Independent Election Commission

Trust . Integrity . Impartiality

Independent Election Commission

Design and Development

Electoral Training Platform

Introduction

About IEC

The Independent Election Commission (IEC) is the independent Jordanian organization that conducts the democratic elections of Jordan at all levels of government. The IEC was imagined, birthed and developed in a record amount of time. Created in May 2012 as part of the comprehensive political reforms that His Majesty King Abdullah II Bin Al-Hussein initiated, the IEC administered its first election in early 2013 for the 17th Jordanian Council of Representatives. The IEC aims to maintain the highest levels of transparency, integrity and impartiality in the management of various electoral processes, thus ensuring the confidence of Jordanians and the international community at large.

Project Scope

The electoral training platform should be built and designed according to the following general specifications:

- Web-based taking into account the possibility of simultaneous use of up to 40,000 participants simultaneously.
- Avoid redundancy in data entry.
- Monitoring all transactions entered into the system by the user, including login, logout, data updates, and deletion on a daily basis, and saving them in a log file that can be printed and stored.
- The security of the system and transaction information at all layers of the system must be ensured based on ISO 27001 and ISO 27002 standards.
- Use two factor authentication.
- The platform integrating with any system through APIs.
- Integration any system with APIs from the platform.
- Providing a User Manual and a tutorial video for the platform.
- The interface of the platform supports both Arabic and English.
- Designing the platform so that it can be run on various devices: computers, tablets, and smart phones with different operating systems, and the size of different screens.
- Assigning training plans for participants (users), and automatically transferring them to training programs based on their completion of the requirements Technic al support administrator tutor participants Training manager User registration Profiling Assigning profiles Creating courses Virtual rooms for passing training programs approved by, or re-registering for the training program in the case of failure.
- Sending automatic reminders via e-mail or text messages to the participants (users) when the time for training comes, or in case of delay in submitting any training assignment, or announcing dates for the exams to pass the training program or in case of any emergency.
- Allows to view and prepare reports on participant training plans, their history with training status, and progress in passing the training program requirements.
- Contains online content building tools that include building questionnaires, multiple choice questions, videos, peer assessment, virtual training rooms, discussion rooms and forums for building learning communities and more.
- It is allowed to build, host and deliver online courses by having a specific template for building any course or training program online.
- The platform supports holding exams for the purposes of passing the training program through a question bank, for the purpose of issuing training certificates.

System Requirements

Functional requirements

1- general characteristics

- The ability of the participant (end user) to access the system and register in courses (Job Name) and training programs.
- The ability to change some features such as time settings, and screen settings.
- Defining the various security levels in the system.
- The presence of help pages and guides that can be used by the officials of the platform management.
- Hosting the platform in the internet.
- The ability of the platform to support the current and previous versions of all browsers.
- The ability to audit participant records, some errors in use and generate system performance reports.
- The ability to create dialogue forums and virtual rooms with a capacity of 1000 users with the ability to send messages and participate in dialogue forums.
- The ability to add interactive content such as voting system, Gamification, interactive activities, Cartoon films, animation, digital text, videos, voice records, flipping book.
- The platform displays a catalog of training programs available on the platform, in addition to an outline for each training course.
- Unlimited number of users.
- Allowing participant to add suggestions for the platform or training programs.
- Having a specialized evaluation for each training program and reports for this evaluation.
- Allowing the addition of a training video when needed.
- Deactivating a user after a certain period of time if they do not use the platform, automatically determined by the system.

2- specific characteristics

- Notifications about training programs or any activities or delays by the participant / trainer on the system itself or via the participant's e-mail or via text messages.
- Register the platform in the name of the IEC with all rights of use and modification on the platform.
- A profile (profile) for each participant / trainer showing his information, the training courses and programs he has completed, and the programs that he is expected to complete or have been registered to.
- Integration or ability to integrate with the video conferencing system.
- The ability to search the platform by: subject, training programs for each rank or specialty, according to date, and others.
- The possibility of linking Job Name to the various professional paths accredited by the IEC.
- A control panel for the participant that includes the ability to modify the record (profile) for specific information, view the results of training programs' tests and view analyzes of the progress in completing the training programs (Dashboard).
- A dashboard that shows analysis regarding the number of participants in the training programs, and their classification according to job name, gender, etc.
- The platform supports video and audio recording.
- The platform supports the possibility of registering the participant (user) automatically or via Manual registration.
- Ability to send (email, text message, ie..) with all registration information and training program dates.
- Screen for the financial department to verify exam fees.
- Inability to move from one module to another training module without passing the previous module.

3- Content and training programs Management

- The Ability of adding, modifying or deleting some training programs without the need for technological support.
- The Ability of adding, modifying or deleting some job name without the need for technological support.
- Training programs linked with job names.
- The Ability of managing individual and group training plans for participants.
- A dashboard that shows the percentage of interaction in the training programs, the number of registrants, and the rates of progress in completing the training programs.
- The ability to edit the dates of holding training programs or exams and control the evaluation, and the previous requirements for training programs.
- Creating accounts with different privileges that allow managing the platform and content such as: (user, trainer, supervisor, registrar, content manager).

4- Training description

- The platform supports the provision of training programs synchronously and asynchronously, with virtual training rooms, and the possibility of presenting some parts of the training face to face.
- The platform supports the setting of a bookmark for self-learning, in which information is provided to the participant (user) about his progress in completing the training program.
- The platform supports opening various files such as: videos (AVI, MPEG, WMF, MP4), audio, images (JPEG, GIF), presentations, files (Word, PDF).
- Adding questions after each chapter in the training program that must be passed to complete it.

5- The supervisor or trainer properties

- A dashboard screen and should be dynamic.
- The possibility of registering some of the participants in the training programs or seeing the progress in completing the training program, and certificates.
- The possibility of creating tasks, uploading assignments and assigning them to the participants, correcting them and providing feedback.
- The ability to create virtual discussion groups and training rooms.
- Send notifications to the supervisor or trainer to alert about tasks to be performed.

6- The participant (user)

- Allow the participant (user) to register for one or more the training program with the fewest possible clicks.
- The ability to edit the data and view the certificates and the progress of completing the requirements of the training programs.
- Ease of registering for training programs by e-mail or through a link available on the platform, or registering the participant (user) automatically according to his progress in passing the training programs assigned to him.
- The platform allows the user (participant) to create his own self-learning plan.
- Easy access or search for all available training programs.
- Send notifications to the participant about tasks to be performed.
- Displaying the calendar for ending the training programs.
- Presenting the previous requirements for completing the training programs.
- Possibility of registering for more than one training course.
- The ability to add a trainee's picture and place it on the certificate.

7- Exams

- The platform supports the use of different types of response in test questions (true and false, multiple choice, fill in the blank, drag and drop, etc).
- Providing detailed reports on the participant (user's) performance in the tests with flexible reports on pass and failure rates.
- Providing all types of exams.
- The possibility of assigning training programs based on success or failure in exams.
- The possibility of creating a bank of questions for various training programs.
- Attach a financial receipt of 5 dinars in the manner specified by the Independent Election Commission.
- Identifying a process for Electronic Payment Method.
- generate user name and password for every participant to enter the exam.
- The exam location is determined by the IEC.

8- Certificates

- Managing the platform for issuing certification based on passing the training program requirements in force in the IEC.
- Showing notifications for dates of certificates issuance or dates for receiving paper certificates, integration with any platform to send certificates (Sanad application, etc).
- Designing different templates for certificates according to the training program editable.
- The platform enables the user to export and print the certificates he obtained electronically through his personal account on the platform or link send for him. The certificate containing a QR Code linked to an electronic link for authentication and authenticate the certificate information through the platform directly, where the link opens a page that shows the certificate information confirming all its information.

9- Mobile (smart phone)

- The possibility of using mobile to access the platform.
- The platform supports various OS (Android. IOS).
- The platform supports the ability to find an application to run on mobile.
- Open training content with all its components: photos, videos, and virtual rooms on mobile.

General requirements

- Productivity: The platform should be able to service a minimum of 40,000 concurrent users.
- Scalability and flexibility.
- Compatibility: compatible with current web standards.
- Accessibility: The platform must be installed centrally on one or more servers and should be accessed via the Internet. It should have a protected web-based user interface and administrative interface, and as a minimum, it should be compatible with most popular internet browsers and various mobile applications.
- Ease of use: the platform must be adapted for all users so it is easy to use.
- Stability: The platform must guarantee a safe and reliable learning process.
- Performance: The platform should have a quick response time.
- Supportability: The Maintenance of the platform should be easy.
- Legal: The platform should be licensed.
- It should support and facilitate accessibility for people with disabilities

a. System Architecture the Architecture of Platform should be component based where the components can be separated or integrated easily. The components must be well defined so that modules can be reused where and when required, with adoption of the Modular approach of design.

b. Security Features The platform must have standard security features inbuilt so that it has all the checks and balances to ensure integrity of data and the solution does not have any flaws or bugs which inadvertently or by design, permit the users to tamper, alter or modify any data without the appropriate permissions.
The platform should provide highest degree of security in the architecture. The vendor must suggest a suitable security component required in software. In case of any failure, vendor shall be liable for penalty. The following are some of the security issues, but not limited to, which must be addressed in the proposal.
    1- The system would ensure that the users follow login procedures.
    2- The access to the database should be based on the user roles of the organization.
    3- A good validation tools must be used where as its required.

c. Training of Platform Administrator The vendor will provide adequate training to the System Administrators, Data Administrators or any responsible Managers of the platform deployment & operation, server and system configuration and installation, backup services, Directory Management, security requirements, and other necessary technical services, which will enable them to use the platform for timely and accurate production of required information within their area of authority and responsibility. On completion of the training, the administrators will be performing a test on the platform and submit their observations. The observations will cover the following topics:
    - Comments on the training - lecture, coverage, materials.
    - Comments on User Interface and suggestions for betterment.
    - Comments on operational flow.
    - Response time of the system.
    - Data validation and security measures, and Documentations.

d. Warranty
   - The vendor must provide support for a period of 3 year from the time of acceptance of the platform.

e. Backup and Recovery on the place hosting, the platform should be putted on the place hosting servers, and the vendor should support uploading all the platform needs on the place hosting and must also ensure that adequate training is provided to the System Administrator, backup of the database should be taken on daily.