Absher Application

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Figure 1: Task schedule

Contents

0.1 Abstract

Absher is one of the important applications in our daily lives. The Absher application aims to facilitate our lives and complete government transactions easily without going to centers and wasting time waiting. By entering the application and entering through the appropriate option to complete your transaction, the application ensures an easy and enjoyable experience for users. Through user-specific interfaces and strong database management, the application meets the diverse needs of Saudi citizens and residents, which ultimately facilitates a systematic lifestyle

Figure 2: Application Interface

1 Chapter 1

1.1 Introduction

Let's assume now that we are in the past time, and you have a transaction that you want to finish. You must go out early and go to the government department yourself to finish a transaction. You must book a place in the queue and wait, and this waiting may be in the hours, and yet important documents and data are with you. You are in a consolidated file. Everything you may need regarding this transaction.

Also if you want to follow up on the same transactions as we mentioned earlier, you must go book, describe, etc., or another way is to call the phone on the fixed, and sometimes there are no responses.

From the other hand, if your transaction is in an area far away from you, you must travel to complete something simple, and this simple transaction may take a day, two, or maybe three, or sometimes you come from a distant area to complete your transaction. They will receive a malfunction, or they tell you that we will return tomorrow, so it will be a waste of time and effort.

Then, in a time of speed and technological progress, we appeared to have an application called "Absher", a digital electronic system launched by the Saudi Ministry of Interior that allows Saudi citizens and residents to conduct their own transactions without the need to review departments and branches. It is an official application of electronic services in its various sectors. It also saves a lot of time and effort. The platform provides approximately 330 electronic and information services for its users, thus solving many problems of wasting effort and time

1.2 Purpose of the Application

The application serves citizens, residents, and visitors in the Kingdom of Saudi Arabia by simplifying government procedures and saving time.
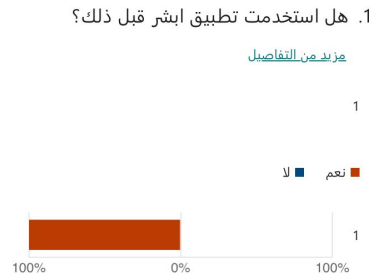
1.3 Survey Results

Figure 3: The first graph shows that 100% of survey participants have used the Absher app before, reflecting widespread usage among the target sample.
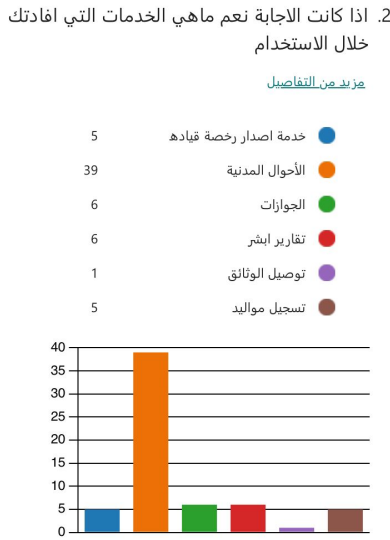

Figure 4: The majority of users, 39 participants, benefited from civil status services, while fewer used services like issuing driving licenses and passports. This highlights the most common services accessed on Absher.

معارف دقيقة ٪ مزيد من التفاصيل

نعم ● 40

لا ● 0

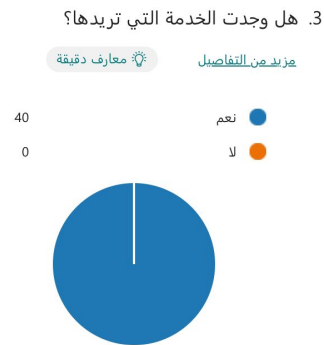Figure 5: The survey shows that 100% of participants found the services they were looking for in the Absher application, demonstrating its comprehensive service offering.
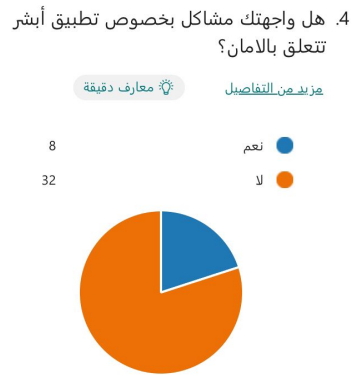
4. هل واجهتك مشاكل بخصوص تطبيق أبشر تتعلق بالامان؟

معارف دقيقة ٪ مزيد من التفاصيل

نعم ● 8

لا ● 32

Figure 6: 32 users reported no security issues, while 8 reported encountering some. This reflects high security confidence among most users.

⟨ 5. اذا كانت الاجابة نعم ماهي المشكلة التي واجهتك؟ ⟩

11 الاستجابات

الاستجابات	الاسم	ID ↓
لا	anonymous	28
نعم	anonymous	27
لايوجد	anonymous	26
نعم	anonymous	25
نعم	anonymous	24
نعم	anonymous	23
نعم	anonymous	22
نعم	anonymous	21
.	anonymous	18
لا توجد	anonymous	12
لا	anonymous	4

Figure 7: The chart shows users' feedback on the problems faced. Some users detailed issues, while others left the question blank, giving insight into the nature of reported problems.

6. هل تنصح الجميع بتطبيق ابشر؟

مزيد من التفاصيل   💡 معارف دقيقة

40   ● نعم

0   ● لا

Figure 8: All participants recommended using the Absher app, reflecting high satisfaction and trust among users.

8

7. تقيمك

مزيد من التفاصيل   معارف دقيقة

4.89

متوسط التصنيف

Figure 9: Absher received an average rating of 4.89 out of 5, reflecting high user satisfaction.

9

‹ 8. هل تود إضافة بعض التحسينات او الخدمات لتطبيق ابشر؟ ›

40 الاستجابات

لا	a	35
No	a	34
لا	a	33
لا	a	32
تسهيل طريقة تسجيل الدخول لكبار السن	a	31
نعم	a	30
نعم	a	29
لا	a	28
نعم	a	27
لايوجد البرنامج جيد	a	26
نعم	a	25
نعم	a	24

Figure 10: Users suggested some improvements, such as simplifying the login process for the elderly, but overall, the application works well.

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1.4   Existing systems :

Similar applications	Advantages	Disadvantages
Tawakkalna (Saudi Arabia)	A set of health, government, and educational services Easy to use It shows the current health condition	It relies heavily on the internet Technical problems can arise sometimes
Digital Identity (UAE)	A trusted digital signature that eliminates the need for you to go and sign documents The possibility of accessing various services, such as renewing licenses and paying bills A very high security level that relies on the latest security technologies to protect your personal data	Some users are facing difficulties in linking their accounts with certain services The app requires constant updates of information, which may be annoying to some
Sahl (Kuwait)	An easy-to-use interface with links to government services Instant notifications for users regarding service appointments or document expiration Regularly adding any new service to meet the needs of .citizens and residents	The scope of its services compared to similar applications in other countries Some users are experiencing slow performance during use
E-Gov (Bahrain)	A comprehensive application that covers various government services A smooth user interface and ease of using government services It provides an easy electronic .payment service	Some people complain that the app is slow to respond Some users are experiencing issues with internet connectivity or logging in

Figure 11: Existing systems

1.5   Our application features :

It is the official source for many government agencies and also provides more than 330 Service. Our application is also linked to many government agencies in the Kingdom Saudi Arabia, making it comprehensive in providing government services.
   - These agencies also include:

- Ministry of Interior

- Ministry of Justice

- Ministry of Health

- General Traffic Authority

Our application also relies on advanced technologies in the field of cybersecurity. The app can be downloaded on smartphones as well, making it easier to access your information quickly. In the latest updates received by the application:

- Improved user interface

- Addition of Absher Business Services

- Artificial intelligence support

1.6   Conclusion:

There is a significant development in the digital world, which helps citizens and residents in a simple and fast way. The Absher application is one of the best programs used by citizens to solve all services faster and provides more than 330 government services in addition to the Absher Business service, which helps in reducing time and effort.

It is linked to many government agencies such as the Ministry of Justice and the Ministry of Health and works on advanced technologies such as the field of cyber security to maintain the security of the user's information and works to improve interfaces. The Absher application is a link between the citizen and the government.

As the results above indicate, the application has achieved great success, as everyone was impressed by the services provided by the application, thanks to the Absher application, which has become a means and a strong link between citizens and the government.

The Absher application represents a very important step in the digital transformation in the Kingdom.

2 Analysis :

2.1 introduction:

The analysis includes the functional and non-functional requirements of the "Absher" application, and the processes and services provided through it will be explained.

2.2 Functional requirements :

- Updating Data:

Upon logging into the app, the user selects account settings, allowing them to modify personal information. Once the changes are confirmed, a verification code is sent to the registered mobile phone for confirmation.

- Traffic Violations:

The user can access traffic violations, select the violation, and make electronic payments via the "SADAD" system. After the payment is completed, the status of the violation is updated accordingly.

- Vehicle Inquiry:

The user logs into the app, selects the "Vehicles" section, and proceeds to vehicle inquiry. The registered vehicle details, such as license plate number and car type, are displayed. The user can view all information related to the vehicle.

- Passport Issuance and Renewal:

The user logs into the app, navigates to the "My Services" section, and selects "Issue Saudi Passport." The required information is filled out, and personal photos are uploaded. After confirming and paying the necessary fees, the passport is issued.

- National ID Renewal:

The user logs into the official Absher Individuals website, enters the necessary details, and selects "My Services," followed by the Civil Status section for "National ID Services" and then "Renew National ID." After completing the required information and uploading a personal photo, the user pays the fees and schedules an appointment to collect the new ID.

2.3 Non-functional requirements :

- Performance: Absher must be fast to perform and is able to deal with a large number of users at the same time without suspension or slowness.

- Security: Absher deals with very sensitive data, such as ID and passports, data protection must be very high, also with the presence of strong encryption techniques and methods of achieving honesty and a firewall against electronic attacks.

- Availability: The website must be operational 24 hours without interruptions, so that people can rely on government services at any time.

- Maintenance: If it issues a system update or maintenance, it is necessary to be done quickly without disrupting users, so the maintenance process must be flexible so that it does not affect the user.

2.4   Conclusion:

The requirements of the "Absher" system contain functional aspects that focus on the ease of using government services such as updating data and paying violations. Non-functional requirements include ensuring high performance and strong security, which enhances the efficiency of "Absher" in providing its services to users in a secure and permanent manner

3 Design

3.1 introduction:

The design includes the interactive interfaces of the "Absher" application, as well as the internal system structure and programming languages used.
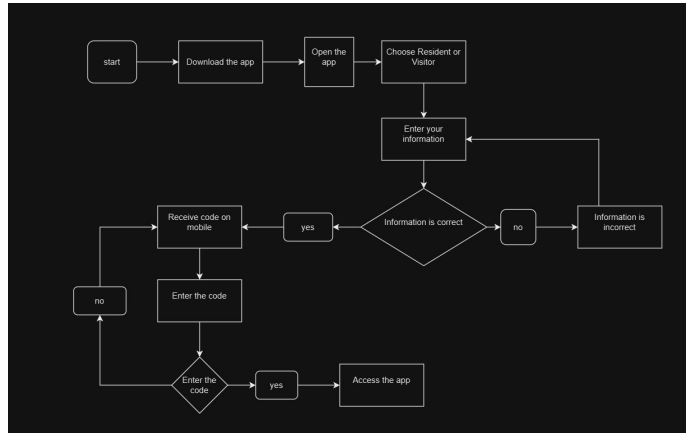
3.2 Flowcharts:

Figure 12: Flowcharts

3.3 Steps to Use the Application

Account Management

Creating an Account   After downloading the Absher app, the user enters information such as their national ID or residency number, date of birth, and phone number. A verification code is sent to the registered phone, after which the user sets a password.

Logging In   Users log in by entering their national ID or residency number and password or using fingerprint authentication.

Traffic Services

Paying Traffic Violations   Users can pay for traffic violations electronically through the SADAD system. After payment, the violation status is updated.
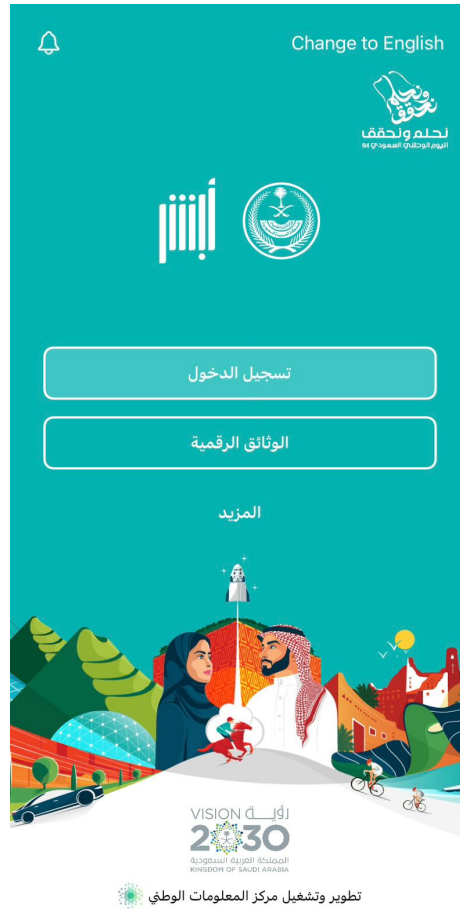
3.4 App interface

Figure 13: Recording interface

Figure 14: Login interface: This is the interface through which the ID or residence number and password are entered in addition to two-factor authentication by text messages
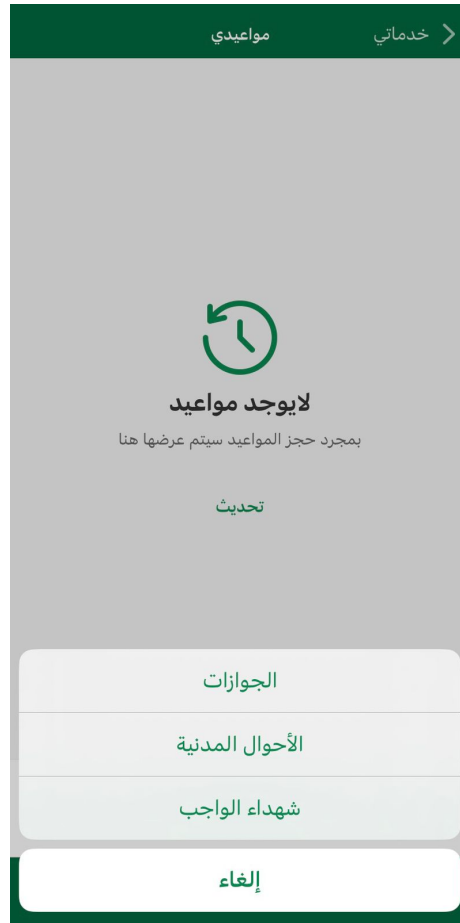
Figure 15: The interface of booking appointments: It allows booking appointments in various entities, including civil status, passports, and traffic to complete transactions in less time.
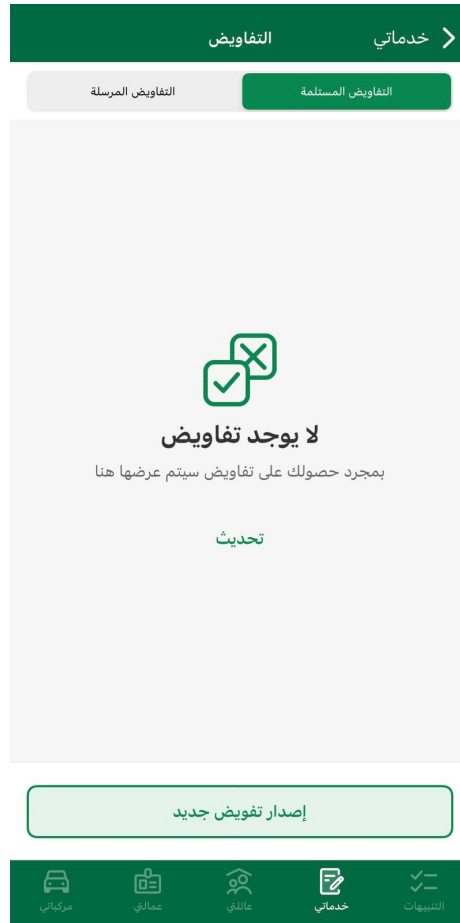
Figure 16: Authorisation management interface: allows you to authorise someone else to complete some transactions on your behalf, including receiving documents

Figure 17: Vehicle interface: It is a customised interface for everything related to your vehicles electronically.
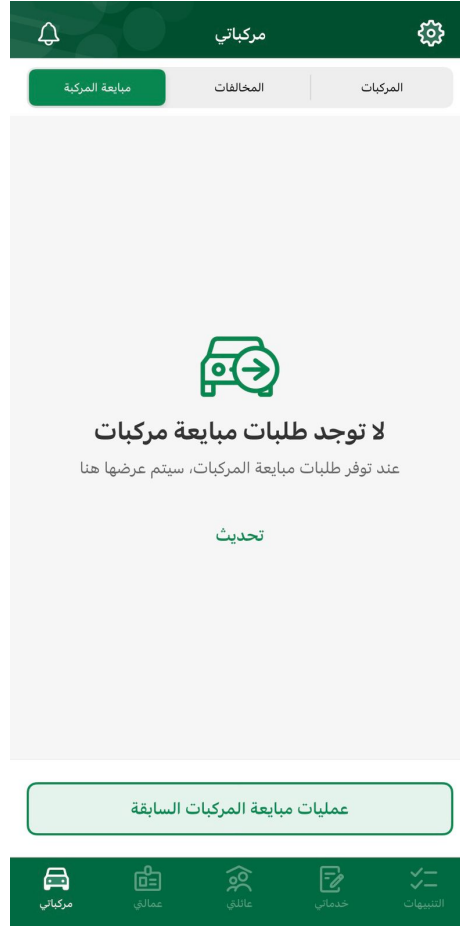
Figure 18: Vehicle sales interface: It is a dedicated interface for the sale and purchase process to be carried out electronically and is considered one of the services that save time and effort for vehicle sellers and buyers.

Figure 19: Traffic violations interface: Allows you to see paid traffic violations, as well as traffic violations registered on your vehicles with fine details such as the type of violation, place and amount required for payment

3.5 System Architectture:

3.5.1 Database:

Absher has a very large and advanced database that works on a strong and secure infrastructure that does not allow anyone to be accessed. It is based on SQL technology.

```
+------------+-------------+------------------------------------------+---------------+
| Service_id | Service_name | Service_type                            | Service_price |
+------------+-------------+------------------------------------------+---------------+
|          1 | Passports   | Issuing a Passport                       |           600 |
|          2 | Reports     | Reporting the loss of the identity card |             0 |
|          3 | Residency   | Renewal the Residency                    |           650 |
+------------+-------------+------------------------------------------+---------------+
```

Figure 20: Some services related to the "Absher" application are presented in this table. It consists of four columns: Serviceid, which is the unique identifier for each service representing the Servicename, Servicetype, which is the type of service chosen, and Serviceprice, which is the price of the service chosen to be completed after payment.
The table includes three services: Serviceid(1) Passport Service, service type includes issuing passports and issuance price 600, Serviceid(2) Reporting Service and service type includes reporting ID card defects, report price 0 Serviceid(3) includes service and accommodation service Renewal type .
Housing and repair price 650

3.5.2 Data Model Structure:

- User Terminal: Collects and transmits data to the gateway server.

- Gateway Server: Filters and forwards relevant data to the application server, ensuring only target data is processed.

3.5.3 Server Infrastructure:

- User Capacity: Absher's server supports millions of users, ensuring seamless access and functionality for both residents and citizens in Saudi Arabia
.

- Data Management: The server architecture is optimized for handling large datasets, which is crucial for conducting health surveys and other e-government services.

3.5.4 Functionality and Services:

- E-Government Services: The server enables a range of services, from health surveys to administrative tasks, showcasing its versatility in public service delivery.

- Usability: Evaluations of Absher's usability indicate that the server's design supports efficient user interactions, enhancing overall user experience.

3.5.5 Key Programming Languages Used in Absher:

- Java: Widely used for building scalable and secure applications, Java's platform independence makes it suitable for the Absher application .

- JavaScript: Essential for creating interactive web interfaces, JavaScript enhances user experience on the Absher platform.

- Python: Known for its simplicity and versatility, Python is often employed for backend development and data processing tasks within applications like Absher.

3.6 Conclusion:

The "Absher" application provides a unified experience to complete government services easily, and is supported by a strong infrastructure and programming languages. The application also ensures data security and ease of use, making it a pioneer in digital transformation in Saudi Arabia.

4   Conclusion:

In this report, we conducted a comprehensive study of the Absher application, which is one of the most important government applications in Saudi Arabia. We began by outlining the summary and introduction, discussing the significance of the application in facilitating government procedures for citizens and residents. We then explained the primary objective of the application, which is to provide easy and fast electronic government services that reduce the costs, time, and effort required to complete transactions. Through the survey, we reviewed user opinions about their experiences with the application and their level of satisfaction, and the results showed that users are largely satisfied with the services provided. We clarified the steps to use the application in a simple manner to facilitate everyone's benefit from it. We also compared the application with similar applications in other countries, highlighting the differences between these applications. Regarding the design, we discussed the ease of use of the application interface and the importance of the data model used in organizing information effectively. In the analysis, we focused on functional requirements, such as providing multiple government services quickly and accurately, and non-functional requirements such as good performance, security, and ease of maintenance. Ultimately, the Absher application is an important tool that significantly facilitates government transactions, and its continuous improvements ensure that it meets users' needs while maintaining a high level of security and effectiveness.

5 References

- Mohammed, A . Reem, F +more 9 .(01 Jan 2023) . Effectiveness of using e-government platform "Absher" as a tool for noncommunicable diseases survey in Saudi Arabia 2019–2020: A cross-sectional study

- Noor , A + more2. (01 Jan 2023). Absher Usability Evaluation Results

- Paul , A ,G. (01 Jan 2023). Programming Languages

- Saul ,R . (01 Jan 2003) .Applications programming

- Gordon , M +more2 . (05 May 1997) . Web Programming Languages Sourcebook

- App Store`https://apps.apple.com/sa/app/%D8%AA%D9%88%D9%83%D9%84%D9%86%D8%A7/id1613539452?l=ar`

- App Store`https://apps.apple.com/sa/app/%D8%AA%D9%88%D9%83%D9%84%D9%86%D8%A7-%D8%B7%D9%88%D8%A7%D8%B1%D8%A6/id1506236754?l=ar`

- App Store`https://apps.apple.com/sa/app/sahel-%D8%B3%D9%87%D9%84/id1581727068?l=ar`

- `https://u.ae/ar-AE/#/`

- `https://services.bahrain.bh/wps/portal/ar/BSP/HomeeServicesPortal`