



**Kenya Bureau of
Standards**

Standards for quality life

KEBS/T020/2019/2020

TO: ALL INTERESTED BIDDERS

REF: ADDENDUM NO. 1 - KEBS/T020/2019/2020: DESIGN AND DEVELOPMENT OF AN INTEGRATED INFORMATION MANAGEMENT (WEB AND MOBILE BASED SYSTEM) FOR KEBS NATIONAL QUALITY INSTITUTE (NQI) AND CERTIFICATION BODY (CB)

The Kenya Bureau of standards wishes to provide the following clarifications to eligible interested bidders:

1. National Quality Institute (NQI) User requirements
2. Evaluation Criteria

2.0 National Quality Institute (NQI)

b) User requirements

ii) Training (In-House and Open)

Additional Requirement under Training: E-Learning technology

Provide a user- friendly environment using E-Learning technology to support learning and performance, using innovative teaching techniques like e-learning, virtual classrooms, or learning via mobile.

User Requirements and Process Flow:

Item	Product	Quantity
1.	Uploading of E-learning modules	More than 100

E-Learning Management System Specifications/ requirements

Item	Description
1.	Clear licensing details <ul style="list-style-type: none">• Intellectual property ownership• No. of users allowed, must support more than 1,000 at a time
2.	System must be scalable to accommodate additional functions
3.	User friendly interface – must be easy to navigate and include a site map
4.	Platform supports aids for users with special needs
5.	Support customizable design to suit KEBS branding requirements
6.	Include course management module
7.	Include enrollment management module

8.	Support of learner self-service including but not limited to registration, access to learning materials, printing of certificates, enquiries, customer feedback
9.	Supports browsing through a wide range of courses: Allows learners to choose from courses provided by category and subcategory
10.	Supports creation of user's (Administrator, tutor and learner) profile with all the necessary details e.g. name, organization, national ID/passport number, unique system-generated ID, photo and other necessary user identification features
11.	Support of timed course duration i.e. enrollment expires after a predefined period
12.	Support for segmentation/branching of the courses offered e.g. inclusion of courses with prerequisites (certain courses can only be undertaken after having done prerequisites)
13.	Supports generation and archiving of Status Report: Feature showing a complete record of courses and the list of pursuing courses, wherever applicable, in each profile and learner's progress. Learners and tutors must be able to access these status reports at any time
14.	Supports notifications e.g. when student course enrollment time is close to expiring, feedback from tutor and other learners
15.	Support for cloud based and virtual classroom environments
16.	Inclusion of multiple (course specific) online chatrooms/forums accessible by both the learners and tutors
17.	Supports Voice and Video Chat
18.	Availability of mobile application
19.	Support of access across different devices e.g. desktop, tablet, and mobile
20.	Availability of Content Management and content authoring/creation tools e.g. graphic & video editing tools, and recording software
21.	Supports predefined Access Levels <ul style="list-style-type: none"> • Administrator • Tutor • Learner
22.	Support of Rich File Formats including PDF, mp4, mp3, jpeg, ppt, excel, word, RTF et al
23.	Support File and Screen sharing for a clear understanding of topics
24.	Supports Broadcasting Lectures or Classes
25.	Support of collaboration and Interactive tools and activities e.g. Collaborative Whiteboard
26.	Integration of payment methods (e.g. M-pesa, debit and credit cards) into KEBS payment process with online payment verification
27.	Support for generation of discount coupons
28.	Support of SCORM Standards and xAPI to enable content interoperability and integration
29.	Support of Assessment methods (quizzes and tests)
30.	Inclusion of a repository for storing of questions that can be used by the system in any combination of questions to test different learners.
31.	Support of automated marking of tests
32.	Support for collection of learners feedback (evaluations, surveys, polls and other elements of customer relationship management)

33.	Support of automated analysis of learners feedback
34.	Support of automated generation of certificates with indexing and secure e-signature.
35.	Generation of recognition badges and CPD points
36.	Provision of search capabilities for content and courses
37.	Support third-party content integrations
38.	Inclusion of a Knowledge repository including notes and other reference materials for learners
39.	Provision of system security structure and backup mechanism
40.	Provision of robust reporting and analytics tools for the admin and tutors (e.g., graphs, charts, standard reports). Include Dashboard to view all Summary and notifications
41.	Inclusion of customer training including System Administrators and Tutors
42.	Inclusion of customer support e.g. helpdesk
43.	Inclusion of customer support policy (response times, escalation policies, and hours of operation)
44.	Inclusion of user support manuals and resources
45.	Links to other KEBS services e.g. NQI Membership Scheme application, KQA registration, KEBS webstore, SMark registration, KEBS HR Norming System and others
46.	Availability of ready learning content for free or purchase an added advantage

E-Learning Process Workflow

a. Content Management process flow

Content management is a critical component of e-learning process. It involves collecting, preparing, publishing and maintenance of content. The flow chart below highlights the key elements of content management, namely technical preparation of content; Extracting, transforming and publishing of content; and Content life cycle management and control.

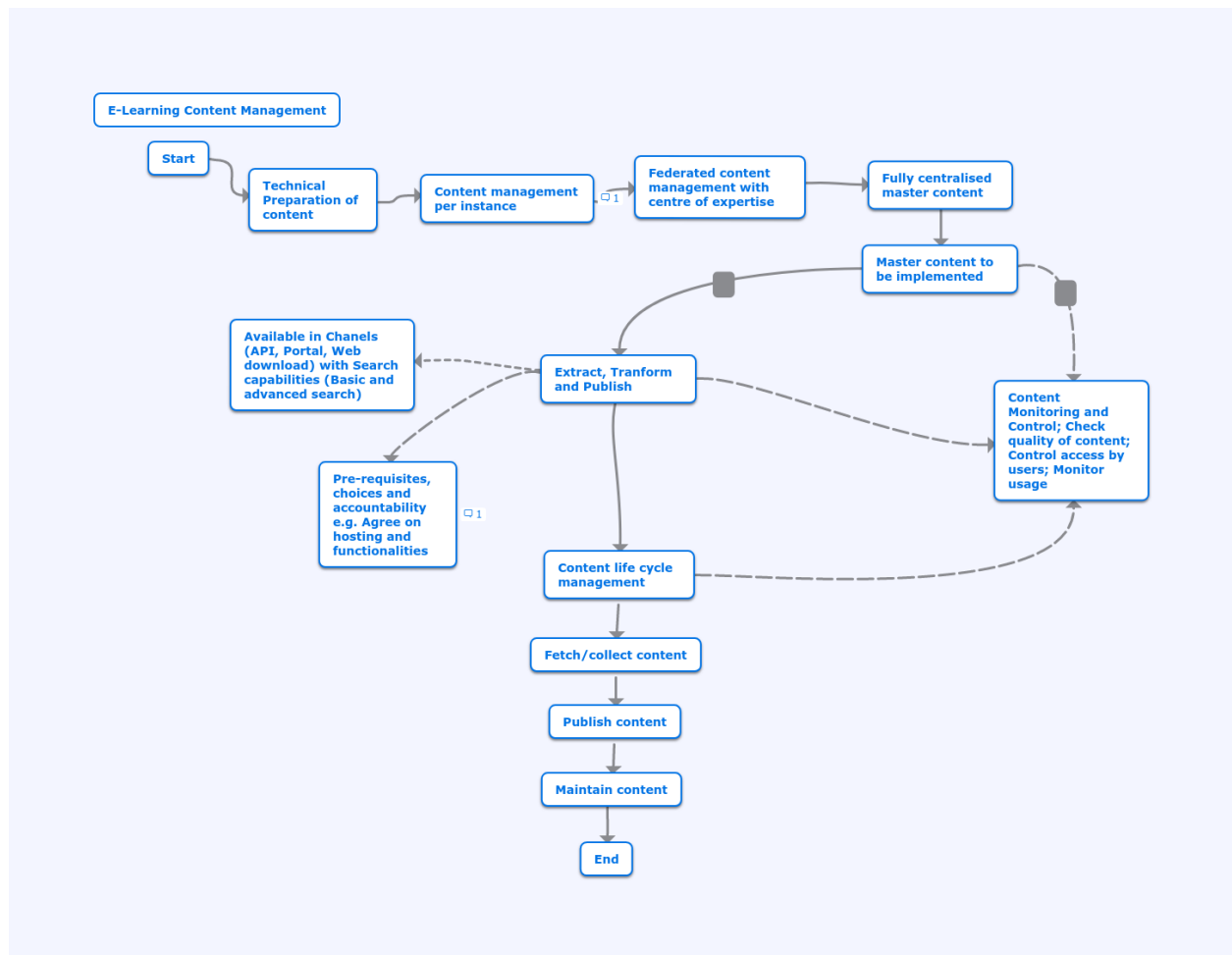


Diagram showing e-learning content management

b. Registration and Training process flow

Registration of participants

- (i) Participant signs up for an account by completing a form with the following details:
 - a. Username
 - b. Password
 - c. Email
 - d. First name
 - e. Surname
 - f. City/town
 - g. Country
 - h. Gender
 - i. Professional background
- (ii) Participant Logs in into the system
- (iii) Participant searches for available courses
- (iv) Participant registers for course/s by completing a form(details)
 - a) Name
 - b) Phone no.
 - c) Postal address
 - d) Postal code
 - e) Email
 - f) Organization/self
- (v) Participant make payment using mpesa, pesapal etc
- (vi) System to generate a unique invoice code and send an alert to the participant via mobile
- (vii) number.
- (viii) Invoice code to be used for completion of the registration process
- (ix) NQI registration officer receives an alert for registered participant
- (x) NQI registration officer sends a course access key to the participant
- (xi) Participant to access material.
- (xii) Participant undertakes the course
- (xiii) If examinable then participant MUST take exam, if pass issue certificate of successful completion. If they fail allow for retake.
- (xiv) If it is a non-examinable course then issue certificate of attendance
- (xv) System auto-generates CPD points and badges on successful completion of course

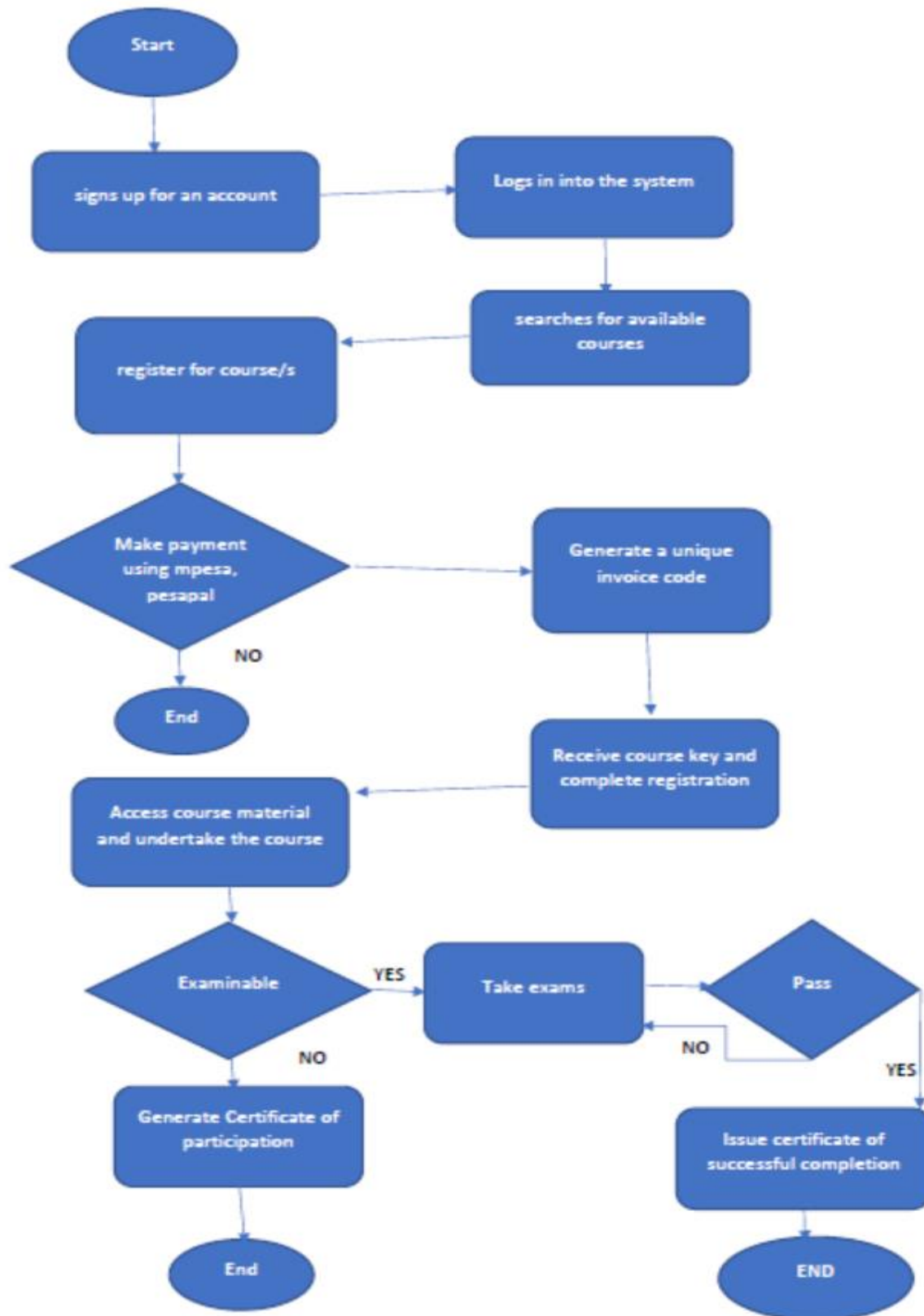


Diagram showing e-learning process workflow

G. EVALUATION CRITERIA

(iii) Proof of concept/Demonstration and presentation (Maximum: 40 points)

The bidder will be required conduct a 45 minutes demonstration based on:

- a) One of the two listed relevant and comparable assignments to demonstrate how CB/NQIMS shall be developed and function

OR

Present a prototype/demo/mock-up of the assignment (in this case the bidder is required to demonstrate a proposal of how CB/NQIMS shall be developed and function as understood by the bidder.

- b) This is a demonstration should be a web based and a mobile base solution that demonstrate all the capabilities of the anticipated system

No	Criteria (the following will be assessed during the demo)	Max Score						
1.	Understanding of the KEBS by demonstrating a plan on how to meet the CB/NQI project objectives and general walk through of the demonstrated application.	2						
2.	Understanding of Assignment Requirements as detailed in the SRS for CB and NQI.							
	<table><tr><td>a.</td><td>Demonstration of implementation of Role based access control for users (Admin, HODs, Managers, Trainers, Administrators, Scheme Managers, Certification Officers, Logistics officers, Auditors, Registered clients, Members and support officers)<ul style="list-style-type: none">• The system should have client side on both web and mobile app to enable members to access the client area.• The system should have a dashboard to view critical information at a glance for different roles.</td><td>2</td></tr><tr><td>b.</td><td>Demonstration of workflow to manage CB/NQI process and related activities not limited to below listed features:<ol style="list-style-type: none">1) Dashboard with all activities of KEBS CB/NQI processes2) Provisions of holding and managing documents associated with KEBS CB/NQI activities3) Should be able to create, track and query a workflow at all stages for Management System Certification, Personnel Certification and Customer Feedback4) Identify the clients based on their specific EAC codes5) Transform all current forms and record generation templates into an online/interactive status6) Ability to generate e-certificates, e-contracts and e-quotations7) Allow online comments, recommendations and approval at all stages of the certification process (from application to release of the Certificate)8) Allow clients to query certification progress at all stages of the process</td><td>20</td></tr></table>	a.	Demonstration of implementation of Role based access control for users (Admin, HODs, Managers, Trainers, Administrators, Scheme Managers, Certification Officers, Logistics officers, Auditors, Registered clients, Members and support officers) <ul style="list-style-type: none">• The system should have client side on both web and mobile app to enable members to access the client area.• The system should have a dashboard to view critical information at a glance for different roles.	2	b.	Demonstration of workflow to manage CB/NQI process and related activities not limited to below listed features: <ol style="list-style-type: none">1) Dashboard with all activities of KEBS CB/NQI processes2) Provisions of holding and managing documents associated with KEBS CB/NQI activities3) Should be able to create, track and query a workflow at all stages for Management System Certification, Personnel Certification and Customer Feedback4) Identify the clients based on their specific EAC codes5) Transform all current forms and record generation templates into an online/interactive status6) Ability to generate e-certificates, e-contracts and e-quotations7) Allow online comments, recommendations and approval at all stages of the certification process (from application to release of the Certificate)8) Allow clients to query certification progress at all stages of the process	20	
a.	Demonstration of implementation of Role based access control for users (Admin, HODs, Managers, Trainers, Administrators, Scheme Managers, Certification Officers, Logistics officers, Auditors, Registered clients, Members and support officers) <ul style="list-style-type: none">• The system should have client side on both web and mobile app to enable members to access the client area.• The system should have a dashboard to view critical information at a glance for different roles.	2						
b.	Demonstration of workflow to manage CB/NQI process and related activities not limited to below listed features: <ol style="list-style-type: none">1) Dashboard with all activities of KEBS CB/NQI processes2) Provisions of holding and managing documents associated with KEBS CB/NQI activities3) Should be able to create, track and query a workflow at all stages for Management System Certification, Personnel Certification and Customer Feedback4) Identify the clients based on their specific EAC codes5) Transform all current forms and record generation templates into an online/interactive status6) Ability to generate e-certificates, e-contracts and e-quotations7) Allow online comments, recommendations and approval at all stages of the certification process (from application to release of the Certificate)8) Allow clients to query certification progress at all stages of the process	20						

	<p>9) Ability to generate ad-hoc reports and assign unique codes for every audit</p> <p>10) It shall create automatic email notification where necessary</p> <p>11) Ability to support for course and enrolment management module, with ability to create learner's profile with all the necessary details e.g. name, organization, ID number as well as support of self-registration</p> <p>12) Ability to supports browsing through a wide range of courses: Allows learners to choose from courses provided by category, subcategory</p> <p>13) Ability to support of timed course duration i.e. enrolment expires after a predefined period</p> <p>14) Ability to supports notifications e.g. when student course enrolment time is close to expiring, feedback from tutor and other learners</p> <p>15) Ability to support for web based and virtual classroom environments</p> <p>16) Inclusion of an online chatroom accessible by both the learners and tutors as well as enhanced interactivity with Collaborative Whiteboard</p> <p>17) Availability of Content Management and content authoring tools</p> <p>18) Ability to support of SCORM Standards and xAPI to enable content interoperability and integration</p> <p>19) Ability to create / upload training content, supporting a wide range of formats (ppt, PDF, mp3, mp4, et al.</p> <p>20) Ability to support variety of assessment methods (quizzes and tests) as well as automated marking of tests</p> <p>21) Inclusion of a repository for storing of questions that can be used by the system in any combination of questions to test different learners.</p> <p>22) Ability to support for collection and analysis of learners' feedback (evaluations, surveys, polls etc.)</p> <p>23) Ability to generate serialized certificates for courses attended, embedded with an e-signature</p> <p>24) Availability of mobile application</p> <p>25) Provision of system security structure and backup mechanism</p> <p>26) Inclusion of user training including System Administrators and Tutors</p> <p>27) Inclusion of customer support policy (response times, escalation policies, and hours of operation)</p> <p>28) Ability to provide live facilitation for webinars & video conferencing</p> <p>29) Ability to display and manage the NQI training calendar.</p> <p>30) Ability to segment / branch (undertaken pre-requisite?; in-house customized or open course?)</p>	
c.	<p>Demonstration of billing and financial management process</p> <ul style="list-style-type: none"> • Ability of the system to let users do training budgets and justification for expenditures. • Ability to make quotations for clients making service requests • Ability of the system to raise invoices to clients against LSO, acceptable commitment notes and synchronize with ACCPAC/Sage 300 system through API. 	4

		<ul style="list-style-type: none"> Ability to accept payment against invoices using established rates through mobile cash payment mode and synchronize with ACCPAC/Sage 300 system through API. 	
	d.	Demonstration on email communication <ul style="list-style-type: none"> Ability of the system to create auto email reply on the client side where necessary. The system should be capable of sending email to an individual client or mass mail to a group of clients upon demand. Ability of the system to send auto reminders to clients on relevant information 	2
	e.	Demonstration of system integration with other related applications <ul style="list-style-type: none"> Integration to the CB/NQIMS The system should demonstrate the ability to integrate with existing systems like (ACCPAC/Sage 300, CRM, KEBS Webstore and the website) The system should be able to integrate with mobile cash transfer platforms like MPesa, Airtel Money etc. 	2
	f.	Demonstration of system overall performance <ul style="list-style-type: none"> Optimal system design (light and utilizes limited CPU resources) Scalability (from the end user's perspective) Ability to host more than one thousand (1000) users at any given time Good work flow Good reporting system 	2
3.	User Experience		
	Friendly graphic user interface (clean interface meeting KEBS theme)		1
	Usability (intuitive)		1
4.	Technology used		
	a.	Web based application (and supports all major browsers), (native or responsive to mobile devices)	1
	b.	Mobile App technology (Android, iOS and Windows)	2
	c.	Use of current modern technology (coding language, framework and database)	1
TOTAL			40

**NOTE THIS ADDENDUM SHALL BE CONSTRUED TO FORM PART OF THE TENDER DOCUMENT
ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME**

MANAGING DIRECTOR