King Saud University College of Computer and Information Sciences Department of Information Technology

IT 320 Course Project Term-1, 1445H





Sprint-0 <SOUK OKAZ>

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Table of Contents

1	II	NTRODUCTION	3
2		DOMAIN ANALYSIS	
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	2.1	TERMINOLOGY	4
	2.2	TerminologyGeneral Domain Knowledge	4
	2.3	CUSTOMERS AND USERS IN THE DOMAIN	5
	2.4		5
	2.5	TASKS AND PROCEDURES	5
	2.6		5
	2.7	Similarities Across Domains and Organizations	6
3	R	REQUIREMENTS ENGINEERING	
	3.1	System Users	8
	3.2	Use Case Diagram	8
	3.3	Product Backlog	9
1		DEEEDENCES	12



1 Introduction

The season of Souk Okaz requested an application to share the Saudi culture and trade in the Okaz market, since the market exists only for 20 days a year.

Our application aims to make users, who are traders in Souk Okaz, publish posts of their traditional goods, and other users see the posts and share their own experience and write comments on the posts, and for who are interested to Find the best traditional restaurants Souk Okaz application will lead them to the perfect spot, our domain is everyone who are interested in Saudi culture.

We are releasing this document because we are utilizing an agile approach to manage the development of Souk Okaz. The next stage is to assess the requirements engineering and domain, which form the main part of this document.

First, we examined the domain of our project, which is divided into several sections. In the terminology section, we defined key terms that will be used in our software and documentation. In the general domain knowledge section, we mentioned key facts and rules that helped us better understand the data we needed to collect and process. Finally, in the customers and users of the domain section, we described in detail the potential users and clients of our software as well as the people who work in the domain.

To make our software competitive in the market, we first analyzed the strengths and weaknesses of similar existing software and their key features to compare it with. In addition to the environment section, where we mentioned the tools and system, we used to develop our software, we also provided a list of the actions that people typically do when looking for traditional goods to have a better look at the procedures and possible shortcuts.

The requirement engineering process is included in the last part. In order to have a clear picture of the connections that can occur between our system and the actors, we also draw the use case diagram. Finally, we provided the product backlog in a prioritized list that described the expected features and services provided. First, we described our method for requirement elicitation and how we gathered the requirements. We also mentioned the general characteristics of the users of our system to take into consideration while developing the system.

2 Domain Analysis

Our project domain is for any one intend to visit Souk Okaz or interest in the Souk Okaz historical and cultural event, So we developed a useful app to facilitate people to communicate and share their experience and if you are looking for a ticket you can also book from the Souk Okaz application and if you are the owner and you are interested about what people think about your store in the event you can search using your store name.

To have a better understanding about the domain and what the users expect from our app we gathered information from the similar existing software and website where you can share your experience such as Foursquare, Yelp, Google maps.



2.1 Terminology

Several terminology and concepts that may not be part of common language or have specific meanings are used in the context of the domain "Souk Okaz," which refers to a historical and cultural event celebrated in Saudi Arabia. A list of some important words is given here. These terms are important for communicating effectively with users and customers of Souk Okaz and they are:

- -Event Schedule: A feature of the app that provides a timeline and details of activities, performances, and events taking place at Souk Okaz.
- -Interactive Map: A map feature within the app that helps users navigate the Souk Okaz venue, locate specific stalls or attractions, and plan their visit effectively.
- -Poet's Corner: A section of the app dedicated to showcasing poetry and facilitating poetry recitation, allowing users to engage with traditional poetry.
- -Performer's Stage: An area within the app where users can find information about cultural performances, musical acts, and theatrical shows at Souk Okaz.
- -Artisan's Bazaar: A section of the app that features information about traditional craftspeople, their products, and where to find them within Souk Okaz.
- -Souvenir Shop: A virtual store within the app where users can browse and purchase mementos, crafts, and traditional items related to Souk Okaz.
- -Cultural Cuisine: A feature that highlights the diverse food offerings at Souk Okaz, allowing users to explore and learn about local culinary traditions.

These terms are essential for users of the Souk Okaz App to navigate the app's features, engage with the Souk Okaz event effectively, and make the most of their experience. They may appear in the app's user interface, documentation, or help guides to ensure users understand how to use the app to its fullest extent.

2.2 General Domain Knowledge

A traditional market is a conventional form of commerce that has been practiced for centuries and continues to exist alongside modern digital marketplaces, for example Face-to-Face Transactions, Local and Artisanal Products. Traditional markets face competition from modern retail formats and e-commerce, but they continue to play an essential role in many communities worldwide. They offer unique experiences, support local economies, and provide a platform for cultural exchange and economic interactions that go beyond mere commercial transactions, and these cultures are supposed to be preserved even with the advancement of technology.



2.3 Customers and Users in the Domain

Customers: The season of Souk Okaz & Ministry of Tourism and Antiquities.

Users: traders in Souk Okaz, general users with different ages who have interest in Souk Okaz and have visited it.

2.4 The Environment

Souk Okaz is a mobile application that works on the Android platform and works on browsers, and it will be available for download on the Google play store. You can access it through the browser when connected to the Internet.

2.5 Tasks and Procedures

In the past, people who enjoyed shopping for traditional items would typically visit traditional shops like Taybah and Alloway's Markets. However, with the advancement of technology, their shopping habits have evolved. Nowadays, they prefer to search for information about the items they want on websites or applications. By doing so, they can access reviews from people who have already purchased those items. This approach allows them to make informed decisions based on the experiences of others, rather than going to the physical shops without any prior knowledge.

2.6 Competing Software

We found some softwires that is in the same field as ours, softwires that helps us to avoid or solve some mistakes such as Foursquare. It does not provide a feature for how crowded the place is. In other hand it provides other good features, for example it displays a map of your location with signs of events near to you. Also, we found a bad point in Yelp Application, it is not supported in our country, and it does not work also in Arab countries.

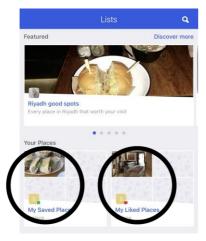
Feature	Google maps	FourSquare	Yelp	SOUQ OKAZ	
create user account	②	Ø	Ø	Ø	
ticket booking for events				Ø	
real-time congestion update	②			Ø	
bookmark favorite places	②	②	0	②	



2.7 Similarities Across Domains and Organizations

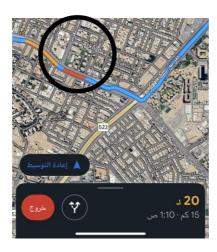
We found some features in several softwires that support same features, and what distinguishes our product from others, for example:

-In Foursquare, you can see in the left picture" My saved places" is an in-common feature which is basically a Bookmark feature that allows you to save places you intend to visit, also "My liked places "for places you already visited or liked. in the second picture "add a photo" feature and "Check-in".





-in Google Maps, it provides an important feature especially for people who hate crowded places which is "real-time congestion update" it informs you about road traffic, in a similar way our app provides the same feature whereas other apps do not. All mentioned was generic, what is specific in our domain that is all the competitive software provide information about events but do not have booking feature which may consume some time for user looking where to book for the required event.





3 Requirements Engineering

To fulfill the requirements engineering process, we will undertake the following steps: documenting the requirements, identifying the system users, creating a use case diagram, and establishing a product backlog that outlines the top features along with their definition of done. By following these steps, we aim to develop a comprehensive understanding of the system's capabilities and ensure that all essential features are incorporated into the final product.

In order to ensure that our software aligns with user needs and considers the strengths and weaknesses of the market, we will conduct thorough research. This research will involve employing various methods such as interviews, questionnaires, and user stories to gather relevant information. Additionally, we will analyze the features offered by similar competitors and compare them with our own, enabling us to identify areas for improvement and differentiate our software from the competition. Through these measures, we can tailor our software to suit the market and effectively address user requirements.

Through the interviews we conducted with potential users, we discovered that many of them face problems with a lack of knowledge about Souq Okaz and its elements and facilities. They expressed the importance of sharing opinions and expressing their experiences to expand knowledge and help each other. So, we came up with the idea of a program that allows users to share their opinions and likes to help them make their own decisions.

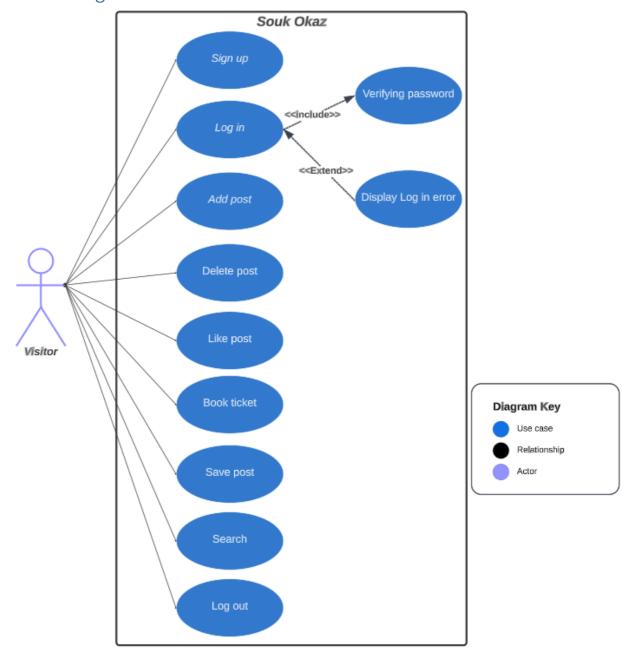
Based on the responses to our questionnaire, we intend to develop a system that satisfies the needs and preferences of users. The findings showed that 76.5% of respondents believe a SOUK OKAZ app is important, demonstrating a strong desire for this service. In addition, 76.5% of respondents are interested in the Souk Okaz app's services. Additionally, a strong demand for SOUK OKAZ services is reported by 70.6% of respondents, demonstrating the potential worth of such apps. The need for a more effective and user-friendly replacement was highlighted by the fact that more than half of respondents, 64.7%, said they had trouble navigating Souk Okaz or finding traditional goods. 47.1% of respondents said it was difficult to find a suitable traditional good, whereas it was easy for 52.9% of respondents.

In conclusion, the requirements engineering section can be divided into several key sections. It begins with an introduction that highlights the purpose and importance of requirements engineering. The requirements elicitation section focuses on gathering requirements from stakeholders using various techniques. The requirements analysis section involves refining and validating the collected requirements to ensure clarity and feasibility. Requirements documentation is crucial for capturing and organizing the requirements in a structured format. Verification and validation techniques are employed to ensure the quality and correctness of the requirements. Requirements management encompasses activities such as traceability, change management, and version control. Lastly, effective communication and collaboration among stakeholders play a vital role throughout the entire requirements engineering process. By following these sections, organizations can effectively gather, analyze, document, manage, and validate requirements to ensure successful software development projects.

3.1 System Users

Our expected users are those who are interested about Saudi culture or want to know about Souk Okaz or Store owners in Souq Okaz. They should be 16 years old or above. Store owners must have a legal license in (freelance) platforms. Additionally, they should have completed middle school or above. and should have Learnability and understanding of using mobile applications.

3.2 Use Case Diagram





3.3 Product Backlog

This section contains our product backlog which includes the prioritized features of our project in user stories format with more details such as the size and the acceptance criteria in addition to definition of ready for the 6 top user stories that are ready for implementation in the next sprint.

• Definition of ready:

√	Business value is clearly articulated				
✓	Details are sufficiently understood				
✓	Dependencies are identified; no blocking dependencies exist				
✓	Team is appropriately staffed relative to the PBI				
✓	Estimated and small enough to be completed during sprint				
✓	Acceptance criteria are clear and testable				
✓	Performance criteria, if any, are defined and testable				
✓	Team understands how to demo the completed PBI				





PBI	Size	Type	Acceptance Criteria
As a user I want to add a post so that I can share my experience and recommendations about the places I visited in Souk Okaz.	3	Feature	If the user clicked on the 'Plus' sign button in the home page, then the user will be directed to a page for adding a new post. Users can add photos and write descriptions or details below the photo. The page should also include an "add" button, which, if clicked then the post will be added to the application and will be visible to all users.
As a store owner I want to delete my post So that buyers know that the product is no longer available.	3	Feature	If the user taps on the delete button, a pop-up will come up with options to confirm or cancel. If you click "confirm," the post will be removed from the database. If you choose "cancel," nothing will happen, and the post will stay in the database.
As a user, I want to be able to edit my previously published posts, so that I can make updates or improvements my recommendation content.	3	Feature	If the user taps on the edit button, then users should have the ability to modify the post's content, and multimedia elements then If the user taps on the save button post will be updated on database If user choose "cancel," nothing will happen, and the post will stay in the database.
As a store owner I want user to view my post So that the user knows the details of what I offer.	3	Feature	If a user clicks on a specific post, then the post page will appear including the picture, like, Save button, descriptions, like button.
As a user I want to log in to my account so that I can enter my account and take advantage of the application service.	2	Feature	If the user enters email and password and hit "submit," the system will verify if that information already exists in the database. If it does, you'll be directed to the home page. But if there's no record of your information, you'll see an error message indicating that you haven't registered yet.



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As a store owner I want to sign up so that I can offer my products to interested buyers and view other store products.	2	Feature	If the user fills in their information including the name, email, and password in the registration page and clicks on the submit button, then the system will verify if they already exist in the database. If they're new, confirmation message will appear, and they'll be redirected to the login page. If they already exist, they'll be prompted to log in
As a user I want to log out so that I can exit my account.	2	Feature	If you click on the logout button, a pop- up message will appear asking if you want to confirm. If the user choose "yes", you'll exit your account and lose access and privileges. If you choose "no," you'll stay logged in.
As a user I want to like and dislike the post so that I can show my feelings and support the post.	3	Feature	If a user clicks on a specific post, then the post page will appear including the picture, like, Save button, descriptions, like button. If the user clicks on a like button, then the button color will change.
As a user I want to be able to search for a specific store or product so that it saves my time rather than scrolling through the whole application.	3	Feature	If the user searches for a store or product that already exists, then it will appear on the page. However, if the product does not exist, then a feedback message should appear informing the user that the product does not exist.
As a user I want to save the post so that I can get to it later faster.	3	Feature	If a user clicks on a specific post, then the post page will appear including the picture, like, Save button, descriptions, like button. If user clicks on a save button, then the button color will change, and the saved posts will be stored in the user's database.



As a user I want the app to be easy to use so that I can learn to use it in 10-15 minutes.	3	Feature	If the 10 selected users learned how to use the system in 10-15 minutes, then the system is easy to use.
As a user I want the app to be fast so that response time to view post details does not exceed 30 seconds.	3	Feature	If the 10 selected users selected post details from the app, then there should be a response in 30 seconds.

4 References

[1] (2023, 8 10). Retrieved from Foursquare: https://foursquare.com/

[2] draw the use case. (2023, 8 10). Retrieved from lucid: https://lucid.app/documents#/documents?folder_id=home

[3] Tutorial slides



Appendix A: interview

- Interview Questions
- 1. What challenges do you typically encounter when it comes to sharing your opinions or thoughts on cultural aspects in Souk Okaz?
- 2. What kind of information or details do you consider essential before participating in a program for sharing opinions in Souk Okaz?
- 3. If there was an app specifically designed for sharing opinions and thoughts on cultural aspects in Souk Okaz, what features would you like to see included?
- 4. Are you interested in actively participating in discussions or expressing your opinions on cultural topics in Souk Okaz? If so, what motivates you to do so?
- 5. If an app allowed you to share your opinions and thoughts on cultural aspects in Souk Okaz, would you trust the platform and other participants? What factors would increase your trust in them?



Online inte	rview (1)
Interviewee: Rana	Interviewer: Ruba
Location\Medium: zoom meeting	Appointment Date: 2 Oct Start Time: 8:00AM End Time: 8:40:6AM
Objective: Gain information about the challenges that people faced when going to Souk Okaz Gain information of how people get people opinion in purchasing from Souk Okaz	Reminders: the interviewee has been a visitor to Souk Okaz, she's interested in Culture and encourages intellectual and cultural exchange, and she always shares her thoughts about the historical aspect and cultural On Twitter
Agenda: Introduction Background in Project Overview of Interview Topic to be covered. Permission to Record Question1 Question2 Question3 Question4 Question5 Summary of Major Points Questions from Interviewee Closing	Approximante time: 3min 4min 2min 2min 2min 6sec 4min 3min 5min 4min 3min 5min 5min 2min 2min

General Observation: The interviewee demonstrated interest in responding to a variety of topics and offering her point of view throughout the conversation. She also reaffirmed her unwavering support for the notion of creating this application.

Unsolved Issues, Topic not covered: we've covered almost everything, and we finished in time.



Online interview (1)		
Interviewee: Rana	Date: 2 Oct 2023	
Question:	Answers and Notes:	
1. What challenges do you typically encounter when it comes to sharing your opinions or thoughts on cultural aspects in Souk Okaz?	It is rare to find people interested in heritage, especially these days, so it's difficult for me to find people how are interested in cultural aspects to share my opinions and experience in Souk Okaz with. Observation: she was a little frustrated that no one shares the same interest with her and there's no right place that she can share her experience	
2. What kind of information or details do you consider essential in participating in a program for sharing opinions in Souk Okaz?	maybe provide a guideline for using the program to make it easy to use for most people because Souk Okaz has a lot of visitors from different cities in Saudi Arabia. Observation: she was excited when giving her answer	
3. If there was an app specifically designed for sharing opinions and thoughts on cultural aspects in Souk Okaz, what features would you like to see included?	It would be lovely if I can post some pictures about the thing I find interesting in Souk Okaz and give feedback about my experience, also being able to see what other people are sharing. Observation: She took a minute to think about the feature that will be helpful for her point of view	
4. Are you interested in actively participating in discussions or expressing your opinions on cultural topics in Souk Okaz? If so, what motivates you to do so?	Of course, One of the most important factors that motivates me to participate and express is the desire to enhance knowledge in the cultural aspect, and I am interested in knowing the opinions and experiences of others in this field. Observation: It seems that she liked the idea of exchanging and sharing opinions in Souk Okaz	
5. If an app allowed you to share your opinions and thoughts on cultural aspects in Souk Okaz, would you trust the platform and other participants? What factors would increase your trust in them?	Trusting the platform and other participants would be essential to me, active engagement among participants would significantly increase my confidence in the platform, particularly if there are constructive discussions and a respectful exchange of diverse opinions. Observation: It seems important to her that the other participants in the program are individuals who are serious and reliable in expressing their opinions.	



Online interview (2)		
Interviewer: Taif		
Appointment Date: 3 Oct Start Time: 9:00AM End Time: 9:42:8AM		
Reminders: The interviewee was a fashion designer at Souk Okaz. She is interested in heritage and historical fashion, encourages intellectual and cultural exchange, and she always searches for people opinions about her designs on Instagram.		
Approximante time: 3min 4min 2min 2min 8sec 4min 4min 5min 4min 5min 4min 3min 5min 2min		

General Observation: The interview was clear. She was cooperative and responded with details, expressing her interest and desire for the application and that she would be the first to benefit from it.

Unsolved Issues, Topic not covered: we've covered everything important.

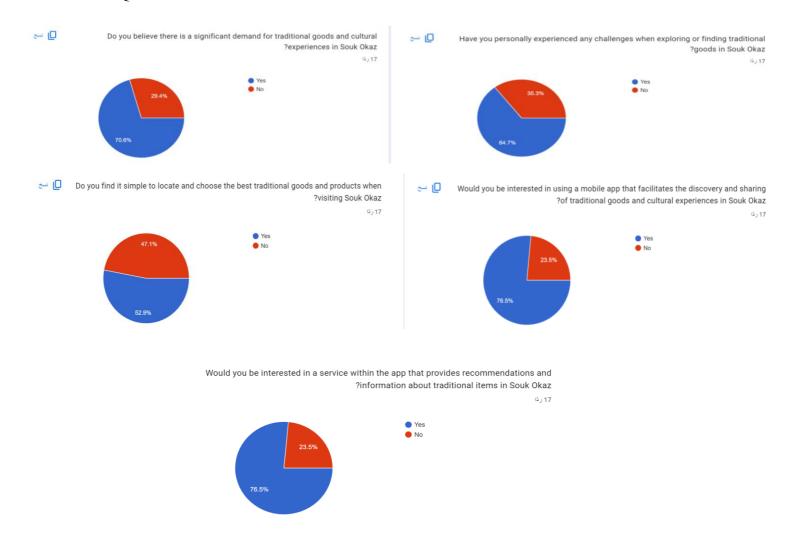


Online interview (2)		
Interviewee: Renad	Date: 3 Oct 2023	
Question:	Answers and Notes:	
1. What challenges do you typically encounter when it comes to sharing your opinions or thoughts on cultural aspects in Souk Okaz?	As someone interested in heritage and historical fashion, it has become increasingly rare to find individuals who share this interest without any modern adaptations. Observation: She spoke with interest and curiosity about the problem	
2. What kind of information or details do you consider essential in participating in a program for sharing opinions in Souk Okaz?	Before sharing my opinion on the application, I think my sharing must be my experience and not someone else's experience, and I think the opinion must be supported with pictures, as they are better at conveying the idea. Observation: She seems upset by the lack of credibility of some people when expressing their opinion.	
3. If there was an app specifically designed for sharing opinions and thoughts on cultural aspects in Souk Okaz, what features would you like to see included?	It is wonderful to have such an application. It will help me a lot in communicating with people interested in traditional fashions. It would be great if there was a feature to evaluate stores and the customer could communicate privately with the store owner. Observation: she shed light on some new feature that we hadn't thought about	
4. Are you interested in actively participating in discussions or expressing your opinions on cultural topics in Souk Okaz? If so, what motivates you to do so?	Souq Okaz is one of the festivals in which I am always keen to participate, and I greatly enjoy being among people familiar with our wonderful culture. What motivates me to do this is my fear that this generation will lose their interest in history. Observation: She responded quickly, enthusiastically, and with a focus on cultivating the interest of this generation in Saudi history	
5. If an app allowed you to share your opinions and thoughts on cultural aspects in Souk Okaz, would you trust the platform and other participants? What factors would increase your trust in them?	I think that I should not completely trust social media platform, as sometimes there are hateful users who express wrong opinions, but I may trust them more when there is a clear account and posts that do not contain inappropriate words. Observation: She spoke confidently and honestly	



Appendix B: Questionnaire

- Questionnaire Questions
- 1. Do you believe there is a significant demand for traditional goods and cultural experiences in Souk Okaz?
- 2. Have you personally experienced any challenges when exploring or finding traditional goods in Souk Okaz?
- 3. Do you find it simple to locate and choose the best traditional goods and products when visiting Souk Okaz?
- 4. Would you be interested in using a mobile app that facilitates the discovery and sharing of traditional goods and cultural experiences in Souk Okaz?
- 5. Would you be interested in a service within the app that provides recommendations and information about traditional items in Souk Okaz?
 - Questionnaire Answers





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Appendix C: Jira:

