COUNTRY: KENYA

PROJECT: KENYA DIGITAL ECONOMY ACCELERATION PROJECT (KDEAP)

IMPLEMENTING AGENCY: Information and Communications Technology Authority (ICTA)

PROJECT ID: P170941; Credit Numbers 7289-KE and 7290-KE

TERMS OF REFERENCE FOR:

REVIEW AND REDESIGN OF EXISTING OPEN UNIVERSITY OF KENYA (OUK) LEARNING MANAGEMENT SYSTEM (LMS)

Contract No: KE-ICTA-509425-CS-QCBS

Issue Date: 4th November 2025

Closing Date: 19th November 2025 at 1000 Hrs EAT

Client:
The Chief Executive Officer,
ICT Authority
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Review and Design Existing Open University of Kenya (OUK) Learning Management System (LMS)

1. Background

The Government of the Republic of Kenya (GoK) has received financing in the amount equivalent to US$390 Million equivalent from the World Bank towards the cost of the first phase of the Kenya Digital Economy Acceleration Project and it intends to apply part of the proceeds to payments for goods, works, non-consulting services and consulting services to be procured under this project.

The project will include the following components.

1.1 Component 1: Digital Infrastructure and Services-The aim of this component is to increase access to high-speed internet for individuals, industry, and government—the 'foundation of the foundations' of a digital economy and strengthen Kenya's role as regional digital leader—while leveraging investments from the private sector

1.2 Component 2. Digital Government and Services- This component will invest in the foundational digital services, platforms, architectures, and policies needed to transform the way the Government communicates and conducts its internal operations.

1.3 Component 3. Digital Skills and Markets- This component aims to equip young Kenyans with digital skills and strengthen their abilities to access and compete in domestic and regional markets through supporting skills development, to study mechanisms to improve access to affordable devices and through enhancing the enabling environment for e-commerce to support Kenya's role as a regional digital hub.

1.4 Component 4. Project Management- This component will support project implementation, coordination, for the Project Implementation Unit (PIU) within ICTA and capacity building.

1.5 Component 5: Contingent Emergency Response Components-This component will be activated in the event of an emergency.

The Gok intends to apply a portion of the proceeds of the Credit to cover activities under sub-components 1.5 (Enhancing Regional Digital Integration). The project aims to accelerate digital transformation at the regional level focusing on critical digital enablers that 'future-proof' economic growth and leveraging Kenya's leadership role in the region to facilitate the adoption and implementation of regionally harmonized frameworks for digital integration.

One such project is the intended review and re-design of the Open University of Kenya (OUK) Learning management system (LMS) which has now been in use for the last 15 months.

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Currently, the LMS is supporting over ten thousand (10,000) users and has the capacity to scale to twenty thousand users. Whereas the current number of course units hosted at the LMS is about three hundred (300) spanning twenty three programs both at undergraduate and postgraduate, this number is expected to grow to about 1,000 course units by the fourth quarter of 2025. Since the Open University of Kenya provides a purely virtual learning environment, the LMS is configured to provide required tools for such environment.

To make the Learning management system better and more scalable to be able to support additional course units and users (learners and lecturers) and to improve the learning experience, there is need to enhance the LMS. The process of enhancing requires a thorough analysis of the existing system through a systematic review. The consultancy therefore aims to carry out a review of the LMS, identify the requirements for the redesign of the same and carry out quality assurance control for the works to be executed by a contractor to be identified.

2. Objectives of the Assignment

The objective of this activity is to evaluate the current LMS, identify necessary enhancements to enhance learning experience, define functional and technical requirements, and outline the scope of work and Terms of Reference for implementation, while also providing Quality Assurance throughout the implementation process.

The specific objectives of the consultancy are:

a) Review the existing OUK LMS and identify required additional functionality. The review should specifically cover:
    a. Integration of LMS to other existing systems and Enterprise Resource Planning systems used by OUK
    b. Additional functionality including but not limited to integration of AI tools for content development, assessment and student tutoring and support and virtual labs which will enhance the overall student learning experience.
b) Define functional and technical requirements for adding this new functionality,
c) Define scope of work and Terms of Reference (ToR) for a firm to undertake the development and integration of this new functionality.
d) Supervise the implementing contractor while providing Quality Assurance Control (QAC) throughout the implementation process

While carrying out the work, the consultant shall be required to pay attention to the need to keep the LMS open, modular, flexible, upgradeable (to future technologies or capabilities) and not locked to any particular vendor..

3. Scope of works and Specific Tasks of the Assignment

3.1 Scope of Work

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The scope of assignment will cover the Open University of Kenya Learning Management System (OUK- LMS) and integration to other related systems such as the University ERP. The expected output is technical requirements/specifications to be used in the procurement of contracting services to reconfigure the LMS with the modern technologies and in conformity with the Open University learning philosophy.

3.2 The specific tasks in this assignment include:

The specific tasks of this assignment are detailed in Table 1;

Table 1: The tasks categorized according to the project objectives

Objective	**Tasks**	
Review the existing OUK LMS and identify required additional functionality	i.	Conduct a Stakeholder Survey t**o** gather input from users to understand their needs and experiences. In particular, it will be useful to map out user journeys- from the perspective of the professors/teaching assistants, students and administrators.
	ii.	Review the existing LMS features and functionalities, compare against user journeys and document strengths and weaknesses while identifying areas of improvement.
	iii.	Benchmark against LMS system capabilities used by other open universities and modern advances in LMS.
	iv.	Analyze collected data to pinpoint missing functionalities that could enhance user experience.
	v.	Create a Functional Requirements Document
	vi.	Create a timeline and action plan for integrating the identified functionalities into the LMS.
	vii.	Plan for Pilot Testing of New Features
Define functional and technical requirements for adding this new functionality	i.	Collect and document user stories that outline specific needs and use cases for the new functionality.
	ii.	Outline Functional Requirements which include user interactions, workflows, and specific outputs for each new feature.
	iii.	Carry out a gap analysis by Comparing existing functionalities with the desired new features.
	iv.	Specify and Technical Requirements
	v.	Develop a comprehensive requirements document with functional and technical requirements
	vi.	Define clear acceptance criteria for each functional requirement with metrics for success and performance benchmarks
	vii.	Validate requirements
	viii.	Develop a work plan for implementation
Define scope of work and Terms of Reference (ToR) for a firm to undertake the development and	i.	Develop the project goal and objectives and identify success metrics for each functionality
	ii.	Define the project scope with details of specific functionalities to be developed, what will not be developed and any constraints or limitations

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integration of this new functionality	iii. Describe the milestones with expected deliverables and timelines iv. Prescribe detailed technical requirements for design and integration with specific technologies, tools and methodologies to be applied. v. Outline Quality Assurance Processes vi. Draft the Terms of Reference (ToR) Document and present it to relevant for approval. The firm undertaking the review and drafting the ToR cannot also bid for the development and integration of this new functionality.
Develop Quality Assurance control (QAC) framework and tools to be used throughout the implementation process	i. Create a QA plan with timelines and milestones for QA activities and outlining the quality standards, methodologies, and processes to be used throughout the implementation. ii. Establish specific quality metrics and KPIs that will be used to measure the success of the implementation iii. Develop a schedule for regular reviews with both internal team members and external QA experts iv. Define and develop various testing strategies, including unit testing, integration testing, system testing, and user acceptance testing (UAT) v. Create mechanisms for gathering feedback from users and stakeholders throughout the implementation process.

4. Duration and location of Assignment

The assignment will be for a period of twelve (12) calendar months. The assignment will be carried out at the Open University of Kenya offices located at the KONZA Technopolis, Machakos county and in any other place within the country as need arises.

5. Reporting requirements and timelines for deliverables/reports

Table 2 shows the reporting requirements and timelines for the consultancy deliverables.

Table 2: Reporting requirements and timelines for deliverables/ reports

Deliverables	Description of Key deliverables	Timelines after commencement date	Number and Format of reports presentation
Inception Report	- Current LMS status - User journeys - Integration points with other ERPs - Gaps -	2 month	3 hard copies and 1 digital copy

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Deliverables	Description of Key deliverables	Timelines after commencement date	Number and Format of reports presentation
Functional and technical requirements report	- Business and Functional requirements - Technical Requirements document - Activity work plan (AWP)	6 months	3 hard copies and 1 digital copy
Scope of work and Terms of Reference (ToR) report	- Project goals .and objectives - Project Scope - Milestones and deliverables - Quality assurance process - TORs	7 months	3 hard copies and 1 digital copy
Quality Assurance (QA) report	- Quality Assurance plan - QA metrics and KPIs - Review plan - Feedback mechanisms	10 months	3 hard copies and 1 digital copy
Final Reports	i. Functional and technical report ii. TORs report iii. Quality Assurance iv. Final Reports	12 months	3 hard copy and 1 digital copy

An activity work plan (AWP) is a detailed description of **specific activities**, **tasks**, **timelines**, **responsible persons**, and **resources** needed to achieve the goals of a project.

All draft and final reports (in specified formats and copies) shall be submitted in the prescribed format to:

The Chief Executive Officer,
ICT Authority
Telposta Towers 12th Floor, Kenyatta Ave
PO Box 27150 – 00100
Nairobi Kenya
Tel: +254 20 2089061/ 2211960 Fax: +254 20 2211960
Email: procurement@ict.go.ke , info@icta.go.ke
Website: www.icta.go.ke

Attention:
The Project Coordinator
KDEAP

And additional three (3) hard copies and a digital copy of each required deliverable to the address below:

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The Vice Chancellor
The Vice Chancellor,
Open University of Kenya (OUK)
KoTDA, 1st Floor, Konza Technopolis
PO Box 2440 - 00606 Nairobi Kenya
Tel: +020 2000211 / 020 2000212
Email: vc@ouk.ac..ke , info@ouk.ac.ke
Website: https://ouk.ac.ke/

6. PAYMENT SCHEDULE

The proposed payment schedules based on satisfactory performance of the consultancy which will be negotiated with the successful consultant will be as presented in Table 3.

Table 3: Proposed payment schedule

S/No	Deliverables	Timelines after commencement date	Percentage of the Lump- Sum contract amount
1	Submission & Acceptance of Inception Report	2 month	20%
2	Submission & Acceptance of Functional and technical requirements report	6 months	30%
3	Submission & Acceptance of Scope of work and Terms of Reference (ToR) report	7 months	10%
4	Submission & Acceptance of Quality Assurance (QA) report	10 months	10%
5	Submission & Acceptance of the final Report	12 months	30%

7. MINIMUM REQUIREMENTS FOR CONSULTANT'S QUALIFICATIONS AND EXPERIENCE

The minimum requirements for the Consultant's qualifications and experience is as follows:

a) **Firm Registration:** The consulting firm must be registered or incorporated with core business in the field of education technology, digital learning solutions, or related fields for a minimum of five (5) years.

a) **Relevant experience:** The firm should provide evidence of having successfully completed at least two (2) assignments of similar nature and complexity, specifically in the area of virtual learning using Moodle learning management system and working with tools such as generative AI, virtual labs, curriculum and module designer in the last three (3) years. In addition, the firm must demonstrate that it has extensive experience in the area of course content digitization, specifically on platforms like the Moodle Learning Management System (LMS). Details of these assignments, including client names and addresses, scope, value, and duration, must be provided with the Expression of Interest (EoI).

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b) **Technical and managerial capability of the firm:** The firm must demonstrate sufficient technical and managerial capacity to carry out the assignment. A company profile outlining the firm's expertise and capabilities should be provided as part of the submission.

8. Team composition and minimum qualification and experience requirements for key experts

The consultant shall demonstrate well qualified and experienced experts as required and appropriate for the execution of the assignment. They should possess necessary resources to undertake works of such nature. The key experts shall personally carry out (with any assistance of other experts deemed appropriate) the consultancy as described in this TOR.

Table 4: Team composition and minimum qualification and experience requirements for key experts

Table 4: Consultants Team

Expert	Requirements
Learning Management System (LMS) Analyst/Consultant	**Education requirement:** A minimum of Master's degree in Computer Science or related field. **General Experience:** Should have a minimum of five (5) years' experience in managing complex education technology projects, with expertise in LMS implementation and customization. **Specific Experience:** The consultant should have experience of minimum four (4) years in systems analysis skills related to learning technologies and systems reengineering.
Instructional Designer	**Education requirement:** A minimum of Master's degree in, Education, Computer Science (or related field), Education Technology, or related field. **General Experience:** Should have a minimum of five (5) years' experience in in designing and developing instructional materials, including curriculum, delivery method plans, assessments, and multimedia content for various delivery modes, which must include online/virtual learning. **Specific Experience:** Should have hands-on experience of a minimum of four (4) years in uploading, managing, and tracking courses within Learning Management Systems like Moodle,
Business Analyst	**Education requirement:** A minimum of Bachelor's degree in Computer Science or related

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	discipline. **General Experience:** Must have at least five (5) years demonstrable strong analytical skills, experience in requirement gathering for software projects, and possess knowledge of LMS integration processes. **Specific Experience:** A minimum of two (2) years experience in configuring a learning management system (LMS)
Quality Assurance (QA) Specialist	**Education requirement:** A minimum of Bachelor's degree in Computer Science or related discipline. **General Experience:** Must have at least five (5) years experience in QA methodologies, testing for LMS environments, and familiarity with user acceptance testing (UAT). **Specific Experience:** Must have a minimum of three (3) years experience in carrying out quality assurance control in an educational environment.

9. ESTIMATED TIME INPUTS FOR KEY EXPERTS

The number of key experts and the estimated time input for each key expert for the assignment are presented in Table 5.

Table 5: Estimated Time Inputs for Key Experts

S/No	Key and support Staff	No	Estimated Time Input (staff-months)
1)	Learning Management System (LMS) Analyst/Consultant	1	10
2)	Business Analyst	1	10
3)	Quality Assurance (QA) Specialist	1	10
4)	Instructional Design expert	1	5
5)	Learning Technology Expert	1	5

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Total	**5**	**40**

10. Responsibilities of the Client

ICTA will engage the consulting firm on behalf of OUK, requiring the firm to carry out the identified tasks with a focus on achieving the expected outputs and outcomes outlined in this TOR. The firm is encouraged to leverage local expertise.

OUK will endeavor to do the following:

1) Supplying available data, studies, and relevant literature necessary for completing the identified tasks.
2) Granting access to required university officials, relevant MDAs and SAGAS, as well as key education and industry players as applicable.
3) Facilitating stakeholder engagement meetings to allow the consultant to gather pertinent information relevant to the tasks at hand.
4) Offering timely feedback on reports and deliverables.

11. Responsibilities of the Consultant

The consulting firm shall be responsible for the provision of all the necessary resources to carry out the services such as market surveys and any other required resources. The consultant is expected to undertake activities that will ensure that outputs are consistent with the professional and legal requirements. All outputs will be presented using modern technology. It is also required that the data is generated through a consultative process that guarantees authenticity and ownership.

The consulting firm bears the responsibility of providing all essential resources for rendering the services, including market surveys and any other necessary requirements. The consultant is tasked with undertaking activities to ensure that the outputs align with professional and legal standards. It is imperative that a consultative approach is employed when carrying out the tasks. Furthermore, the consultant is accountable for delivering all pertinent resources, including curricula, Learning Management System (LMS), source code for plugin integration and any other required resource to OUK upon the conclusion of the project.

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