



Le'ajlekom

CCSW313

Section: EA6

# PROJECT REPORT

## PREPARED FOR

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# 1.Business Case Analysis



## 1.1.INTRODUCTION/ BACKGROUND

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Many of Jeddah's residents suffer from several problems including electricity cuts in some slums, sudden water cuts, as well as insects because Jeddah is a coastal city in which insects abound. All the issues mentioned has a negative impact on citizens' general quality of life. Also, the services provided to improve citizens' quality of life are scattered across different government agencies which makes it difficult and time consuming. For example, when the electricity is cut off, a citizen must contact the electricity company. Then, the electricity company will take the citizen's data to start resolving the problem. It may take more than 24 hours to resolve the problem, which causes citizens' dissatisfaction. Besides that, the process is manual and unprofessional. We have decided to build an application for Jeddah Municipality to provide all aspects of citizens' quality of life improvement directly and fast. This will be executed by linking every government agency that increases the citizen's quality of life to the application. Also, our application will be authorized by the government, which makes users' data highly secure and private

## 1.2.BUSINESS OBJECTIVE

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- Our system aims to provide a comfortable and healthy environment for the residents of Jeddah.
- To resolve the largest possible number of problems faced by the residents of the city of Jeddah as soon as possible.
- Employing a large staff to interact with the largest number of problems as soon as possible and obtain citizens' satisfaction.
- To convert every manual process to a fully online service.



### **1.3.Current Situation and Problem/Opportunity Statement**

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The problems of electricity, water, environmental hygiene, and general quality of life are very relevant to citizens. Solutions to these problems are always through a manual process whether by making a phone call or visiting the headquarter of the government agency. These methods are unhandy, unprofessional, and unsatisfactory for the citizens that leads to a delay in responding to the problem and will eventually cause a delay in solving it, too. Therefore, there are several serious consequences for citizens. One of the consequences is that a citizen may be unable to perform their daily life tasks that electricity, water, and other essentials are based on. The system we are going to develop aims to provide all solutions and services to the residents of Jeddah directly, simply, and fast.

### **1.4.Competitive Advantage**

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Our application being the first platform that raises quality of life complaints professionally and easily. Our application uses technology instead of manually raising a complaint whether by a phone call or visiting a headquarter is one of our biggest competitive advantages.

Also, our application links some of the most important government agencies to improve the quality of life of Jeddah citizens unlike any other platform.

# 1.5.SWOT Analysis

## Helpful

## Harmful

### STRENGTHS

- Owned by the government
- Easy to use
- Handy
- Portable (works in different operating systems)
- Controllable (confined to Jeddah citizens)

### WEAKNESSES

- Weak security
- Unreliable cash flow
- Employees with limited skills
- Limited services

### OPPORTUNITIES

- Government funding
- Strong cybersecurity base in Saudi Arabia
- High chance of success that leads to expansion to rest of the country
- Easy to promote since its owned by the government

### THREATS

- Cyber Attacks
- Complaints pile up due to ease of use
- System breakdown due to high pressure
- Project over budget
- Project being behind schedule

Internal

External

## 1.6.Critical Assumption and Constraints

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- The system should handle 40,000 users per day.
- The system shall be limited to Jeddah residents only.
- The system shall have regular maintenance.
- The system shall support Arabic and English languages.
- The system shall contain a section for suggestions and feedback for users.
- The system must be secure from unauthorized users and maintain privacy for all end users.
- The system shall allow no more than 5 complaints from a citizen per month.
- The system shall be linked to all government agencies that support quality of life
- The system shall provide accessibility services such as voiceover for visually impaired or elderly citizens.

## 1.7.Analysis of Option and Recommendation

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- Do nothing. Quality of life issues are resolved manually.
- Create quality of life headquarters in every region in Jeddah that a citizen can visit to resolve issues.
- Build an application that resolves quality of life issues by linking it to every government agency that concerns about quality of life. (Best option).

After discussions with the stakeholders, we have decided that option 3 is the best option.

## 1.8.Preliminary Project Requirements

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- User should be able to raise a complaint to the application that links to any sector that supports quality of life
- Users should be able to raise complaints easily and fast.
- User should be able to view a full report about their complaint status.
- Users should be able to raise attachments with their complaints and recommendations.
- Time flexibility. Users should be able to raise complaints at any time.
- Users should be able to log in by using “Nafath” username and password.
- Users should be able to receive an assuring notification that the system received their complaint/recommendation.

## 1.9.Schedule Estimate

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- The CEO of Jeddah Municipality would like to receive the project fully executed by January 1, 2023, aligning through the Saudi vision of 2030. We assume that the system will be useful for at least 5 years.

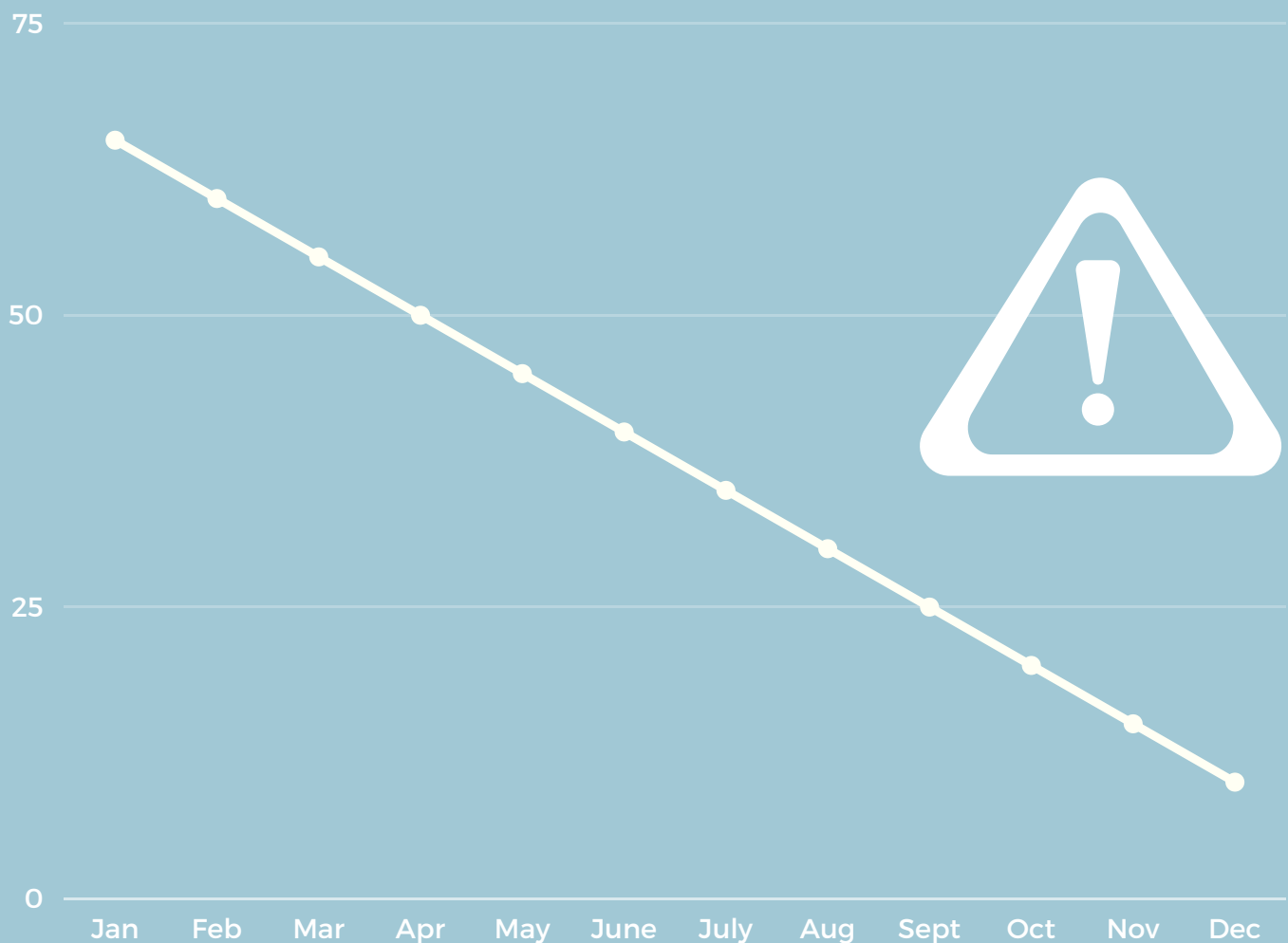
# 1.10.BUDGET ESTIMATE AND FINANCIAL ANALYSIS



A preliminary budget for the entire project is \$200,000. The estimate is based on the staff working a total of 50 hours per week. It also includes the manager working as a full-time job for building this application for three months. A staff would earn \$20 per hour while the project manager will earn by \$50 per year. It also includes \$20,000 for purchasing the software (off-the-shelf), adding and adapting the services to it, and linking the application with the other government agencies. The hourly rate for the developers of the project would be \$55 per hour. We need promotion and advertisement funds and that would cost around \$50,000 for the application to blow up. Also, we have included 20% as contingency funds. After the project is completed, periodical maintenance costs that the system will undergo will be added as \$20,000 annually. Technicians that run the maintenance tests would earn \$100 each time they call for maintenance, too.

Our projected benefits are based on a great increase in profit ratio which would be at least \$100,000 per year. Also, based on the paid partnerships profits with other government agencies. If we worked with at least two government agencies, and each government agency paid us \$5,000 per month, that would be \$120,000. Also, the governmental financial support would be at least \$80,000 annually. Therefore, the total projected benefits are \$300,000 per year.





## 1.11.POTENTIAL RISKS

Citizens, our hand-on users, are the ones to determine whether the application will achieve its goals or not. Many citizens, especially the elderly, strongly dislike change in routines, even if it was to the better. Therefore, citizens may stick to the manual complaint process without knowing the great services the application can provide. There are risks in choosing the best advertising platform to help the application blow up. Also, there are risks in choosing the best “off-the-shelf” software that has the most similar needs to our application.

# 1.12.Exhibits : Financial Analysis

Discount rate	10%						
Assume the project is done in about 3 months		year					
	0	1	2	3	4	5	Total
Costs	\$200,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	
Discount factor	1	0.91	0.83	0.75	0.68	0.62	
Discount Costs	\$200,000	\$18,200	\$16,600	\$15,000	\$13,600	\$12,400	\$275,800
Benefits	0	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	
Discount factor	1	0.91	0.83	0.75	0.68	0.62	
Discount benefits	0	\$273,000	\$249,000	\$225,000	\$204,000	\$186,000	\$1,137,000
Discounted benefits - costs	(\$200,000)	\$254,800	\$232,400	\$210,000	\$190,400	\$173,600	
Cumulative benefits - costs	(\$200,000)	\$54,800	\$287,200	\$497,200	\$687,600	\$861,200	NPV
Payback in year 1							
Discounted life cycle ROI	(((\$1,137,000 - \$275,800) / \$275,800) * 100 = 312%						

Assumptions	
Costs	#Hours
PM (480 hours, \$80/hour)	\$38,400
Staff (600 hours, \$20/hour)	\$12,000
Developer (720 hours, \$55/hour)	\$39,600
Outsourced software and services	\$20,000
promotion and advertisement funds	\$50,000
contingency funds.	\$40,000
Total project costs (all applied in year 0)	\$200,000
Benefits	
increase in profits ratio	\$100,000
Paid partnership profits	\$120,000
Governmental financial support	\$80,000
Total annual projected benefits	\$300,000

# 2. Software Requirement Specification (SRS)



## 2.INTRODUCTION

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Municipality of Jeddah's main goal is the citizen's well-being. We have decided to build an application under the Municipality of Jeddah (MOJ) that cares about the citizens' quality of life. Since the MOJ does not cover water and electricity services, the application links the Electricity and Water Companies to it. The main approach to this application is to allow citizens of Jeddah to raise water, electricity, and MOJ-related complaints easily through the application. We filter the citizen's complaint to where it belongs (MOJ, Water Company, or Electricity Company) and send it to the concerned government agency. Our aim is to make a decrease in quality-of-life issues facing Jeddah citizens. Also, we aim to solve these issues as fast as possible due to the different links we have with other government agencies.

## 2.1.3. Conceptual Model.

# USE CASE DIAGRAM



## 2.2. Functional Requirements

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- FR1. Log in
- FR1.1 The user should be able to log in through “Nafath”.
- FR2. Complaints
- FR2.1 The user should be able to raise complaints through the system.
- FR2.2 The user should be able to upload attachments if required.
- FR3. Follow Up on Complaints
- FR3.1 The user should be able to follow up on the raised complaints and check its status.
- FR3.2 The user should be able to dismiss the complaint request.
- FR4. Send Recommendations
- FR4.1 The user should be able to send improvement recommendations to the system.

## 2.3. Quality Specification

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- NFR1. The system shall allow the Municipality of Jeddah (MOJ) manage the system by linking its database to the MOJ’s database.
- NFR2. The system shall be able to receive the complaints only from the citizens of Jeddah.
- NFR3. The system shall be able to filter at least 98% of the complaints without any system crash.
  - Filtering complaints will go through this process:
    - 1- Determine whether the complaint belongs to MOJ, Electricity, or Water Company.
    - 2- Preparing the filtered complaint to be sent to the concerned agency.
- NFR4. The system shall have an availability of 99.5% on average a year with a maximum downtime of 4 hours (Availability).
- NFR5. The system shall maintain data integrity by keeping backups of all updates to the database for every record transaction (data integrity).
- NFR6. The interface of the application should be user-friendly, and form-based (Usability).
- NFR7. The loading time of the application pages should not exceed 1 second for users (Performance).
- NFR8. The system shall maintain personal information reliability 99.4% of the time (Reliability).
- NFR9. The system shall maintain security by sending a code through SMS to verify one’s identity (Security).
- NFR10. The system must limit the access to the citizen’s information 100% of the time (Privacy).



### 3.Stakeholder register

Name	Position	Internal/External	Project Role	Contact Information
Khadeja Salem	CEO	Internal	Sponsor	<a href="mailto:KHADEJA22@GMAIL.COM">KHADEJA22@GMAIL.COM</a>
Fatima Ali	PMO Director	Internal	Investor	<a href="mailto:FAATIMALI5@HOTMAIL.COM">FAATIMALI5@HOTMAIL.COM</a>
Waad Mokhtar	Senior Consultant	Internal	Team member	<a href="mailto:WAADMOR00@GMAIL.COM">WAADMOR00@GMAIL.COM</a>
Osamah Ahmed	PR Director	Internal	Advisor	<a href="mailto:OSAM7@OUTLOOK.SA">OSAM7@OUTLOOK.SA</a>
Gheada Omar	Tester Specialist	External	Advisor	<a href="mailto:GHADADMAS56@HOTMAIL.COM">GHADADMAS56@HOTMAIL.COM</a>
Sarah Ahmed	Business Analyst	External	Advisor	<a href="mailto:SARAHMED@GMAIL.COM">SARAHMED@GMAIL.COM</a>
Yousif Khaled	Programmer	Internal	Team member	<a href="mailto:YOSIFKHTHO@GMAIL.COM">YOSIFKHTHO@GMAIL.COM</a>
Muna Altherwi	Course Instructor	Internal	Potential Investor	<a href="mailto:MMALTHERWI@UJ.EDU.SA">MMALTHERWI@UJ.EDU.SA</a>
Rasha Alamri	Lab Instructor	Internal	Potential Investor	<a href="mailto:RMALAMRI@UJ.EDU.SA">RMALAMRI@UJ.EDU.SA</a>

### 4.Stakeholder management strategy

Name	Level of Interest	Level of Influence	Potential Management Strategies
Khadeja Salem	High	High	Khadeja is considered as the most important person who is fully interested in the financial gains of the project, manages the meetings, ensuring the successful management of the project and setting future strategy.
Muna Altherwi	Low	High	Muna is an investor in many projects who is not fully concentrated in this project, and she works in this project as a part-time job.
Osamah Ahmed	Low	High	Osamah has many projects to build public relationships with, and he has a huge influence impact on the project regarding his position in the company.

# 5. Project Charter

## Project Charter

**Project Title:** Le'ajlekom

**Project Start Date:** 16th of April 2022   **Projected Finish Date:** 16th of July 2022

**Budget Information:** Due to the financial calculations, the expected budget for this project will cost \$200,000. An initial estimate provides a total of 70 hours per week.

**Project Manager:** Omnia Wajeih, 0500567832, omniaw76@uj.edu.sa

**Project Objectives:** "Le'ajlekom" aims to facilitate raising quality of life complaints to Jeddah citizens. Municipality of Jeddah manages this application, and it links the Electricity Company and the Water Company to expand the scope of the solutions of the citizens quality of life complaints. The Application provides continuous updates on citizens' complaints. It is also responsible for the monthly reports of the complaints that have been resolved by the concerned agencies. Our application is only authorized for Jeddah population so that it is entered through the national address "Nafath". One of main objectives that the users' personal data are 100% protected.

**Main Project Success Criteria:** A decrease in number of complaints raised in the one year due to the effectiveness of our application in solving citizens' problems.

### Approach:

- Allow citizens to raise complaints through the application.
- Make the system reliable by linking it to the Municipality of Jeddah.
- Provide a backup of all data and the ability to restore in the event of failure or hacking.
- Allow citizens to send recommendations and feedback about the services provided.
- Provide log in with biometrics such as face ID and fingerprint.
- Update citizens on the raised complaints.

# 5. Project Charter

## Roles and Responsibilities

Name	Role	Position	Contact Information
Khadeja Salem	Sponsor	Le'ajlekom Consulting, CEO	<a href="mailto:KHADEJA22@GMAIL.COM">KHADEJA22@GMAIL.COM</a>
Fatima Ali	Project Manager	Le'ajlekom Consulting, Manager	<a href="mailto:FAATIMALI5@HOTMAIL.COM">FAATIMALI5@HOTMAIL.COM</a>
Raghad Mohammed	Team member	Le'ajlekom Consulting, IT department	<a href="mailto:RAGHADMOH99@GMAIL.COM">RAGHADMOH99@GMAIL.COM</a>
Shereen Anwar	Team Member	Le'ajlekom Consulting, IT department	<a href="mailto:SHEANZAK0@GMAIL.COM">SHEANZAK0@GMAIL.COM</a>
May Omar	Team Member	Le'ajlekom Consulting, senior consultant	<a href="mailto:MAYOMARQ6@GMAIL.COM">MAYOMARQ6@GMAIL.COM</a>
Refal Ibrahim	Team Member	Le'ajlekom Consulting, consultant	<a href="mailto:REFALNAJMBIRA2@GMAIL.COM">REFALNAJMBIRA2@GMAIL.COM</a>
Khaled Mohammed	Advisor	Client representative	<a href="mailto:KHMOH9@GMAIL.COM">KHMOH9@GMAIL.COM</a>

## Sign-off

Khadeja Salem




Fatima Ali



Raghad Mohammed



Shereen Anwar



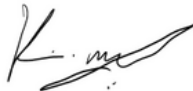
May Omar



Refal Ibrahim



Khaled Mohammed



**Comments:** Following the code of ethics, commitment, respecting time, and cooperating with the rest of the group members are the key to our project's success.

# 6.Kick-off Meeting

## Just-In-Time Training Project Kick-off Meeting 20th of April 2022

**Project Name:** Le'ajlekom

**Meeting Objective:** Get the project off to a great start by introducing key stakeholders, reviewing project goals, and discussing future plans

### **Agenda:**

- Introductions of attendees
- Background of project
- Review of project-related documents (i.e. business case, project charter)
- Discussion of project organizational structure
- Discussion of project scope, time, and cost goals
- Discussion of other important topics
- List of action items from meeting

Action Item	Assigned To	Due Date
Develop and Manage Project Scope	Khadeja Salem	20/4/2022
	Fatima Ali	
Analyzing the interested companies	Osamah Ahmed	22/4/2022
Note taker	Refal Ibrahim	24/4/2022

**Date and time of next meeting:** 8th of May 2022 at 9:00 am.