diploma

by S P

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Al-Kitaab

A thesis submitted for the degree of
Bachelor in Information Systems and Computer Science
(degree code: 6B06101, 6B06102))

Kaskelen, 2021

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Abstract

The dissertation discusses the impact of new technologies on Islam, the benefits of Islam and how Islam is being automated. The use of new technologies is making life easier for Muslims. For example, mobile phones allow Muslims to determine the time of prayer, the direction of the qibla, and recite the Quran anywhere, anytime. We believe that one of such IT products, Al-Kitaab, is also benefiting Islam and the Muslim world. We hope that new technologies will be more useful in the future and open up many opportunities.

Аңдатпа

Диссертациялық жұмыста жаңа технологиялардың исламға әсері , исламға қандай пайдасы бар және де ислам қалай автоматтандырылып жатқаны туралы. Жаңа технологияларды пайдалану мұсылмандар өмірін жеңілдетіп жатыр. Мысалы ұялы телефон құрылғылары мұсылмандарға кез келген жерде , кез келген уақытта намаз уақытын анықтау, құбыла бағытын анықтау және де кез келген жерде құран оқу секілді мүмкіндіктер беріп жатыр. Сондай IT өнімдердің бірі Al-Kitaab қосымшасы да исламға, мұсылман әлеміне өз пайдасын тигізіп жатыр деп сенеміз. Жаңа технологиялар болашақта қазіргіден де көбірек пайдасын тигізеді және де көптеген мүмкіншіліктерге жол ашады деген үміттеміз.

Аннотация

В диссертации обсуждается влияние новых технологий на ислам, преимущества ислама и то, как ислам автоматизируется. Использование новых технологий облегчает жизнь мусульманам. Например, мобильные телефоны позволяют мусульманам определять время молитвы, направление киблы и читать Коран в любом месте и в любое время. Мы считаем, что один из таких ИТ-продуктов, Аль-Китааб, также приносит пользу исламу и мусульманскому миру. Мы надеемся, что новые технологии будут более полезными в будущем и откроют много возможностей.

Contents

Chapter 1

Introduction

1.1 Motivation

If a human looks around and meditates about the world, and asks questions from himself how the world was created, how it works so perfectly, his soul pursues something unusual. And in our lives we find that thing in religion.

In our lives we have a lot of types of religion with followers. Each religion has its own faith. Religion is the thing that regulates the life of people, gives spiritual support to our souls in different situations, and guides us to happiness.

In the world, at this time we have a lot of religions. The main three of them with a lot of followers and with big history are Islam,Christianity,Buddhism. Three of these religions have their features,something that makes people follow this religion. Religion for which i want to say is the Islam. Islam from arabic means "peace". Religion Islam differs from other religions specially.

For example in Islam, they do not say that other religions not true, followers of Islam respect other religions. While other religions admit to saying words like that. In first look, Islam nowadays look like cruel, old, like this bad words regarding religion. But if a person is interested in learning, his thoughts will change. In Islam, person believe to Creator, and believe to life after death. Islam makes followers life regular, and as human social creator Islam regulates relationship between people, and one of the main advantage of Islam person shares with all good things with others.

Nowadays the main problem of humanity is themselves. Problems like war, losing humaneness, losing human costs or forget that we can not give cost to humans. In short, if we search main problems in world, we see that big problems related to humans. And one cause to kind of this problems, today's demand for

technology. People became addicted to technology. Keep relationship between people became hard because of people began to live more on social networks, compared to true life.

So, our stimulus to do this project, time where technology not separable from people life and where people have problems in their soul, which is could be solved by Islam, we decided to make together technology and Islam. In other word, we decided to make application to smartphones, with the help of which people can be know about Islam and keep Islam.

1.2 Aims and Objectives

Our aim is to be helpful for humanity and give something good for people. So because of that, we thought and decided to make an application that helps people to solve social problems. Solution we find in Islam. Because of that, we started making this application.

Why Islam your may ask? Let me consider some reasons:

First in Islam, as we consider Islam consider person life from birth to death. For example, in Islam consider how child need relate to parents, how person need to relate other people. All these things are written in the holy book "The Koran". All we need to read this book, or though read the meaning. Secondly, we have life of prophet Muhammad , who is the number person who lives in this world, number one person in book "100 great people". Life of this person, full of wonders made by this person. But if you read the life of this person, his life is full of troubles, which we can not say by words. In his life, as we look, his relationship with society is the sample to others, his relationship with people who made him do a lot of types of bad things is the real sample. His kindness to repressers, charity to needy people and like this a lot of things we can say is the sample.

Thirdly, we have a companions which follows prophet Muhammad, whose life full of sample to as, how to live in peace and mutual respect.

We consider reasons, why we decided to make application related to Islam

1.3 Thesis Outline

Our project structure, in the first part, we consider and say about stimulus to do this project and our aims and goals for doing this project. In the second part

We consider the decision or in other word why we need to connect IT and religion nowadays. And also industrial state of the religions applications in our country. And also methods of these applications. In the fourth part, we review the particles of our project. We will do analysis about connection between person and religion, consider problems and exact solutions. In the last chapter, we will talk about our application fully and the process of making an application. Last, we make a conclusion. We will say about the full work we do and our further ideas about this application.

Chapter 2

IT sphere of religion

2.1   What is religion?

We can not give definition to the word religion with several words or sentences. Word religion is a wide sensely concept that has a large history. Religion, for humans, is the connection of something supreme, which people refer to, pray, ask and live for. It is additionally commonly respected as consisting of the way individuals bargain with extreme concerns almost their lives and their destiny after passing. Numerous individuals offer definitions without much information of the wide run of devout marvels and the numerous distinctive social appearances of religion.

Religion on one side is a path from birth to death, which helps humans live in happiness. And also one thing to add, path which helps a person to find himself in this life or in another word path, which helps find a destination in this world. As we see, in the world all things have a self-meaning or destination, or role. For example, trees and flowers perform the function of air cleaner, or to be exact change carbon gas to oxygen gas, with the help of which people breathe. This process is called photosynthesis. This process needs a sun to make it happen. The sun is a hot plasma, source of the energy, or big lamp, which shines approximately by research 4.5 billion years ago. And one thing to note: the sun burns by itself. Scientists can not explain this phenomenon. And also if sun's distance will change from nows, if get closer earth will heated to degree where all live beings die, and like that if get further earth will freeze. From these conclusions, we take note that all living beings are related to each other. And there is something that we can not explain, or there is something mysterious. So in religions, it is explained as God. In different religions, understanding of God is different. In the world, nowadays we have lots of religions. About 4500 number of religions.The main three of them with a lot of followers and with big history are Islam, Christianity, Buddhism. As

we said in first chapter, when we consider Islam is the most systematic, practical, and more taking account people relationship, their soul state.

2.2   IT world and Religion

In the current time of digitalization, when every person is somehow connected with IT, it is impossible to be far from IT. Even the most distant entrepreneurs now associate their business with digitalization. In the big IT world, there are a lot of directions that simplify people's lives and provide more opportunities for moving forward. Every day, a lot of applications enter the world market in order to help people and also make money with it. There are many other examples when the creator is not looking for personal benefit in this. When people are driven by good thoughts and ideas, he tries to improve or come up with a product that will help the people free of charge.

The religion that came to us in the distant past, when there were no computers, no Internet, even a telephone, is also gradually and confidently entering the world IT market. More and more applications appear where each user can upgrade spiritually. There are a lot of apps like a reminder that constantly monitor and improve your knowledge.

In a world where there are about 2 billion Muslims, it would not be logical to have an application that helps them and makes their life easier. It would be foolish not to have electronic versions of sacred writings. When even religion itself calls you to do good and good deeds, having knowledge in IT, you simply cannot but do something for it. Since our country was and will be very closely related to Islam, we decided to create an application for the people.

Having decided to connect the world of religion and the world of IT, we very diligently analyzed other analog applications. Taking all the good from them and adding our ideas, we started developing. Since religion is a very sensitive topic, we first improved our knowledge, collected a lot of information, and only then started developing. There were a lot of ideas, but having collected everything in one, we came to a common conclusion with the team.

2.3 Industry of Religion Apps

In this chapter we consider applications or other sources of religional applications. In our time, time of technology, it is easy to find any needed information on the internet. But one thing we note that all things, information on the internet may not be true. So because of that, people need to analyze all things from the internet like source, or content. Especially, when the topic regards to religional things, we need to be careful. But, nowadays, there are organizations,or the ministry that are covering this topic. For example, in our country Kazakhstan, we have a ministry named "The ministry of Civil Religions", which tests all religional things in our republic. As we are making islamic application, in our case organization called "КМДБ", which covers all things that related to islam. In the world, at this a lot of islamic applications, that give informations about islam. In our country, also we have various applications related to islam. The most known applications are Sajda.kz, Quran.kz, IslamApp, etc.

About these applications, exactly Sajda.kz and Quran.kz these applications are used not only in Kazakhstan, but also in other parts of the world. Let's consider the features of these applications.

First, Sajda.kz is a comfortable application with navigation, dates, compass, zikr which means holy words in islam, that when person says it, it effects to soul, holy book Kuran, live stream. This application is comfortable for making navigation. When humans travel, it is easy to find directions for praying, and time in a new place. Also themes of application are nice, pleasing to the eye. On advantage, the application has a table of praying times for one month forward. One thing we need to note is zikr. In application there are a lot of zikr. Also, one privilege is having a general zikr, which will be done by all users of this application. But, they do not have any information source like books, or articles. Also reading a Kuran with this application causes difficulty. Because of a lot of functionalities, and pages are not divided, and for reading there are some inconveniences. I think we need to add some books, some new functions. Other things are well in application, generally application is good for use.

Second, the application Quran.kz is also comfortable, with its own pros and cons. Advantages of this application are dividing each function to sections, also colors are chosen well for reading, pleasing to eyes. Also having a books section with various books is a very big advantage. But, there are two sections: time and finding direction are uncomfortable. For example, section time, there are a lot of colors and they are not compatible with each other. And also there are a lot of badges that are not divided into particles, badges are all stands together. Next, finding the directions section has some uncomfortability in design, also for

use, it is not clear how to use it. Generally application is well for using. Reading Kuran, and books with this application is good. But have some minuses, like color compatibility. And sometimes applications have troubles, when using it.

2.4   Type of religion apps and their methods

Nowadays in smartphones, there are lots of religional applications with various methods. One type is a book only, which has several parts of one big volume. These kinds of applications are not so beneficial, because of the boredom of reading. Next, audio format applications, which listen to the holy book Kuran, but these applications are also not beneficial, because of only one functionality. Also, we have applications with books, finding direction, zikr, also with audio systems. These kind of applications, are well and beneficial for people, but in a lots of this applications there are problems with colour choosing, with placement functions.

About methods, in applications there are lots of methods, like gamification, audio and video formats, visualization, question and answer format. All of this methods are good for learning something new.

Chapter 3

Detail of the project

3.1 Research

First of all, before starting the project we decided to make consultation with the team, and other developers about our project. And after the consultation we did some small research.

Like:

First, our goal is to make this project. As we note, our main goal is in this way to help people, why do people need the project, and like this.

Second, who will use our application, can our application be beneficial for users, what is our application feature. How the project should be realized, what technologies, services, etc. to be connected, What items the project should contest with, what great solutions exist in this area and what can be progressed in them.

First, through the research, we find approximately the number of users of our application. Each follower of islam, and people who will follow in near future. After the research we approximately see numbers, and we understand more or less how to move forward in the future.

Then we as a team moved to the phase of developing, before that we examined this kind of application. Every member looks at several applications and writes down advantages and disadvantages, errors of the service we use.

Second, we needed to add some new features to our application for being beneficial to others. For this we get advantages of applications like Sajda.kz, Quran.kz. And add these two applications features for our application. For example, from Sajda.kz we get design,praying times,navigation,and zikr functions. And develop these functions by yourself. Users can add zikr by itself. One main thing we need to note in our application is adding the property of reading Kuran

called tajweed for android. We search a lot and do not find tajweed for android applications, which is necessary for Kuran. So, we add this property to our application. Tajweed properties differ by colors in Kuran.

Third, we decided to make our project for android smartphones.Which is used by a lot of people around the world.

Fourth, our mission is to give high quality products to people. We try to give a application that can show true islam for people with interesting methods. Further, we need to add a new things, like small articles that shows beauty of islam.

3.2 Problems

In the process of making a project, we have several problems.Like how to build our application, how to give it to people.What kind of features would it have?

So, a solution we try to find in applications that already exists. As we said before, we solve these problems by collecting advantages of different applications.

And the main feature of our application is the adding property of reading named tajweed Kuran. Which was not before in android smartphones. 3.3 Exact decisions

So from time to time, we start to search solutions to getting new features to our application.And after the consultation we decided to make an application, which makes together applications like Sajda.kz and Quran.kz. By getting advantages of these two applications.

First, from Sajda.kz we get navigation functions, praying times functions and also a schedule of praying times for one month forward. Add on the zikr section, we get this section, and add one new function like a user can add zikr by itself. And also design of this application, we get some particles we liked and added to our application.

Second, from Quran.kz we get the two sections. First is the holy book Kuran. We decided to use a combination in Quran.kz also for our application. Second is the adding books section.
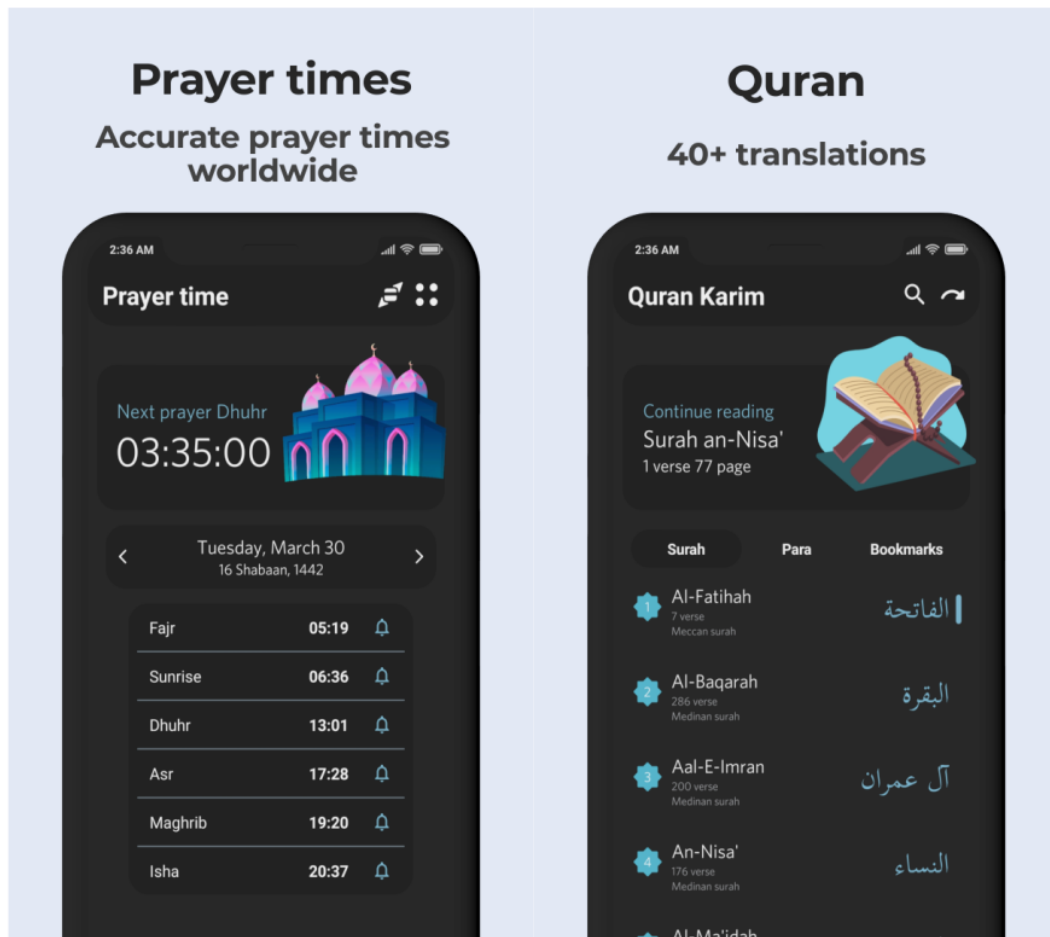
3.3   Exact decision

In the end, we want to say that, we add new features to application for android. But it is not enough, we need to make our application more broadly, with a lot of functions. Which could give the soul of the religion to users.

Chapter 4

Al-Kitaab App

4.1 Our Application

Our application called "Al-Kitaab" . "Al-Kitab" deciphers as "book" , which implies "assemlbe in one place, make it obligatory, have the proper to oversee."
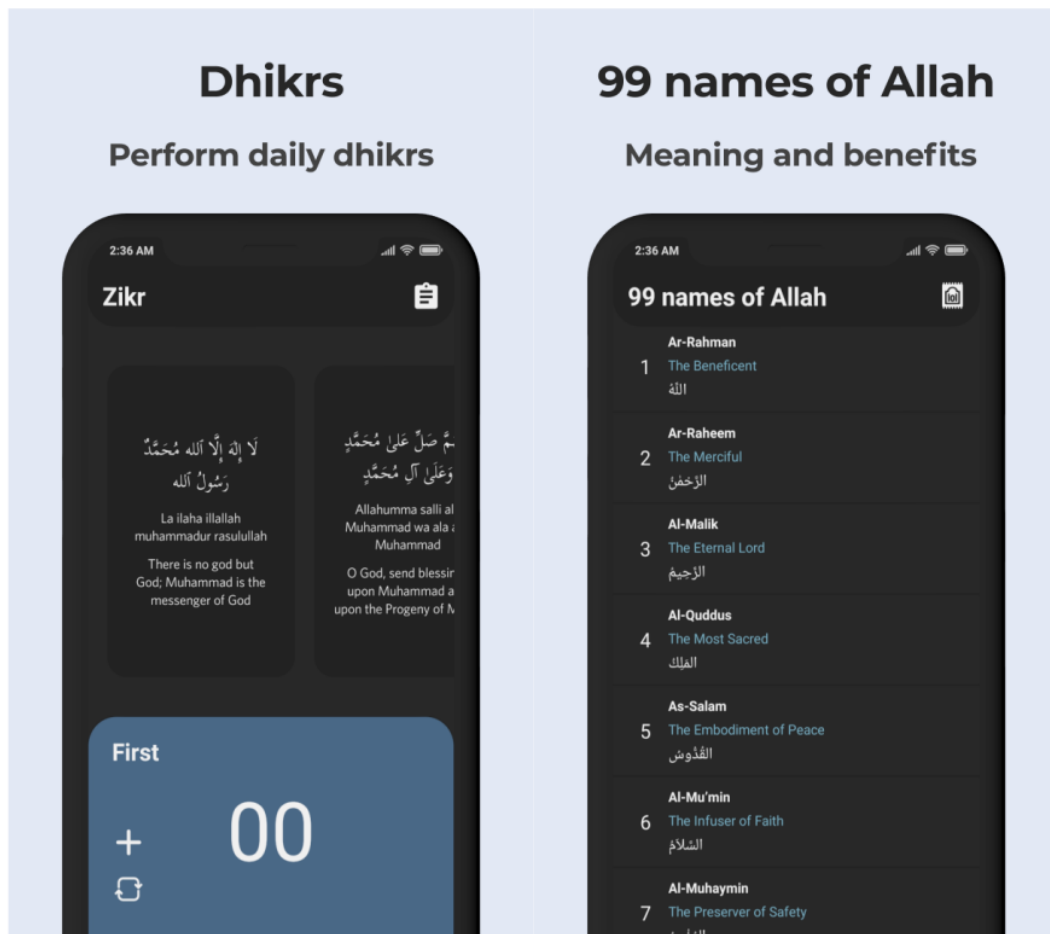
Namaz time

- Have get to to precise supplication times no matter what nation, city or town you're from

- Get notices (adhan)

- Checking the remaining time until the following prayer
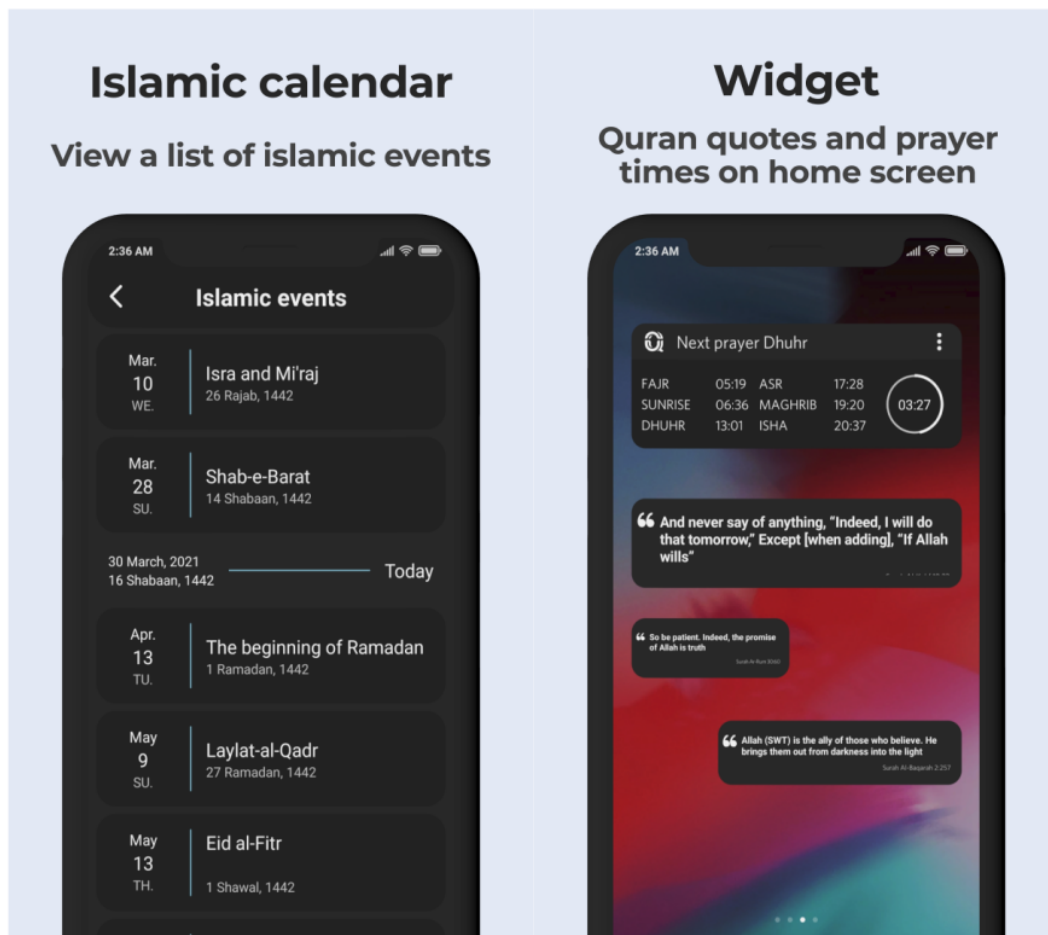
- Manual time setting

Adhan

- Customize supplication notices with alleviating muazzin voices or other framework ringtones

- Set a notice time to get ready for the up and coming supplication

Koran

- Studied the Respectable Quran with translation and transcription

- Content search

- Celebrate your favorite verses

- Include verses to bookmarks

- Perused the Quran by surah or page by page

- Final read

- Alter the measure of the content to which you'd like to read

- Quick looking over: rapidly explore through the verses

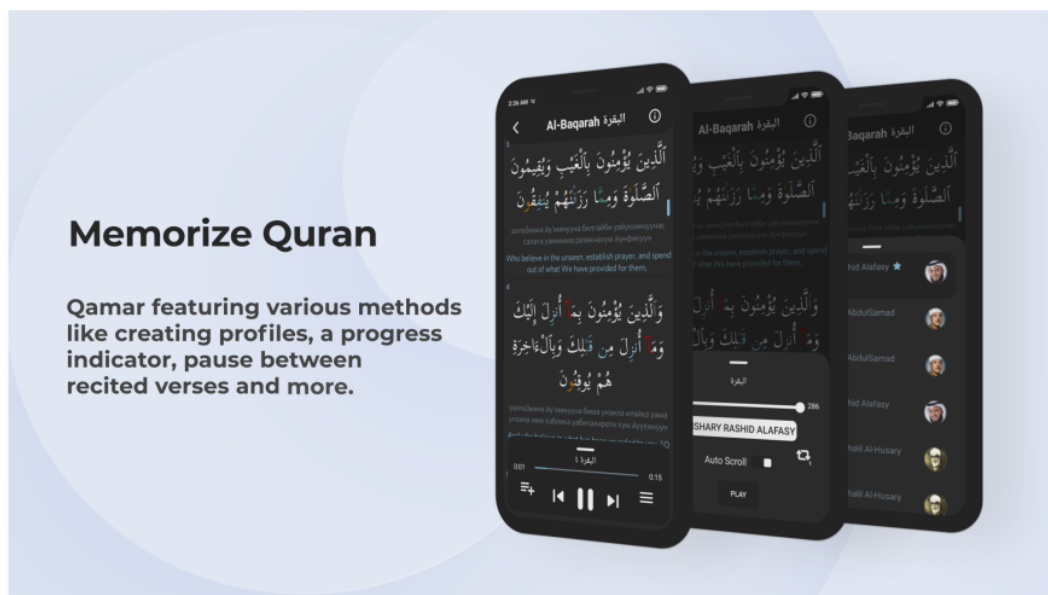- Color-coded Tajweed with the same color execution as iQuran

Quran by heart

- MP3 sound of the total Quran in 30 Juz or 114 Surah without limits

- Numerous Perusers 15+ Perusers (accessible offline)

- Peruser choices: Sheik Mishari Al Afasi, Sheik Husari (Muallim), Sheik Ayman Suwaid, Sheik Abdur Rahman As-Sudais, Sheik Abdul Basit Mujawad and numerous others

- Solid sound framework with rehash gather verses to assist you memorize the Quran

Month to month Quran Perusing Statistics

- Set a objective for your reading

- Chain between dates

- Analyze your performance

- Track your insights

Dhikr

- Keep in mind Allah often

- Perusing tasbih

- Track and spare your dhikrs

- Helpful counter

Memorize Quran

Qamar featuring various methods like creating profiles, a progress indicator, pause between recited verses and more.

Widget

- Motivational cites from the Quran and supplication times on the domestic screen

- Motivational Cites (Gadget) - Appears a arbitrary cite from over 200+ cites carefully chosen and included within the app
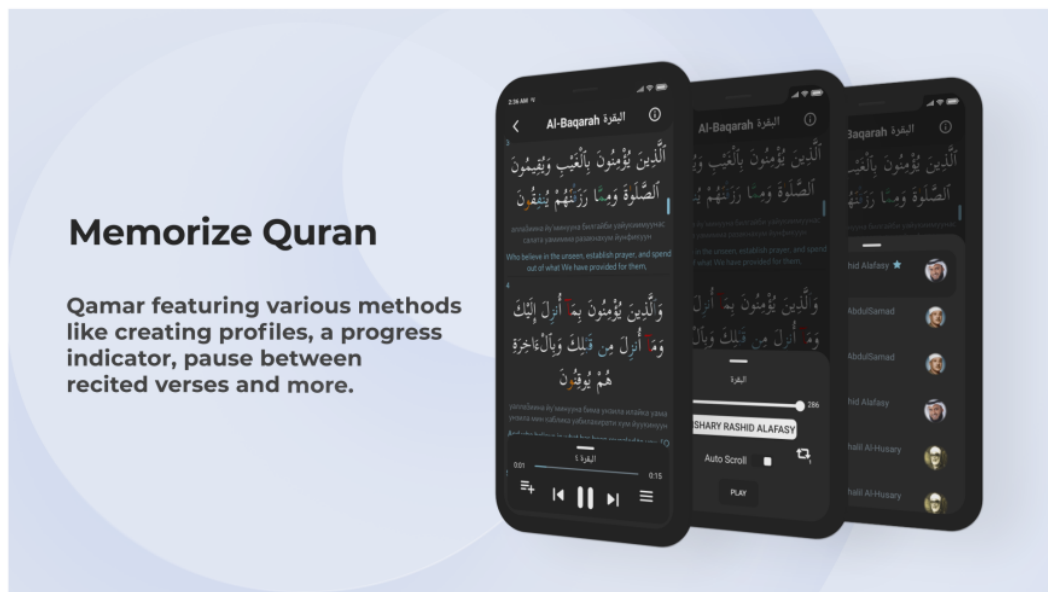
- Different sorts of widgets

Qibla

- Have you moved to another city or fair do not know where Qibla is? Do not stress, our enlivened compass makes a difference you discover the correct direction.

- See heading to Heavenly Kaaba

Month to month calendar

- Need to know supplication times for the following week or month?

- See your month to month calendar

99 Names of Allah

- Examined all names in Arabic, Russian with meanings

- Translation of the wonderful names of Allah

Memorize Quran

Qamar featuring various methods like creating profiles, a progress indicator, pause between recited verses and more.

Islamic calendar

- Do not miss any of the imperative Islamic calendar days

- List of Islamic occasions for any year

- Hijri redress setting will permit you to customize dates

4.2   Development of our Application

Most Muslims in Kazakhstan use Quran.kz or Sajda.kz applications. Then we were motivated to combine the advantages of these two applications to create the most powerful and functional religious application in Kazakhstan. We looked at the color combinations in these two apps, the order in which the features are arranged, and what other features are available, as well as many other religious apps in the Play Market. We used that information in our application.

The features of the first application are important.
We opened two applications and looked at their functions.
We have published a list of functions.

List of functions from Sajda.kz application:

Prayer time

Monthly prayer schedule

Counting zikr

The Koran

Night mode

List of functions from Quran.kz application:

Divide the Qur'an into pages, hundreds

Qibla

Bookmark

Then we decided where these functions would be located inside the application. The design of the application is also important. If the design is bad, do not use any functional application if the colors are bad design. To do this, we studied what colors look beautiful, what colors hurt the eyes, what colors do not hurt the eyes and what colors to use for night mode. Then we started to separate all the tasks.

4.3   Our stack(Android,DataBAse)

We decided to create the application on the Android platform now. We opened the first project from Android Studio. The tools we use are SQLite Database, APIs for prayer times, and calculation methods, Quranic verses (reliable), translations, and Qibla directions.

Basically, there are three different ways to store information when creating an application on the Android platform. They are in the form of Shared Preference, SQLite Database, file.

SQLite Database is a framework that allows you to use the capabilities of SQL and help store information as much as possible. Here you can save small information in tabular form.

SQLite Database also has limited space, it is impossible to store unlimited information. You can insert, delete, retrieve, and update information in a table. You can also update the table. The information is also stored in JSON format. It is very easy and convenient to build, it does not cause much difficulty. If the data you are saving is a variable, you should save it to Shared Preference, and if you want to save the data in tabular form, you should save it to SQLite Database. If the data is not protected, it can be viewed from among the files.

Shared Preference is a tool for storing variables within an application. It does not require much space and the saved variables are protected, you can not see them in "My files". This is only disabled if the application is disabled from the mobile phone. Here you need to store SQLite Database, which is inefficient to store a lot of data, which you want to save in tabular form.

Save as a file is a way to save data if it is in a file (for example, mp3, png, jpeg, pdf, word, etc.). We can't save files to SQLite Database or Shared Preference, because you can only store variables there, and you can't save variables as a file.

One of the most difficult parts of our app is the prayer time.

They are based on three things when calculating the time of prayer

time zone

altitude above sea level

calculation method (mashab)

A method of calculating the time divided by 24 along the meridian line of the

Earth's surface. To determine it, it is enough to look at a specially drawn table, which depends on the location of the person, for example, Kazakhstan itself is located on two belts. The central and eastern part of Kazakhstan is located at +6 and the western part at +5. So it is very important.

The importance of the height of the earth above sea level (Altitude) depends on the proximity of man to the sun. For example, for a person standing at the foot of the mountain, another time of prayer has come at sunset, and for a person standing at the top of a mountain, when he is still seeing the sun, it is considered that the time for prayer has not come. That is why it is important to identify and record it.

The calculation of the time of prayer is different in each sect, so it was necessary to take this into account.

For example, in the Hanafi school and the Shafi'i school, the times of the afternoon prayer are different. In the Hanafi Madhhab, the time of Asr prayer is considered to have entered if the shadow of an object is twice as long as itself, and in the Shafi'i Madhhab, it is considered to have entered the time of Asr prayer if the shadow of an object is twice as long. Since prayer is in the eyes of Muslims, we should be careful about prayer times.

Then we obtained the APIs of prayer times from reliable sources by comparing them, including the method of calculation of the Spiritual Administration of Muslims of Kazakhstan.

Since the Qur'an is the holiest book for Muslims, it was important to get it from the most reliable source. Among our applications, the Quran has the advantage over other applications, in our application there is an opportunity to read the Quran in Tajweed. Painted in different colors according to different rules. There are seven different ways to read the Qur'an. The Tajwid rules of our application are based on "Asym Kyragaty".

Our application has 37 different translations, including two Kazakh translations. It is a popular translation of the Quran in different languages. Basically, you have to be careful when translating the Quran. This is because it is necessary to take into account the meaning of the Qur'an and to be an expert in the Arabic language. We have two popular translations in Kazakhstan. The first was translated by Khalifa Altai and the second by Kokzhiek Publishing House. Khalifa Altai translated the Koran into Kazakh in 1991 and distributed 800,000 copies to Fahd Publishing House.
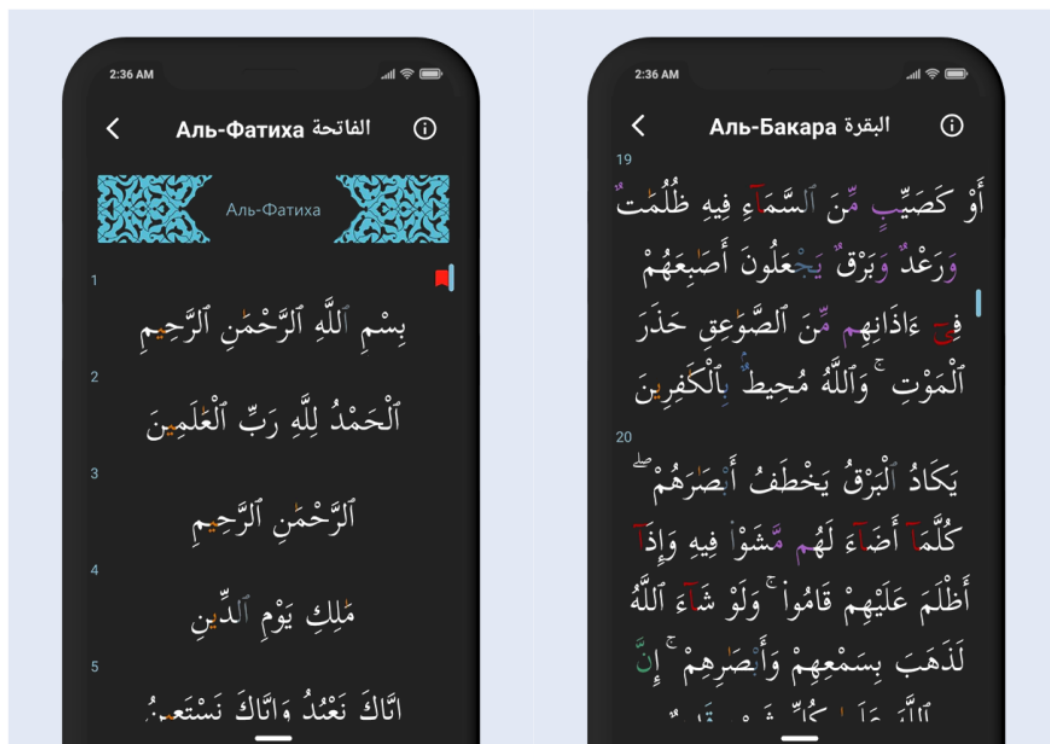
4.4   Features of application

Our application has several advantages over other applications. The main advantage is the ability to recite the Quran in Tajweed.

The word Tajweed, translated from Arabic, means to beautify, to make better, and in Islam, it means a set of rules for reading the Qur'an aloud in accordance with all the rules.

The Quran is the holy book of Muslims. The Quran is very important in the life of Muslims. Since the Qur'an is sacred, it is important to read it in accordance with the rules. Correct reading of the Qur'an is enjoined in the Qur'an, and it is obligatory to read the Qur'an in accordance with the rules

In our appendix, the Quran is painted in different colors in accordance with the rules of Tajweed. You can see it in the picture below. There are rules for stretching (stretching two, four, six times), in some cases changing the position of the letters, switching from one letter to another, missing some letters, stopping rules, verses of prostration, and so on.

The verse of prostration means that the person who recites such verses in the Qur'an is obliged to prostrate. The verse of prostration is found in 14 places in the Qur'an.

Chapter 5

Conclusion

So, in the end, our goal of making this project is to help people. It is a our thoughts that by religion, in religion by Islam, which main idea is void to goodness and ban badness. We belief that by the true Islam people can solve their social life problems. And we do not say that by only this application, human problems will be solved. It is the only thing that what we could do at this time.

diploma