temporary Coexistence

- During the transition phase, both old and new systems may run in parallel for verification.

Change Management

- Communication plan to inform students and staff about new workflows.
- Support team availability during the first 3 months after go-live.

6 PRODUCT INFORMATION

6.1. BUSINESS RULES

- Students under 14 must have parent/guardian approval before course enrollment.
- Each course must have a maximum enrollment cap set by the instructor/admin.
- Payments must be confirmed before enrollment is finalized.(Future)
- Only verified instructors can publish course materials.

6.2. CONSTRAINTS

- The system must comply with Saudi education data regulations
- Nafhath ID verification integration is mandatory.
- The platform must support both Arabic and English (bilingual requirement).
- The solution must be mobile responsive and accessible (WCAG 2.1 compliance).
- Hosting must be on a secure cloud (AWS/Azure).

6.3. ASSUMPTIONS

- Users (students, instructors, parents) will have stable internet access.
- Admin staff will be available for approval workflows.
- Nafhath API will remain available and provide stable integration.
- Students will use their mobile devices as the primary access point.
- The marketing team will provide initial course/event content.

6.4. ISSUES

- Legacy student data may not be clean/structured for migration.
- Possible delays in receiving API documentation from Nafhath.
- Limited staff availability for UAT (User Acceptance Testing).
- Ambiguity on whether guest users can preview course materials before registration.

6.5. RISKS

- **Technical Risk:** Nafhath integration may fail or have downtime.
- **Adoption Risk:** Students/instructors may resist shifting to the new platform.
- **Data Risk:** Incorrect or incomplete data migration may cause loss of student history.
- **Timeline Risk:** Approval and compliance checks may cause project delays.
- **Security Risk:** Unauthorized access attempts if RBAC is not implemented properly.

7 DATA REQUIREMENTS

<Attach the ERD>