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Software Engineering (CS- 290)
Section: 372

**Business Requirements Specifications document
(BRS)**

Project-Phase No: 1
**The Ministry of Environment, Water and Agriculture revenue
management systems project
(PDF)**

Submitted By

Aliah Abdulrhman Alhameed (440020584)

Neehal Saleh Alomuais (440022069)

Renad Saud Al-hussain (440024784)

Mehaf khaled Allazzam (440021473)

Supervisor

T.jawza almutairy

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1. Introduction

1.1 Business Requirements Summary

An integrated system to manage the revenues that are collected A set of related systems are provided, including the property management system, violations management system, billing management system and customer services management system. Each system will take care of its own requirements that fall under. The system aims to provide services with flexibility and ease. The system supports several types of individual users And the business sector, government agencies and visitors to the Kingdom, and there are many categories of services in the system, public services, environment services, water and agricultural services, land and survey services, livestock services, and fisheries services

1.2 Organization Profile

A system affiliated with the Ministry of Environment, Water and Agriculture required to be submitted to the Ministry in order to develop the work system, where we work as a group to develop the system, make it easier and more flexible, and make users happy with the ease of service and speed of access. The system also serves many groups in society, individuals, the business sector, government agencies, and visitors to the Kingdom, as well as building an integrated system To support clients and provide all possible channels to deliver their voice to ensure transparency and prompt response.

1.3 Scope

The system will be a web-based browser that serves many parties: Government agencies, Individuals, Business sector and Kingdom visitors.

This system is divided into four main tracks for each goal track and different services.

- The first track: Property Management System

The property management system deals with all administrative tasks related to residential real estate affiliated with the ministry.

The system works to control and manage all aspects of the economic exploitation of the entity's resources, including leasable and other facilities, and cooperate with the relevant authorities by examining the latest technologies and how to use them in proportion to the nature of their work.

Through the system, those involved in the ministry can manage the operation and maintenance of the property, market and collect rents or installments from tenants or investors.

- The second track: Violation Management System

The procedure for controlling violations describes how to seize a violation against an individual or firm, as a result of its failure to comply with one of the controls and standards set by the Ministry.

- The third track: Invoice Management System

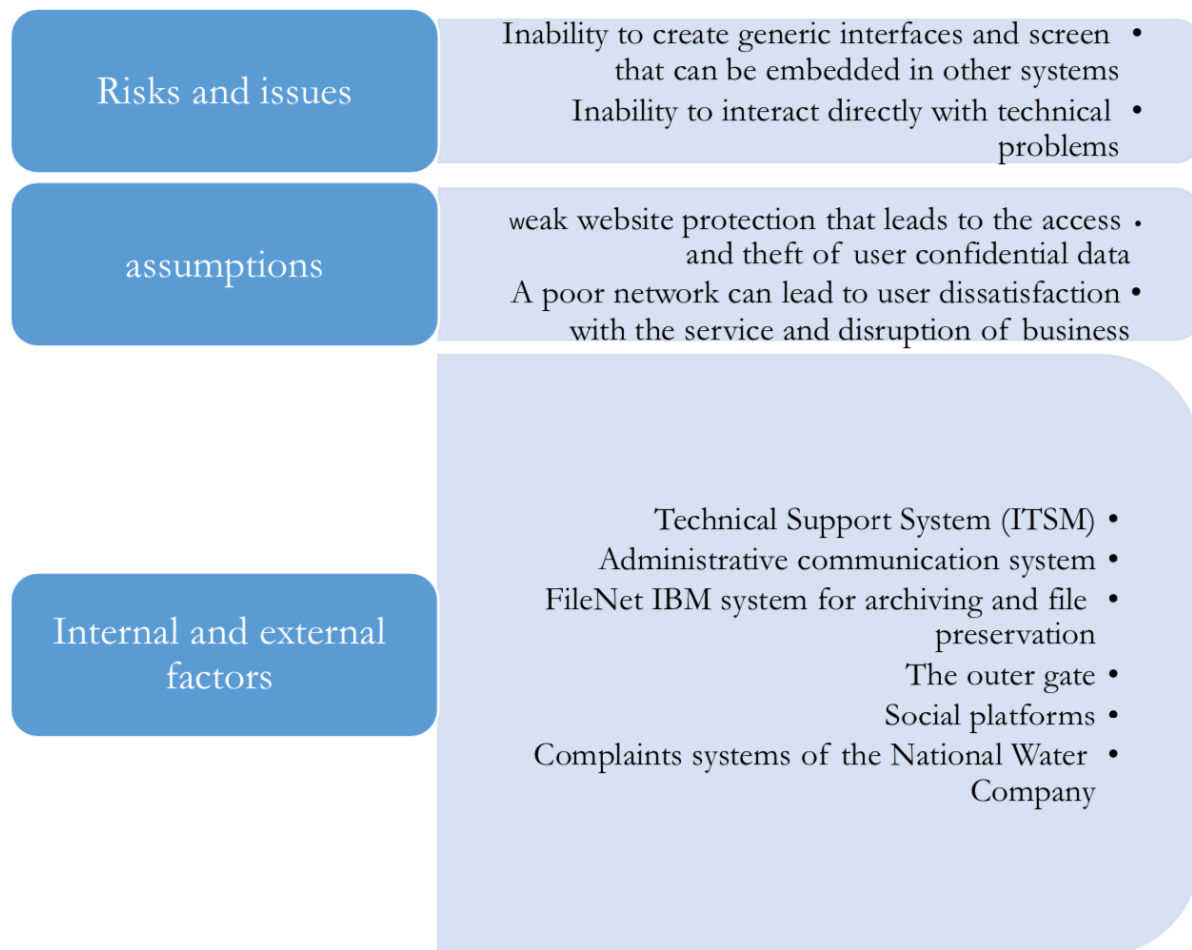
Responsible for the procedures of registering all types of invoices issued by the ministry for all revenues that the ministry collects.

- The fourth track: Customer Relationship Management System

Managing customer relations, complaints, issues and reports because of its interconnectedness on both sides of the business. The application of the platform aims to achieve the strategic objectives and operational

efficiency that the Ministry of Environment, Water and Agriculture seeks to achieve, in order to improve its services provided internally to the Ministry's employees and externally to the parties benefiting from Ministry services.

1.4 Assumptions and Dependencies



1.6 Constraints

The system should be restricted to creating public interfaces and screens that can be embedded in other systems so that they can be used in the event that the API is not used

Internet connection is also a limitation of the system. Because the system must fetch data from Online database, so it is important to have an internet connection for the system to work well.

The Ministry intends to work on building a system of reports and cases on the CRM platform, which is a platform characterised by many characteristics related to the customer axis and what is going on in it.

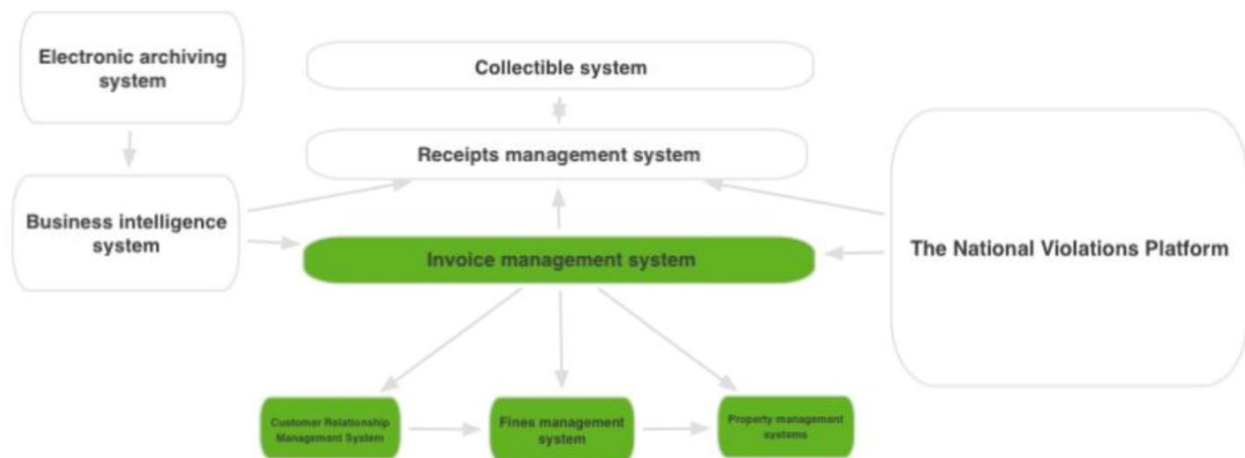
Project cost :

Setup	160\$
Design & building	5000\$
Content Creation	500\$
Training to Use it	600\$
Maintenance	500\$
Total	6760\$

2. General Business Requirements

2.1 Product Perspective

it is a self-contained linked with pre-existing systems an integrated system to manage the collected revenues, which will work to unify and collect all information, data and work procedures related to it, which are summarised in four main tracks: Property management system - Violation management system - Invoice management system - Customer services management system.



2.2 General Requirements

Reg #	Ranking	Requirement
1	Property management system	The property management system will be concerned with all the administrative, organizational and logistical tasks of the entities and buildings belonging to the Ministry to ensure their management and follow-up of their maintenance and contracts in a smooth and flexible manner.
2	Invoice management system	Who will automate the registration work procedures All types of invoices issued by the ministry for all revenues that the ministry collects.
3	Customer Service Management System	As it allows customer support and the availability of all possible channels to convey their voice to their various segments, in a manner that ensures transparency and speed of response.
4	Fines management system	It aims to control violations that were confused as a result of a wrong practice or failure Comply with the rules and regulations issued by the Ministry for the various activities related to the Ministry.

2.3 User Characteristics

Role Name	No.of User	Responsibility/Activity
User	clients	national ID, commercial registration number, national address.
Super User	investors, tenants	national ID, commercial registration number, national address.
Administrator	Ministry employees	Should be an employee of the Ministry of Environment and Agriculture

3. Business Requirement

3.1 Business Requirement for Property management system:

- 1- Issuing rent invoices automatically.
- 2- Linking with the inventory and warehouse department
- 3- Automatic archiving of documents.
- 4- Connecting with electronic services on the land platform.
- 5- Linking with a customer relationship management system.
- 6- Connecting with the short message service in terms of sending notifications via SMS.
- 7- Linking with unified access to facilitate employee access to the application and the system.
- 8- (APIs) All integration points that will retrieve, add, modify or cancel any property data must be provided so that it is available to be linked with it with the various .
- 9- The contractor must link with the ministry's asset maintenance system.
- 10- The ability to post rental bills to the invoice management system.
- 11- Request to terminate a contract
- 12- Ability to extract maps showing each geographical area.
- 13- The ability to extract reports showing contract information for real estate and land
- 14- The ability to define and manage clients dealing with the Ministry and provide their information through the system.
- 15- Transferring the issued invoices to the SADAD payment system so that all external parties can pay them through the system.
- 16- Receive information on collection through SADAD's payment system to update the status of invoices that have been paid.

3.2 Business Requirement for Violation management system:

- 1- Linking with the field visit system.
- 2- Connecting with the national violations platform.
- 3- Linking with the short message service in terms of sending notifications via SMS.
- 4- Linking with unified access to facilitate employee access to the application and the system.
- 5- Linking with a reporting system for the purpose of linking the reports with the records of the offences that arise from it.
- 6- (APIs) All integration points that would retrieve, add, amend or cancel any data related to a system for violations must be provided so that it is available to be linked with it with the various systems of the Ministry.
- 7- Linking with the geographic information system.
- 8- Developing a mechanism for issuing the seizure report for the list of violations.
- 9- Developing a mechanism for writing the final statement of statements.
- 10- Developing a mechanism for auditing and reviewing the record and making decisions about it.
- 11- The ability to generate an image of the penalty decision and send it electronically to the violator.
- 12- The ability to enable the violator to file a grievance against the penalty decision within a specified period from the date on which he was notified of the notification.
- 13- Linking with human resources to retrieve employee data.
- 14- Linking with the inventory and warehouse management.
- 15- Linking with the national violations platform.
- 16- Linking with unified access to facilitate employee access to the application and the system.
- 17- Linking with a reporting system for the purpose of linking the notifications.
- 18- Linking with the Invoice management system.

3.3 Business Requirement for Invoice Management System:

- 1- Connecting with the real estate management system with the aim of issuing lease invoices automatically.
- 2- Connecting with the violations management system in order to issue invoices for violations automatically.
- 3- Linking with the receipts system (Enterprise Resource Planning “Oracle”).
- 4- Linking with the business intelligence system to create reports and dashboards.
- 5- Connecting with point of sale payment machines.
- 6- Linking with a collection system.
- 7- Electronic linking with the FileNet electronic archiving system for the purpose of automatic document archiving.
- 8- Define user data in the Active Directory User Data Server.
- 9- The ability of the system to manage billers and billing categories.
- 10- The ability of the system to classify revenues according to their source and type.
- 11- The ability of the system to manually register the invoices for the miscellaneous income directly in the system.
- 12- The ability to manually record invoices for miscellaneous revenues directly into the system.
- 13- The ability to automate the issuance of invoices for rents to customers.
- 14- The ability to automate the process of issuing invoices for violations to the perpetrators of the violation.
- 15- The ability to automate the process of following up the invoices with customers
- 16- Defining the ministry's services.
- 17- Linking services with the Ministry's revenue accounts.
- 18- Determine the method of calculating fees for each service.
- 19- Define different and various invoice groups for invoice classification.
- 20- Modify / activate / disable billing groups.
- 21- View the billing categories data
- 22- Linking with the customer intelligence system to create reports and dashboards.
- 23- Linking with the Tahseel system.
- 24- Electronic linking with the FileNet electronic archiving system in order to archive documents automatically.
- 25- Adding a new revenue account to the ministry's list of revenue accounts.
- 26- Activating the Ministry's revenue accounts.
- 27- Disabling the Ministry's revenue accounts.
- 28- The matching mechanism with the payment notifications of the Tahseel system.
- 29- Matching mechanism with notifications of refund requests for the Tahseel system.
- 30- Developing a mechanism for granting powers at the level of billing services to users.

3.4 Business Requirement for Customer Relationship Management System:

- 1- The system should have the ability to direct complaints between different users, work teams and / or departments.
- 2- The system should have the ability to configure and manage SLA for each case and by type.
- 3- The system should be able to define the approval hierarchy for each case and by type.
- 4- The system must be able to define the list of tasks to accomplish cases based on the type of case.
- 5- The system should be able to attach documents related to the complaint record.
- 6- All internal and external emails with the customer must be recorded to the Entity Profile (Party Status).

- 7- The system should support customer satisfaction assessment at every stage.
- 8- The system should provide tools to manage the flow of complaints.
- 9- The system should have the ability to amend cases and complaints at all stages.
- 10- The system should have flexible methods of closing the case or complaint.
- 11- The system should support online chatting.
- 12- The system should support the creation of an automatic case through social media.
- 13- The system can add an automatic response to the social network.
- 14- The system must support the authorization feature.
- 15- The system should have the ability to log and track tasks.
- 16- The system should have the ability to assign, delegate, and track the progress of all tasks.
- 17- The system should be able to send reminders before assignment due dates.
- 18- The system should be able to define different types of perspectives for active tasks, which are in progress, and completed tasks due.
- 19- The ability to create new requests for complaints or services through previous requests or forms.
- 20- The ability to locate and retrieve customer information by customer name, contact name or phone number.
- 21- The ability to create complaints or requests from a predefined list of recurring or common activities.
- 22- The ability to create hypothetical response scenarios to customer requests, recurring complaints or questions.
- 23- The ability to save the date, customer name, receiving method, severity, priority and fields defined by the user or complaints sent.
- 24- The ability to quickly assign complaints or service requests to individuals or groups.
- 25- The ability to set a time for customer calls to study performance standards.
- 26- The ability to link support complaints to other complaints and resolve them as a group.
- 27- The ability to link support complaints with services.
- 28- The ability to track complaints by due date, open days, and percentage completed.
- 29- The ability to keep a record of operating notes related to complaints and the results of each complaint.
- 30- The ability to fully describe the complaint, the solution, and the root cause of the complaints should be displayed on one page.
- 31- The system includes diagnostic tools that in turn suggest questions based on the type of complaint on the service or on the product or pre-defined by the user.
- 32- The system should include a search engine for the knowledge base based on the keyword (s).
- 33- The ability to transcribe the old or past occurrence history of resolving complaints into open complaints.
- 34- The system includes online common questions classified according to the type of complaint, type of service, or a pre- defined category by the user.
- 35- The system includes classification of search results and solutions to proposed complaints according to relevance.
- 36- The ability to create an activity plan or task list for detailed customer service solutions or follow through.
- 37- The ability to upload documents or other electronic files related to each complaint to the services and methods of solution.
- 38- The ability to create a sensitive alert notification history for any complaint.
- 39- The ability to automatically assign complaints based on various criteria.
- 40- The ability to automatically notify assigned employees of new complaints tasks.
- 41- The ability to automatically forward email notifications to customers regarding the receipt, status, or completion of a complaint.
- 42- The ability to automatically escalate complaints based on date, elapsed time or failure to meet a service level agreement (SLA).
- 43- The ability to send customer emails to the designated call center warden and call center manager.

- 44- The ability to schedule a customer service task or 'do' a reminder for one or more people, to be complete at the same or different times.
- 45- The ability to include and assign a specific plan for resolving complaints based on the type of complaint or client
- 46- The ability to distribute complaints surveys automatically.
- 47- The ability to automatically redirect or escalate survey responses based on response values or findings.
- 48- The ability to automatically update customer service complaints according to the historical activities of each account.
- 49- The ability to create fax-automatic, email-automatic, or create copies of printed letters from the templates by clicking a button.
- 50- The ability to broadcast e-mail to user defined account groups.
- 51- System capacity to empower non-technical users Create online knowledge bases to reduce repetitive answers to common questions by providing correct and customized answers.
- 52- Self-service portals for customers are available to allow customers to enter the complaint online and review the status of the complaint.
- 53- The ability to automatically upload complaints submitted to the self- service portal to the Customer Support Unit.
- 54- The self-service portal includes links to additional support information.
- 55- Clients have the option to start instant messages (messaging instant, IM) from the self-service portal.
- 56- The ability to review the complaints analysis report according to the type of complaint, the category of the complaint, the service provided and other user- defined segments and classifications.
- 57- The system provides 'root cause' reports and analyzes to identify problem patterns and proactively solve root causes.
- 58- The ability to track all complaint activity and history in one place according to complaint date, user, type of activity, priority, status and more.
- 59- The system includes a report writer tool to modify customer support reports or create new reports from scratch.
- 60- The system provides a central information repository for sharing electronic files and documents.
- 61- The system provides pre-defined user-defined security permissions for central safeguards.
- 62- The ability of the system to check-in / finalize document management procedures.
- 63- The ability of the system to complete the historical review of the use of documents.
- 64- The ability of the system to secure and provide all complaints globally by the Customer Support.
- 65- The ability of the system to bypass global security settings and apply specific complaint security settings to any customer complaint.
- 66- The ability to view a history of the audit statement that shows all the changes made to the complaint, including the user who made each change, the date and time, and the fields that changed.
- 67- The system provides a simple (non-technical) import wizard to import tickets and complaints to the Help and Support Center.
- 68- The system provides the ability for the system user to create or use import forms for repeated imports.
- 69- The system provides a comprehensive modification tool to make specific or comprehensive adjustments to the data.
- 70- The ability of the system to enable the non-technical user to modify the tables in the system.
- 71- The system's ability to enable a non-technical user to modify Web page forms without any technical architecture or programming knowledge.
- 72- The ability of the system to enable the non-technical user to modify, add or remove menu items throughout the system according to users or their individual roles.
- 73- The system's ability to enable the system administrator to define user files

3.4.1 Complaints Management System Path:

- 1- Linking with external systems and social platforms.
- 2- Linking with the complaints systems of the National Water Company.
- 3- Provide mechanisms with social media channels so that it is easy for the person to send (inquiry, complaint, suggestion) to any of the Ministry's accounts, and this request is dealt with through the screens of the customer service system.
- 4- Work to create public interfaces and screens that can be embedded in other systems so that they can be used in the absence of the use of the API provided and provided with the solution.

3.4.2 Path of reports and issues:

- 1- Building a system of reports and issues on the CRM platform.
- 2- MS Active Directory with integration.
- 3- Installing the system on the Availability High Environment Production environment.
- 4- Providing the system's s'API, which enables the ministry to link with business intelligence systems.
- 5- The system worked on the internal and external networks (Intranet) and (Internet The) in the Ministry.
- 6- Installing the system in different environments, namely, Testing Environment, Pre-production Environment (Identical from Production).
- 7- The system provided must be integrated with the personnel system and the use of personnel data. Administrative structure - the applied system EBS O.
- 8- The system should support SSO without the need for any external tools.

4 NON-FUNCTIONAL REQUIREMENTS

4.1 Efficiency

4.2 Scalability

4.3 Security

4.4 Usability

4.5 Portability and compatibility

4.6 Flexibility

4.7 Install-ability

4.8 Accessibility

4.9 Other non-functional requirement

- 4.9.1 The system must support the ability to make backup copies periodically and automatically.
- 4.9.2 The system must support access from anywhere
- 4.9.3 The system must support encryption and high security
- 4.9.4 The system must provide easy-to-use interfaces
- 4.9.5 The system should have all the data for the operations and events that take place by one of the users in the system.
- 4.9.6 The ability to import / export data from the system into XML, common spreadsheets, word processors, and databases