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Department of Computer Science

" Software Documentation and Technical Writing "

PROJECT About FaceTime Application

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SECTION 1

1.1 INTRODUCTION:

FaceTime is an application that is primarily used on iOS, iPadOS, and macOS devices. It presents a proprietary video and audio calling service developed by Apple. It facilitates users' visual and auditory communication. On the other hand, if an Android or Windows user has the most recent version of Microsoft Edge or Google Chrome, they can join an Apple user's FaceTime call

1.2 Functional requirements:

1.2.1 User requirement:

The application allows the user to communicate with any user from other countries via voice or video calls easily and without the need to hinder.

1.2.2 System requirements:

To use FaceTime effectively, the following features and requirements are required:

1. **Internet connection:** A stable Wi-Fi or cellular data connection is required.
2. **Device compatibility:** The device must meet the minimum system requirements for FaceTime, as mentioned earlier.
3. **Contacts:** To initiate calls, you need contacts with FaceTime-compatible devices or phone numbers/email addresses associated with FaceTime.

1.3 Non-functional requirements:

1. **Performance:** The response time should be when the call is received and started promptly, although it should take no more than a few seconds to receive a response. The communication should also be flawless, with clear audio and high-quality video being used.

2. **Language compatibility:** FaceTime needs to be multilingual, allowing users to utilize it across countries through interfaces tailored to each individual language.

SECTION 2

2.1 INTRODUCTION:

Determine the application's purpose, the problem it solves, and also what needs it addresses, and present a survey about the application. To see the users interest. Then we identify similar programs and compare them.

2.2 Questions about the application:

1. Purpose of The application:

Making phone calls Facilitating visual and audio communication

2. Problems it solves:

It can make external calls directly.

3. Needs it addresses:

FaceTime is a useful tool for handling the intricate processes that a person must perform in order to communicate with others who are far away from him.

2.3 Survey:

Here we present a survey about the FaceTime application

(<https://forms.gle/QDoxCf28use8Y1eU8>)

And the Answers

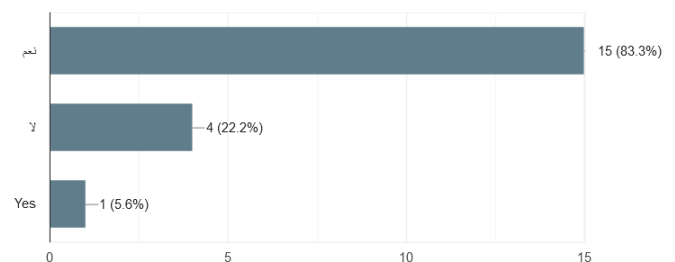
(<https://forms.gle/t9C1Q6rAYJUmdD4LE9>)

In Figure 1 Through the survey we conducted, we found that 83.3% used the application

did not use the application 22.2%

هل سبق واستخدمت برنامج FaceTime ؟

18 رد



ما هو العام لتطبيق FaceTime ؟

Figure 1

18 رد

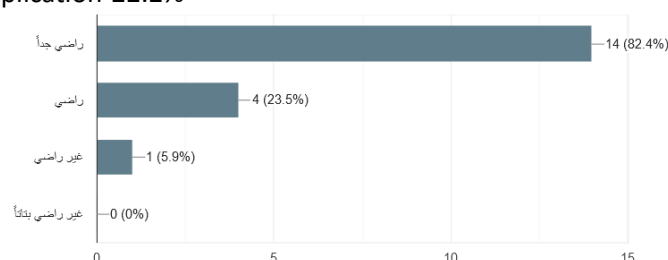


Figure2

responses to a FaceTime survey are displayed in a bar chart in Figure2. 82.4 percent of 17 respondents thought it was "Very Good," while only 23.5% thought it was "Good." In the "Not .Good" category, no ratings were assigned



Figure 3

Figure 3's pie chart demonstrates that, with 94.4% of respondents utilizing the app for phone calls, the majority of users do so primarily for phone calls. Only 5.6% of respondents cited other reasons.

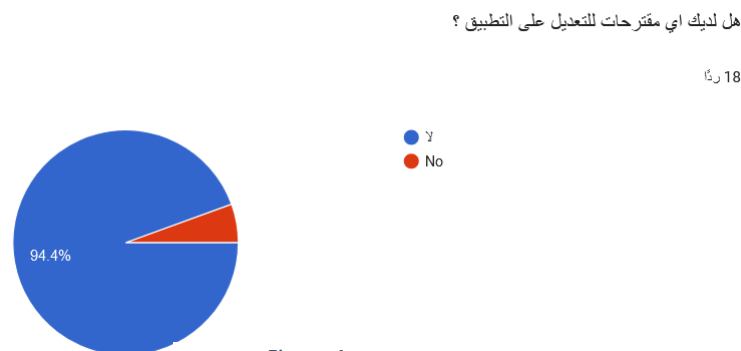


Figure 4

In Figure 4 We added a question if they have any suggestions

And 94.4% do not have any suggestions to modify the application

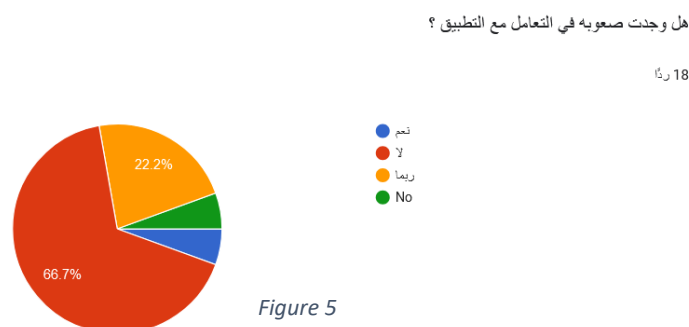


Figure 5

The majority of users (66.7%) felt it difficult to interact with an application, according to a pie chart show in Figure 5. Only 11.1% of respondents replied "No," suggesting that they had a primarily positive experience with the app. A lower percentage, 22.2%, indicated doubt or .mixed sentiments

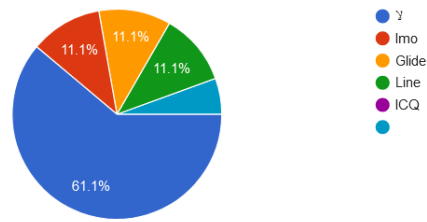


Figure 6

In Figure 6 We also found that 61.1% of the people who filled out the questionnaire did not use any similar application, 11.1% of them used Imo, 11.1% of them used Glide, 11.1% of them used Line, and no one voted for ICQ.

2.4 similar programs and compare:

similar programs: IMO

Comparison between FaceTime and imo:

	FaceTime	imo
Communication	Visual and audio communications	Chats and video and audio communications
Support	FaceTime software has support from iOS as it is produced by the same company	It works on both iOS and Android, so it is more widespread than its counterpart
Protection	This is the protection application, so calls can be fully encrypted between the devices of the invited participants safely without the intervention of any party to spy	Its security is somewhat weak. Conversations are often unencrypted, so encryption is considered a disadvantage of application.
Dealing with the application	The imo program requires users to create their own accounts for communication with contacts, requiring both contacts to have an account on the same application.	All users must be using the iOS system, and it is not necessary to create a new account, but rather use the contacts on the device based on the iOS system, so they can communicate directly.

SECTION 3

3.1 INTRODUCTION:

In this third section, In order to clarify the functional requirements and system activity's, we will show you a series of required models including the activity diagram, and sequence diagram and also we will show you the System architecture for the application.

.3.2 SYSTEM ARCHITECTURE:

Original: "The company has decided to implement a new policy
".regarding vacation time

Paraphrased: "A new vacation time policy is being implemented by
:the company." Database utilized

FaceTime, created by Apple, is a video and audio communication application that does not require external databases such as SQL or NoSQL. Alternatively, Apple might opt to utilize internal storage solutions like iCloud for saving certain data such as call histories and settings. Nonetheless, this is not classified as a conventional .database similar to the ones utilized in various applications

After the intense workout, she felt extremely tired and sore.
:Servers on which it depends

FaceTime depends on Apple's servers for directing calls. In some instances, like when devices are close to each other, Peer-to-Peer technology allows for direct data transfer between devices,
.decreasing reliance on centralized servers

The bicycle race ended with the same winner as last year. Python

Rewrite the text using the same input language and with the same
:number of words

.Python is the programming language used in this project

Apple primarily utilizes Objective-C and Swift for developing system applications, such as FaceTime. Moreover, C++ is
.employed in certain fundamental system elements

The cat chased the mouse around the house. Structure of
.FaceTime's data

:The FaceTime data model can be outlined in the following manner

User: Includes details about the individual like their name, email
.address, and contact number

Phone call: Contains information such as the time and date of •
.the call, length of the call, and the person on the other end

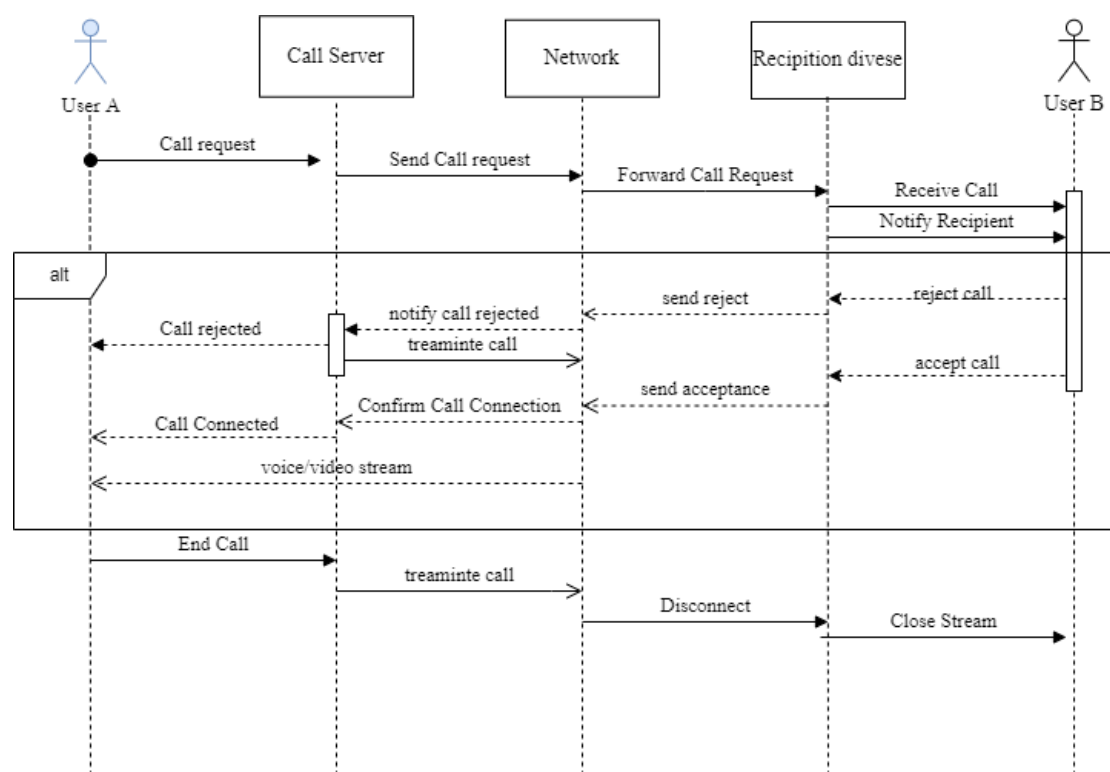
Connection: Involves technical specifics regarding the •
connection, including call type (video or audio) and call status
.(successful or failed)

Furthermore, FaceTime utilizes sophisticated encryption methods
to guarantee the protection and confidentiality of calls.

3.3 APPLICATION DIAGRAMS:

3.3.1. Sequence diagram:

A sequence diagram was created to illustrate the process of making a FaceTime call. The diagram consists of three components: User A and User B, the Call Server, and the FaceTime database. The process begins with a contact request, where User A sends a connection request to User B. User B then receives the request and can accept or reject the application. If the call is rejected, a rejection notice is sent to User A, and the call ends. If accepted, an acceptance notice is sent. After accepting the call, the contact between users is confirmed, and the call starts streaming audio/video. The call is terminated when the flow is closed, and the call status is updated in the FaceTime database.



2. Activity diagram:

First: Check for an internet connection.

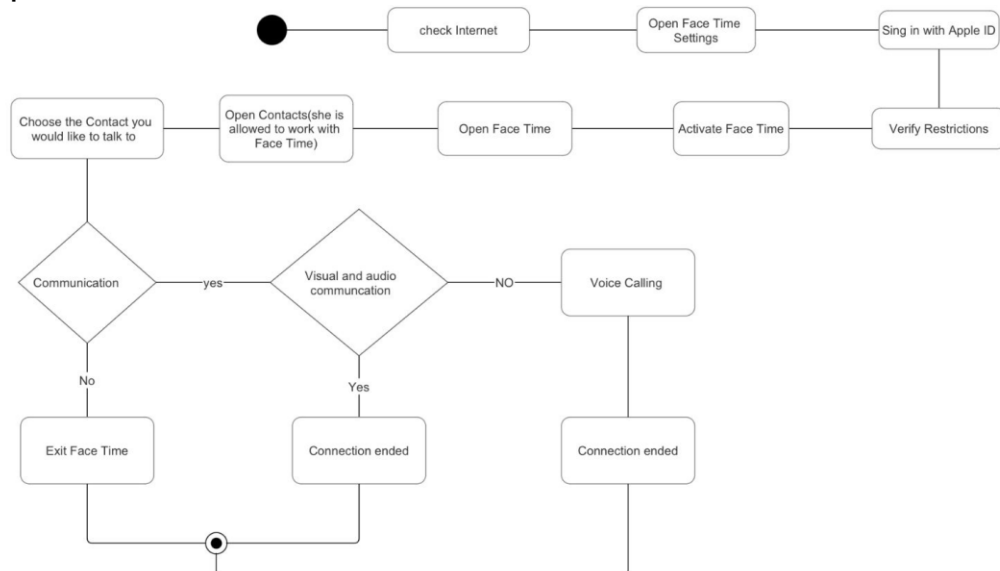
Second: Open Face Time settings. Third: Log in with Apple ID.

Fourth: Check restrictions. Fifth: Activate Face Time. Sixth: Return to Face Time. Seventh: Open Contacts. Eighth: Choose Contacts.

Ninth: Does he want to call? ,

Tenth: Does he want the call to be visual and audio together or not?

If he wants to call visual and audio together, he completes the call and then ends. Eleventh: No, then he wants to call audio only and completes the call and then ends.



4. Conclusion

With seamless cross-device connectivity, FaceTime is a powerful audio and video communication tool created exclusively for Apple consumers. It resolves issues with communication by offering low-latency, high-quality calls. In addition, the program enhances user experience and privacy by providing strict security measures and linguistic support. FaceTime is commended for being a highly successful communication tool, despite its limited cross-platform compatibility. Its popularity might be expanded with more improvements.

5. References

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6. Appendices:

6.1 Github

<https://github.com/Fatimabl434/Face-Time>

"In this file, we used apple's style."