

**MINISTRY OF EDUCATION AND SCIENCE OF THE REPUBLIC OF  
KAZAKHSTAN**

**“Kazakh-British Technical University” JSC  
Faculty of Information Technology  
Speciality 5B070300 “Information Systems”**

**ADMITTED TO DEFENCE**  
Dean of FIT,  
Associate Professor, PhD  
\_\_\_\_\_ A.Bisembayev  
“ ” \_\_\_\_\_ 2022

**EXPLANATORY NOTE  
TO GRADUATION PROJECT (work)**

**Theme: “IT internship searching platform”**

**Author:**

\_\_\_\_\_ S. Adambekov

**Co-authors:**

\_\_\_\_\_ A. Ismagulova

\_\_\_\_\_ I. Zinollin

\_\_\_\_\_ A. Bekeshov

“ ” \_\_\_\_\_ 2022

**Major:**

5B070300 “Information Systems

**Supervisor:**

**Senior Lector**

\_\_\_\_\_ V. Popov

“ ” \_\_\_\_\_ 2022

**Norms Compliance Monitor**

\_\_\_\_\_ A. Omarova

“ ” \_\_\_\_\_ 2022

**Almaty, 2022**

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**DIPLOMA PROJECT ASSIGNMENT**

Students: Ismagulova Albina, Adambekov Sanzhar, Bekeshov Ayan, Zinollin Ilyas

Project title: “IT internship searching platform”

Approved by the KBTU order: № \_\_\_\_\_ dated “ \_\_\_\_ ” \_\_\_\_\_

Submission deadline: \_\_\_\_\_

List of issues addressed in the diploma project or its brief content:

1. Literature review
2. Business idea
3. Development of MVP

List of graphics (with precise indication of obligatory drawings):

1. Tables (3)
2. Figures (20)
- 3.

Consultations regarding the project with indication of respective reasons:

Section	Consultant (academic degree, title)	Timeline	Signature
Introductory consultation	Senior Lector <b>V. Popov</b>	05.02.2022	

### DIPLOMA PROJECT WORK SCHEDULE

Sections, issues addressed	Submission deadline	Notes
Determination of the topic of the thesis	15.02.2022 – 30.02.2022	
Social issue analysis	01.03.2022 – 20.03.2022	
UX/UI design	10.03.2022 – 20.03.2022	
Backend development	10.03.2022 – 30.03.2022	
Frontend development	25.03.2022 – 10.04.2022	
Faults correction	10.04.2022 – 01.06.2022	
Writing thesis	09.05.2022 – 16.05.2022	

Dean of Faculty \_\_\_\_\_ A. Bisembayev  
(signature)

Project Supervisor \_\_\_\_\_ V. Popov  
(signature)

Author \_\_\_\_\_ S. Adambekov  
(signature)

Co-authors \_\_\_\_\_ A. Ismagulova  
(signature)

\_\_\_\_\_ I. Zinollin  
(signature)

\_\_\_\_\_ A. Bekeshov  
(signature)

Date « \_\_\_\_ » \_\_\_\_\_ 2022

### Project sheet

№	Format	Designation	Denomination	Quantity	Note
1	A4		Explanatory note	1	43 pages
2	.pdf		Electronic copy of the diploma project	1	
3	.pdf		Presentation File	1	

## **ABSTRACT**

This diploma project is devoted to the development of the Platform for the search for internships in IT.

The urgency of the topic is due to the worsening situation of youth unemployment. In our time, one of the difficulties faced by students and graduates of universities is the search for their first job. This situation is very urgent now in Kazakhstan and in the CIS as a whole. And it occurs for several reasons, the solutions of which can lead to a decrease in the percentage of employment of graduates in the specialty.

Over the past few years, many new platforms and solutions have emerged that help young professionals find jobs. But despite this, the issue of unemployment is still relevant in our harsh reality and new solutions are taking place.

Our project - WexUp - is an IT internship searching platform based on the idea that emerged from the study of market trends related to the already accepted practices of employers and HR internship teams, and with trends in technology.

In order to identify a possible solution to these problems, the project presents a market analysis and strategy for this innovative platform to achieve the objectives of key players in the employment process: trainees and employers.

The first part of the thesis studied the problem of youth unemployment, as well as a proposal to solve this problem. The second part contains the Business idea of our project. The third part describes the process of developing a solution.

The result of our work will be the developed website "WexUp" - a platform for searching for internships.

## АНДАТПА

Бұл дипломдық жоба ІТ саласында тағылымдамадан өтуді іздеу платформасын әзірлеуге арналған.

Тақырыптың өзектілігі жастар арасындағы жұмыссыздық жағдайының нашарлауымен байланысты. Біздің заманымызда студенттер мен жоғары оқу орындарының түлектері кездесетін қиындықтардың бірі – алғашқы жұмыс орнын іздеу. Бұл жағдай қазір Қазақстанда және жалпы ТМД елдерінде өте өзекті. Және бұл бірнеше себептерге байланысты туындайды, олардың шешімдері түлектердің мамандық бойынша жұмысқа орналасу пайызының төмендеуіне әкелуі мүмкін.

Соңғы бірнеше жылда жас мамандарға жұмыс табуға көмектесетін көптеген жаңа платформалар мен шешімдер пайда болды. Бірақ соған қарамастан, біздің қатал шындықта жұмыссыздық мәселесі әлі де өзекті және жаңа шешімдер орын алуда.

Біздің жоба - WexUp - бұл жұмыс берушілер мен HR тағылымдама командаларының бұрыннан қабылданған тәжірибелерімен және технологиядағы трендтермен байланысты нарықтық трендтерді зерттеу нәтижесінде пайда болған идеяға негізделген АТ тәжірибесін іздеу платформасы.

Осы проблемалардың ықтимал шешімін анықтау үшін жоба жұмыспен қамту процесінің негізгі қатысушылары: тыңдаушылар мен жұмыс берушілердің мақсаттарына жету үшін осы инновациялық платформаның нарықтық талдауы мен стратегиясын ұсынады.

Дипломдық жұмыстың бірінші бөлімінде жастар арасындағы жұмыссыздық мәселесі, сонымен қатар осы мәселені шешу бойынша ұсыныс қарастырылды. Екінші бөлімде жобамыздың Бизнес идеясы бар. Үшінші бөлімде шешімді әзірлеу процесі сипатталады.

Біздің жұмысымыздың нәтижесі әзірленген «WexUp» веб-сайты болады - тағылымдамадан өту үшін іздеу алаңы.

## АННОТАЦИЯ

Данный дипломный проект посвящен разработке Платформы поиска стажировок в ИТ.

Актуальность темы обусловлена ухудшением ситуации безработицы среди молодежи. В наше время одной из сложностей, с которой сталкиваются студенты и выпускники вузов - это поиск их первой работы. Эта ситуация очень актуальная сейчас в Казахстане и в СНГ в целом. А происходит она по нескольким причинам, решения которых, может привести к понижению процента трудоустройства выпускников по специальности.

За последние несколько лет, появилось много новых платформ и решений, которые помогают молодым специалистам найти работу. Но не смотря на это вопрос безработицы все еще актуален в нашей суровой реальности и новые решения имеют место быть.

Наш проект - WexUp - платформа поиска стажировок в ИТ основан на идее которая появилась на основании исследования трендов рынка относящиеся к уже принятым практикам работодателей и HR команд по стажировкам, так и с тенденциями технологий.

Для того чтобы выбрать возможный способ решения этих проблем, этот проект представляет анализ ситуации на рынке и стратегии для этой инновационной платформы для достижения целей ключевых участников в процессе трудоустройства: стажеры и работодатели.

В первой части дипломной работы была изучена проблема безработицы среди молодежи, а также предложение о решении данной проблемы. Вторая часть содержит Бизнес идею нашего проекта. Третья часть описывает процесс разработки решения.

Результатом нашей работы станет разработанный веб-сайт “WexUp” – платформа для поиска стажировок.

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## INTRODUCTION

In our time, finding a first job is one of the challenges faced by university students and graduates. This situation is currently very urgent in Kazakhstan and in the whole of the CIS. In addition, this happens for a number of reasons, solutions that may lead to a decrease in the percentage of graduates employed in the specialty.

In the digital age in which we live, where technology is an integral part of our lives, most of the problems are solved by creating new sites, applications, projects. These tools help to achieve different results when it comes to social problems and youth unemployment is no exception. Over the past few years, many new platforms and solutions have emerged that help young professionals find internships. But despite this, the issue of unemployment is still relevant in our harsh reality and new solutions are taking place.

Our project - WexUp - is an IT internship search platform based on the idea that emerged from the study of market trends related to the already accepted practices of employers and HR internship teams, and with trends in technology.

In order to identify a possible solution to these problems, the project presents a market analysis and strategy for this innovative platform to achieve the objectives of key players in the employment process: trainees and employers.

The project we offer is an innovative IT internship search platform that explores the approach to finding internships for students and finding interns for entrepreneurs and recruitment teams.

There are many different reasons for this project:

1. Youth unemployment, which is a serious social problem, needs new solutions to reduce it.
2. Existing job-seeking platforms confirm the value of the market, but do not attempt to address the causes of youth unemployment, such as lack of experience and motivation to find work.
3. Introduction of new internship programs for companies and understanding of the value of such programs by large companies.
4. The emergence of a large number of junior/middle positions in companies that require experience.
5. The need for recruiters to analyze a large number of candidates for internships who apply from different sources and formats.

Analyzing the above mentioned reasons, the business idea of creating an internship search platform to combine the functions of finding attractive competitive

internships and functions that can allow employers to close goals in the search for and employment of interns, offering them this unique platform.

To understand how this idea can be successfully implemented, this project consists of three main parts: contextual business analysis, business planning, making MVP (a minimum viable product).

1. The first consists of market analysis, analysis of the situation in the project niche, analysis of the target audience, evaluation of competitors and surveys. The results were summarized in internal and external analysis (in the form of SWOT analysis), which can help and immediately see the pros and cons of the project.

2. The second part - business planning - highlights the business requirements and strategies that must be met for its success.

3. The third part – development of MVP – to see how the product will look like.

## **1. LITERATURE REVIEW**

### **1.1 UNEMPLOYMENT**

The International Labor Organization (ILO) and the Eurostat defines that there are three types of a person in the labor force: employed, unemployed or inactive. The unemployment counts by dividing the number of unemployed to the number of workable people. Unemployment is defined as a social problem in the Republic of Kazakhstan due to the constant rising of unemployment rate and its impact on the Kazakhstan's economical situation.

The unemployment rate in Kazakhstan is 4.9 percent. In real terms - this is about 450 thousand people from 9.2 million workable citizens. According to KPMG estimates, between 240,000 and 420,000 of the people in between and under employment need employment. Twenty-eight thousand people are part of the hidden unemployment - those who have formally maintained a labor relationship – formally working in a company – but are not actually working.

If we add up the number of unemployed (450,000) and the three categories listed, we have about 900,000 people, which is almost 10% of the unemployed (forbes.kz, 2022).

These data may also provide an explanation for all of the worries about this social issue and also imply that it will keep growing in the future, not only in the Kazakhstan, however also globally. There is a reason to it - the absence of a broad and simple solution that takes into account all the characteristics and characteristics of people in the labor market. One example is the younger generation. To understand how youth unemployment can be relevant, more information is provided below.

### **1.2 UNEMPLOYMENT OT YOUTH**

The International Labor Organization (ILO) and the Eurostat defines that, "the main indicator of youth unemployment is the unemployment rate of young people in the 18-24 age group" (Eurostat, 2015), and states that unemployment among the young workable population is also high.

Young people appears to be seriously affected by this issue and its effects may have implications for other generations. Youth unemployment is becoming a problem that will have a lot of long-term consequences for the economy of Kazakhstan and it's society. For student to make a move from the graduate to a specialist became very hard,

long and more complicated. Students have a problem of low employment rate, lowing and lack of job security.

The growth of unemployment in this group of young people is not only confirmed by the statements above, but also confirms the significance of this growth in the overall level of the unemployed in the country, given a certain age group.

According to the data of the National Chamber of Entrepreneurs "Atameken" (NCE "Atameken"), the average percentage of employment of students studying in Kazakhstan universities is 74%. This means that 26%, which is more than 185,000 students a year, cannot find a job in the specialty.

The root causes of youth unemployment can clearly show how and why young people face this problem.

### **1.2.1. LACK OF SKILLS AND EXPERIENCE**

Young people are mostly educated in theory and lack of practical skills leads to problems of access to the labour market. The lack of skills and experience is a consequence of the lack of knowledge from which these skills and experiences can be obtained. This can confuse a young man in search of a first job. Also, lead to the worst performance of his tasks and confuse the objectives of the employer. After all, having at least a small skill to work in a professional environment can be a reason to choose a candidate as an employer, although a candidate without experience may be more valuable and talented than most candidates.

Without experience, the student may find himself in a difficult situation in his field of activity and affect in the future. The set of professional skills that can be obtained only in the first workplace can be an obstacle in the search, but can also affect the student's motivation, which will lead to the least effort given to find the first job in the specialty. According to research, highly qualified young candidates can be recruited through hard search and great effort. However, the availability of skills and experience is not always the main reason for realizing all the desired opportunities.

### **1.2.2. MISMATCH OF SKILLS AND EXPERIENCE**

Even if students improve their professional skills and experience, their soft and hard skills and competencies may not always be useful to employers. Employers always have a certain profile of the candidate, where they describe what skills a candidate must possess in order to be useful in the job.

One factor contributing to the increase in youth unemployment is the mismatch between the desired skills of young workers by employers and their actual skills acquired in higher education. As a result, some vacancies remain open for a long time because there are no people with the required skills and experience, although on the other hand, a huge number of people with a diploma in hand for whom there are no suitable places in the labour market.

This situation seems to be a decisive factor in youth unemployment. Employers could therefore start more internship programmes to fill this gap. The strategy of many internships is aimed at upgrading the skills of the professionals they need and will need later, can help by providing retraining: training students in everything that the employer himself needs to close their work needs.

The discrepancy between the knowledge acquired at the university by students or courses and those skills required by the market not only leads to a shortage of candidates (which leads to an increase in unemployment), but can also affect the mental state of employees, when they're already working. The skill mismatch of an employee who is part of the team reduces their overall satisfaction, creating undesirable employment conditions.

In order to create an environment in which this problem is not so great, and the satisfaction of employees would not be diminished due to the negative impact of the lack of qualifications, it is very important to take measures and find solutions, which will improve the situation and match professional skills. Measures and decisions must be taken to deal with this situation.

### **1.2.3 AWARENESS ABOUT POSSIBILITIES**

To the previous two reasons, it is worth adding another - third - problem of students' awareness of existing vacancies and internships, but they could become ideal candidates, have suitable skills or experience. But the lack of a single platform where students can find a suitable place for themselves can prevent rising unemployment. It can also cause difficulties for student candidates to search in professional channels, possibly unsuitable, which are poorly promoted by employers and do not share opportunities.

In order to receive a proper response to employer vacancies, they must carefully examine the channels through which they are to be published. They must develop and work properly. This will increase the response rate and attract attention to the company from students - future professionals, as well as the development of new professional channels, as a platform that we limit, to find the perfect internship.

The above methods are a great way to reduce the cost of finding a new candidate (the cost of recruiter, interviewer and other team memberships) and its effectiveness (the ideal candidate who will remain loyal to the company and will remain for a long time). In this age of technology, the emergence of new search platforms that make the search method, students will be able to achieve their goals easier and faster.

#### **1.2.4. STUDENTS' MOTIVATION**

The difficulty of searching for a staging activity or a vacancy due to ignorance of the search channels or skill mismatch, as described above, may be a difficulty, but not the only one. If rejected multiple times, this can lead to reduced motivation to find a job in the profession. After all, it is easier to find a job where you do not need skills, for example in a call center or bartender, than to try and look for so long suitable place after obtaining a diploma. This factor - reduced motivation and lowered expectations - also has a strong impact on lower employment among young people.

With the passage of time, the situation only worsens the determination to look for decreases, which leads to an increase in the duration of unemployment. The most effective solution to avoid reducing motivation in our opinion is to create a platform that will facilitate the search and will be able to motivate students and achieve their goals faster and more efficiently.

#### **1.2.5. OUR SOLUTIONS**

Due to various reasons and factors, there is no single solution to the unemployment rate in Kazakhstan. Nevertheless, the analysis carried out above has shown the possibilities and methods of solving the long-standing social problem in our country. The above topics (lack of professional skills and experience, incompatibility of skills acquired at the university and required skills of the employer, lack of awareness of students about vacancies and internships, and lack of motivation) draw attention to the decision that we have to offer. It can help students find internships through a web platform - a website and a mobile offer - that can attract a large number of opportunities for both students and employers, Our solution can help students with even the least amount of skills and competence were able to find a suitable place to start their careers, using several interesting and useful functions while waiting to stimulate additional motivation to successfully complete the internship.

There are several similar solutions currently available, including HeadHunter, LinkedIn, Telegram, Beam.kz. Some of these projects are very successful, which

collect a huge number of users every month. Their long-standing success demonstrates the relevance of the niche, the existence of a valuable opportunity when it comes to developing new solutions that could help employers find interns.

But asking ourselves, can these solutions completely eliminate the problems under study, and do they completely eliminate youth unemployment throughout Kazakhstan? The following analysis will reveal a negative answer. Youth unemployment in Kazakhstan in recent years is only growing.

Since the social problem still exists (and continues to become increasingly evident), we can also conclude that this niche is still quite relevant, as well as the market is still open for the creation of new projects, as we will present in the future.

### **1.3. RECRUITING**

Having analyzed the difficulties in finding the first job for students who are going through unemployment, we should take a look at the situation on the part of the employer. After all, the aim of the employer is to recruit and successfully close vacancies. But what problems do recruiters face, what kind of people do they look for, how do they do it? Now so many companies are active, and each uses its own tactics and strategy, so there is no single answer to these questions. However, we have tried to collect their common features, and we will write about them below.

After interviewing more than 3,800 recruiters, a group of researchers from LinkedIn identified in their Global Recruiting Trends 2016 that "hiring quality" is one of the most important indicators of the set. The same article also revealed various interesting findings: while those who hired specialists were asked for the most important sources of their quality last year of employment, the main answers were "social professional networks" (which includes LinkedIn itself), "Online Vacancy Forums" (which includes the HeadHunter that was mentioned earlier) and "employee referral programs". Not only those that seem relevant in today's situation, but some of them may also continue to perform one of the main functions in future recruitment: when the same recruiters have been questioned about which ones they are "Consider the three most important and long-term trends in recruitment for professional functions", high-response questions «use of social and professional networks", "employer branding", "search for higher approaches to providing passive applicants" and "employee referral program".

The establishment of an Internet internship search platform was not a frequent response to the previous questions. The search of candidates, its methods and strategies, are not particularly relevant in this context, so we will not consider them, as

the main goal of our project is to increase the level of employment of students. Social employment relationships and referral programs are classic ways of hiring and can help us understand how recruiters and HR teams work.

### **1.3.1. SOCIAL EMPLOYMENT RELATIONSHIPS**

Our social and job networks are constructed from the people we know in exceptional contexts (both a personal perspective, including our near friends and a professional perspective, including work teammates). Our connections can help to get us to realize more internship possibilities and easier methods of accomplishing the employers' needs, being the only example the case when a friend who works in an organization which is attempting to hire someone for a specific vacancy. If our friend provides us a specific possibility earlier than the organization promotes it externally on their working channels, catch the possibility earlier than the others. Social networks, however, had been struggling with impactful changes all through the years, generally because of the current growth of on-line social networks. If we see it through the employers' perspective. Not only are there a huge amount of active customers on social media regularly as also, because of the previous reason, a huge amount of organizations have an active presence on social media at a global level. It became inevitable that the job search process began out taking benefits of these groups with a purpose to create a way to attach both parts (applicants and employers).

This kind of usage of social media for recruitment purposes is now spread all over the social media, however there are two of them which might be extra typically used:

1. LinkedIn
2. Telegram

The organizations that choose to have a strong on-line presence and in order to have powerful hiring and recruitment strategies through social media want now to fund more of their sources into this area, which is leading to an growth of organizations making an investment in digital marketing groups and employer brand management.

In large companies, marketing groups have been created which, together with the hr department, enhance online recruitment strategies during the selection of search channels and recruitment tactics.

Also, we are looking to increase funding for the HR brand of the company, in order to spread the name of the company and its activities not only as a manufacturer but also as an employer. After all, the name of the company as an employer has a great impact on the recruitment process, as a more recognizable company has a chance to



take the best candidate, without offering a high rate of higher than that of a foreign company.

### **1.3.2. EMPLOYEE REFERRAL PROGRAMS**

According to the LinkedIn research, finding cadids through the use of a referral program (the employee offers a friend to the position and receives a bonus) becomes a particularly effective method, and also increases the loyalty of employees to the company.

Earlier we discussed the problem of inconsistent skills of students was one of the main problems of unemployment, so the referral program can become a very important way in recruitment.

Steve Klingenstmith - Recruitment Manager at Booking.com, cited his opinion in the LinkedIn study, noting that "Sending Employees is the only thing that we do in recruitment. This is the best source of good, quality employees". He also noted an interesting fact: "Unfortunately, most companies treat their referral program as an HR program. If you really want to succeed with referrals, you should treat it as a marketing program".

## 2. BUSINESS IDEA

The project to be presented is composed on a business plan for an innovative internship search platform. As outlined in the diagram below, the literature review helps the existence of a commercial possibility to explore and some particular factors and techniques to apply to make it specific and innovative while in comparison with the already existing solutions.

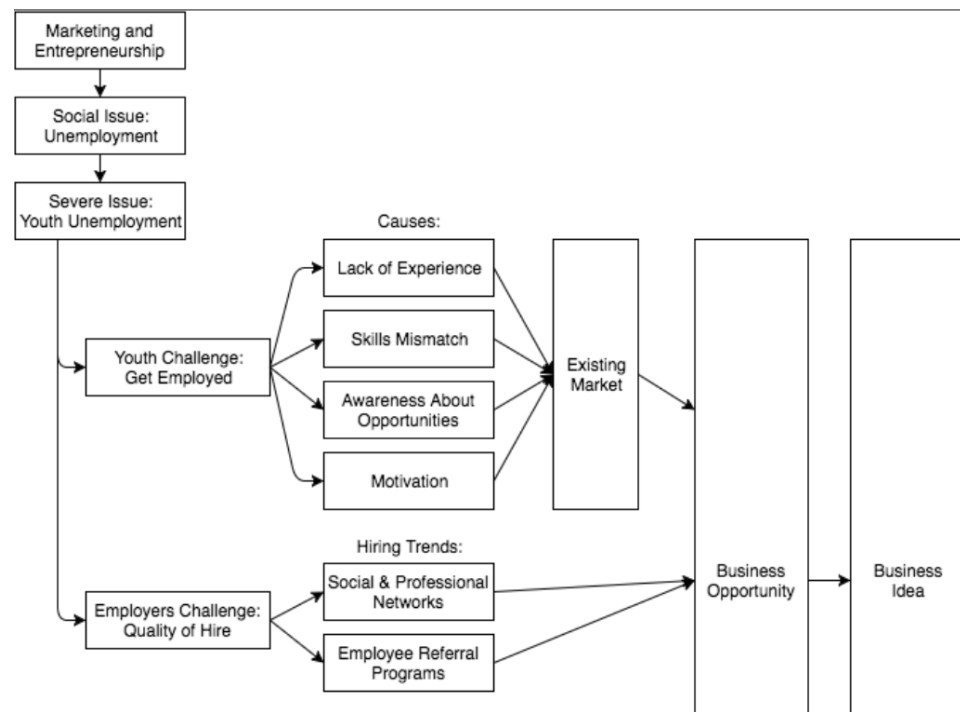


Figure 1 Literature Review and main topics under analysis

### 2.1. THE PROBLEM

The identified social problem in Kazakhstan has shown that youth unemployment is our main problem and requires a separate solution, unlike other age groups. We have clearly identified the reasons for the low level of employment of students. These include: withdrawal of suitable professional experience and skills, their mismatch of skills for the requirements of employers, lack of awareness of students about possible internships and reduced motivation. They can be corrected with the help of the project that we offer, this solution can provide all the conditions for the internship of students. Current solutions that have a number of previous characteristics and factors show that they can be a successful and mature market providing similar services (made by online platforms they include HeadHunter or Telegram) This suggests that there may be additional opportunities for new interns on the market.

## 2.2. IDEA

We have analyzed all the problems existing in the labor market, for this reason we offer the idea - this is WexUP - a platform for job search.

Our idea was to allow the student to log into his account so that the platform could help him find suitable vacancies or internships. After that, update your résumés and begin sentencing. Filters in the directions, only the latest updated vacancies, can attract more and more students for our platform. There will be no other vacancies that could distract a future intern.

## 2.3 TARGET AUDIENCE

We tentatively know that our target audience are the students of Kazakhstan Universities. There are 55 universities with IT related specialties, among them International University of Information Technologies (Almaty), Kazakh-British Technical University (Almaty), Suleiman Demirel University (Almaty), Karaganda Technical University, Karaganda University named after Academician E.A. Buketov and others. So looking at their geography, we can absolutely claim that our project can be usable all over Kazakhstan.

After some research we can see that our target audience is 4th year students - undergraduates.

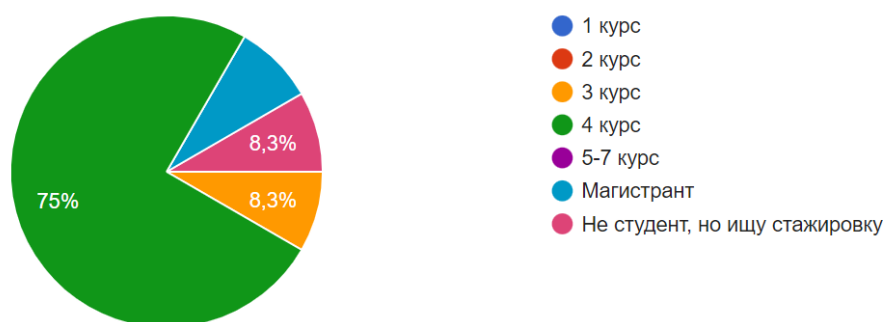


Figure 2 Target audience (year of studying)

66% of students are currently searching their job opportunities - internship, as the easiest way to prepare for the real job offer.

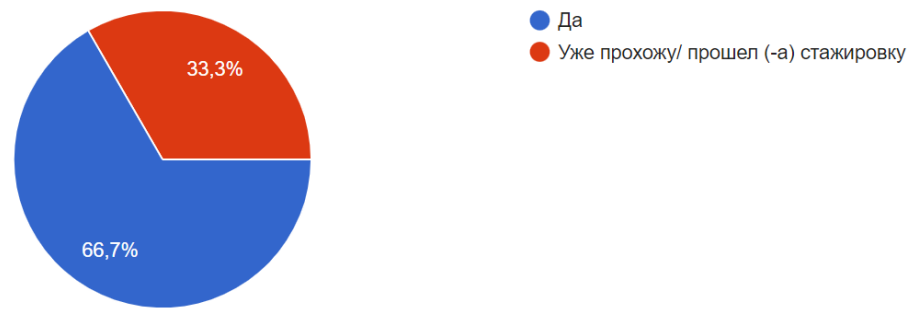


Figure 3 Target audience (relevance of internship searching)

The result of our research states that it takes nearly a month or more to find an appropriate internship that will teach them all of need competencies, hard and soft skills to become a qualified junior (maybe even middle) specialists.

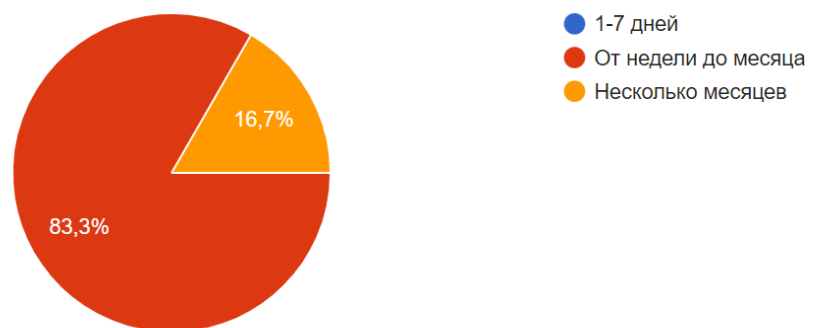


Figure 4 Target audience (internship searching time)

Also according to official information from NPP Atameken it takes around 40 days to find a job.

Место в рейтинге	Наименование вуза	Тип вуза	Код вуза	Среднее время поиска работы, в днях	Трудоустройство выпускников, %	Средняя заработная плата выпускника, в тенге	Средняя стоимость обучения, в тенге	Наличие аккредитации
1	Международный университет информационных технологий (г. Алматы)	Частный	190	43	69%	243488	1034250	ASIIN
2	Казахстанско-Британский технический университет (г. Алматы)	Частный	421	31	79%	295150	1950000	ABET
3	Университет им. Сулеймана Демиреля (г. Алматы)	Частный	302	42	77%	258756	1200000	IAAR
4	Карагандинский технический университет	Государственный	032	56	82%	155642	520000	IQAA
5	Карагандинский университет им. академика Е.А. Букетова	Государственный	031	45	71%	137251	443000	IQAA

Figure 5. Target audience (internship searching time)

Moreover, finally, the question - “Would you like to use an all-in-one platform for internship searching with filters and updated vacancies?” - was asked unanimously YES.

Хотели бы вы увидеть единую платформу стажировок с фильтрами поиска и свежей информацией?

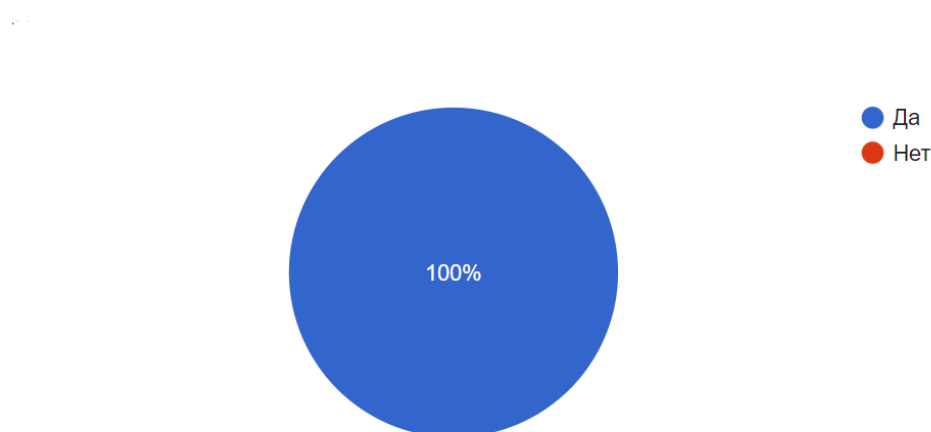


Figure 6 Target audience (Platforms' requirement)

## 2.4 INDUSTRY PARTICIPANTS

In Kazakhstan, we have several big players that dominate the market and smaller developing players. Some of them are international platforms, some are local and will be discussed further.

### 1. LinkedIn

Everyone who wants to be identified in the business creates a profile on LinkedIn. This social network has international professionals working in the same field connecting each other and also sharing experiences. HR finds here talents from Kazakhstan and even abroad.

## **2. HeadHunter**

One of the most popular and effective job search websites in Kazakhstan. According to SimilarWeb, HeadHunter.kz was the 3rd most visited website on 1 February 2021.

## **3. Beam.kz**

A relatively new platform in Kazakhstan's market, its uniqueness is connecting universities with the employers.

## **4. Telegram channels**

Telegram - social network with the possibility to create channels. Most of the entrepreneurs and HR specialists are creating channels with the new vacancies.

## **5. Yuniior.ru**

A relatively new platform in Russia's market, has the same goals as our project, but based only in Russia.

The analysis of the market shows that all of our competitors are aimed at a wide audience (every person regardless of experience can use it) and there is no particular target audience. HeadHunter is exclusively a search portal, while LinkedIn is gaining attention with their post activities outside of recruiting. Telegram channels are mostly muted. Beam.kz and Yuniior.ru are having poor marketing plan, so they are poorly used. Out of these market players, we are stating that HeadHunter is more similar to our vision and our goals. We see that that company has much more funding, experience, and awareness, but we also can see that the niche in the field of an internship has not yet been filled.

### **2.4.1 WEXUP TELEGRAM CHANNEL**

In order to find out why telegram channels are getting so popular we founded our own channel called “WexUp – поиск стажировок”

We published the internship vacancies for free by using the template designed by us for an easier perception.

The template is shown below in the Table 1.

Table 1 Vacancy Template

<b>Important Points</b>	<b>Example</b>
Name of the vacancy	Technical support developer (intern)
Name of the company	Prime Source
City	Almaty
Requirements	<p>A graduate of a technical university or a senior student who dreams of a promising job in a leading IT company;</p> <ul style="list-style-type: none"><li>• You have a broad outlook in the field of IT;</li><li>• Curious and attentive - you notice shortcomings in the processes, objects and phenomena around you, you are interested in the nature of things;</li><li>• You have a "live" mind, you like to analyze;</li><li>• You learn quickly, like to solve interesting and non-standard tasks</li></ul>
Internship advantages(optional)	<ul style="list-style-type: none"><li>• Training under the guidance of professionals with extensive practical experience in the field of IT;</li><li>• Maintenance of the AML system;</li><li>• For the best interns - the opportunity to get a job.</li></ul>
Terms & Offers	<ul style="list-style-type: none"><li>• A team of professionals who will be able to handle any task;</li><li>• Breakfast: grain coffee and tea (in assortment);</li><li>• Registration according to the TC, after a successful internship;</li></ul>

	<ul style="list-style-type: none"> <li>• Taking care of your health: after the probationary period VHI with a wide range of services;</li> <li>• Additional paid vacation;</li> <li>• Corporate events (table tennis games, table football).</li> </ul>
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We also tried to collect the base of the interns' CV by using Google Forms. Key point of the interns' CV are:

1. The full name;
2. The current city of residence;
3. University;
4. Specialty;
5. Year of study;
6. What position would you like to apply for an internship?
7. Describe your experience (University projects, work);
8. Your Strengths;
9. Skills;
10. Contacts;

For a couple of weeks we have got over the 300 subscribers and about 15 curriculum vitae. In addition, we even helped students to get their first offer for the internship in such companies as "Prime Source", "Froot" and "Bimash".

Connection with different HR specialists of different companies became the additional opportunity for our project that we gained from the Telegram channels.

It is available by: <<https://t.me/wexupfind>>.

#### **2.4.2 FEATURES IN THE COMPETITION**

Many features that are offered by our competitor affect on their actual activities and also our similarity to them. There is some features that we are defining as important in our project:

1. **Detailed information**



It is vaguely important to have the detailed information about the vacancy, so the students can evaluate if the internship suits them.

## 2. **Easy to find**

It is important to find the appropriate vacancy easily and fast to keep students' motivation.

## 3. **All-in-one**

It is important to have all the professional areas in one platform.

## 4. **Filter**

As it was mentioned before, to keep applicants' motivation to get an internship easily and structured we offer to use filters.

## 5. **Availability in Kazakhstan**

The platform should be available for Kazakhstan users in its every part.

### 2.4.2 COMPETITORS COMPARISON

By using the internet anyone could simplify including finding an internship.

In this regard, Headhunter.kz, Telegram channels, Beam.kz, LetIntern were analyzed in the below.

Table 2 Comparison of the competitors' features

Product\Features	Detailed information	Filters	All-in-one	Easy to find	Availability
HeadHunter	+	+		+	+
Telegram Channels				+	+
Beam.kz	+	+		+	+
LetsIntern	+	+		+	
Yunior	+	+	+	+	

## 2.5 COMPETITIVE ADVANTAGE

The table provided above (Table 1 SWOT Analysis) summarizes the internal analysis performed so far, with the company's capability strengths and negative elements, as also the external analysis, through providing probably helpful and harmful factors, which should be taken into consideration in order to compete in the proposed context and environment.

Table 3 SWOT analysis

<b>SWOT</b>	<b>Helpful</b>	<b>Harmful</b>
<b>Internal factors</b>	<b>Strengths</b>  <ol style="list-style-type: none"><li>1. An all-in-one platform for students;</li><li>2. Filters;</li><li>3. Available and detailed information;</li><li>4. Available in Kazakhstan</li></ol>	<b>Weaknesses</b>  <ol style="list-style-type: none"><li>1. Dependence on the employees;</li><li>2. Dependence on enterprises;</li><li>3. Unstable financial situation;</li><li>4. Not yet a strong brand name.</li></ol>
<b>External factors</b>	<b>Opportunities</b>  <ol style="list-style-type: none"><li>1. One of the solutions of youth unemployment ;</li><li>2. Working with international companies;</li><li>3. Youth's lack of experience solution;</li><li>4. Skills mismatch between candidates and employers solution;</li></ol>	<b>Threats</b>  <ol style="list-style-type: none"><li>1. Global pandemic;</li><li>2. Cyberattacks;</li><li>3. Customer base based on a certain category of people</li><li>4. High number of competitors;</li></ol>

	5. Lack of motivation from candidates solution; 6. Growing investment in talent acquisition;	
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### **Strengths**

Our platform is all-in-one solution for students so that they can easily and effectively find an internship. Available and detailed information and filters are the main features that help user to get the goals. Availability in Kazakhstan is the important part because most of our competitors are from abroad.

### **Weaknesses**

A hiring season of companies affects our financials. Because of this, from time to time the project may suffer from a periodic financial flow. In addition, an important part of a promotion of a platform is its reputation. Since our platform is new, we weak can affect low sales at the first time because of the weak brend name.

### **Opportunities**

We see cooperation with international companies, because they often post internship programs. This cooperative will help to improve our platform to become one of the solution of youth unemployment, youth's lack of experience, skills mismatch, lack of motivation from candidates. That is why it is investment in talent acquisition;

### **Threats**

As we have all seen, nowadays is a big threat of global pandemics. Because our platform is an online website, quarantine cannot affect us. Nevertheless, the effects of quarantine can affect us through our clients because of decrease in active vacancies. The threat of cyberattacks, which is dangerous for platforms such as ours. The limited target audience could be too small to maintain the platform. In addition, the competitors, who already took place in the market, could pose a threat for us.

## 2.6 MONETIZATION

There are three options for the monetization of the platform for searching internships:

1. One-time fee for the employers (Publication of vacancies, internships);
2. Advertisement (Some job related events, bootcamps, hackathons from companies or universities);
3. Sale of Bases of Interns (For employers to choose the best candidates by CV).

### 2.6.1 PRICING

Our pricing will be referred only for employers. It based on three type of features we have in our platform:

#### **One-time fee:**

1. 1 publication – 1 000 tenges. It will allow them to lay out 1 vacancy and see the list of applicants.
2. 5 publications – 5 000 tenge, additional one vacancy publication free, in total 6 publications .
3. 15 publication – 15 000 tenge, additional three vacancies publication free, in total 18 publications.

One-time fee will allow: layout vacancies and see the particular applicants' CV.

#### **Advertising:**

1. 1 advertisement, that will stay about 14 days – 35 990 tenges.
2. 5 advertisements – 84 990 tenges.
3. The additional days after expiration (+ 1000 tenges).

Advertisement works only for job related events, bootcamps, hackathons, advanced training courses. It is considered to avoid distractive information with concern about users and not to ruin the rating of the platform.

#### **Base of interns:**

1. 1 week – 10 000 tenges.
2. 1 month – 25 000 tenges.
3. 3 months – 50 000 tenges.

4. 6 months – 80 000 tenges.
5. 1 year – 100 000 tenges.

We offer the access to the base of interns, where they can find out the best students based on their requirements. Contacts of the applicants will be in the CV, so they can easily and quickly contact him and invite to the interview.

**Turnkey solution:**

The access for all of the opportunities of our platform:

**1 month – 20 000 tenges.**

First 3 months we are not expecting any kind of revenue, because we must be in search of customers (employees) and make an advertisement of our platform, also after finding real customers, they will have the opportunity to get the free trial of the product for 2 weeks.

## **2.7 OCCUPATION AND HEALTH SAFETY**

Nowadays employer are under the health risks as much as specialists of other areas. Long hours of working with sitting at computer that can cause eye damage or spinal disease. Moreover because of a COVID-19 pandemic the number of remote working employees raised. Most of the employees has not prepared their working place at home properly to compare with the well-equipped office. That makes our employees vulnerable to the illnesses of spinal functions. That's why it is important to follow health safety standards. Among them are:

1. 8-hours working day
2. Every 1-2 hour small breaks
3. 5-minute exercises for eyes and whole body
4. Working place with good lighting
5. Healthy sleep schedule (going to bed not too late)

Also there are rules for employers - Requirements for safe working conditions in the workplace:

1. Equipment that meet the requirements of standards and other regulatory documentation;
2. Compliance with the terms of periodic repairs and maintenance of equipment;
3. Compliance with fire and electrical safety requirements in the equipment of industrial and office premises;
4. Installation of the necessary protective devices and structures;

5. Ensuring sufficient lighting, ventilation, maintaining an optimal temperature regime in workplaces;
6. Timely disposal of dust and waste;
7. Provision of workers with clothing and footwear, as well as other personal protective equipment, in accordance with the specifics of production;
8. Providing employees with up-to-date instructions on TB, visual materials;
9. Installation of all the necessary signalling systems at workplaces and workplaces, security signs, etc.

### 3. DEVELOPMENT OF MVP

#### 3.1 ABOUT PLATFORM

Our platform – WexUp – is the platform for searching internships for students and interns for employers (recruiters, HR specialists).

The user can login as an student or as an recruiter.

The user maps for the recruiter and for the student are shown below.

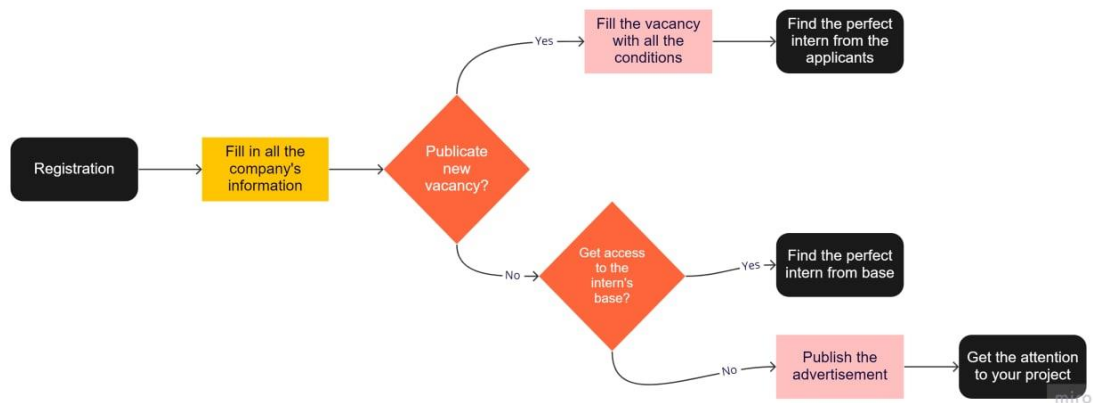


Figure 7 User map for the recruiters.

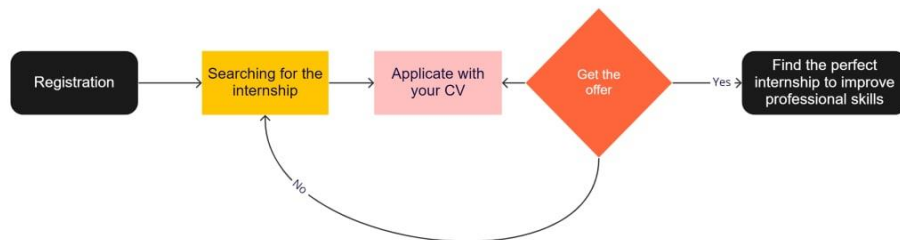


Figure 8 User map for the students.

As it shown in Figure 3 after registration the recruiter will have an opportunity to publish the vacancy of the internship, get access to the interns' base or to publish the advertisement of their event. All the prices are shown it the 2.6.1 PRICING part.

As it shown in Figure 4 after registration the students will have an opportunity to search the perfect internship by using filters without any distractive information.

### 3.1 UX/UI DESIGN

The UI/UX Design Process is a methodology that allows to make your user interface(UI) to be the best for your business.

Firstly, we made a wireframe to find out the structure of our website. After finding out what page comes after another, we designed a sketch of our platform. It gae us the effect of simulator. For this part we used Figma – one of the most popular tool by UX/UI designers.



Figure 9 Wireframe of the web platform



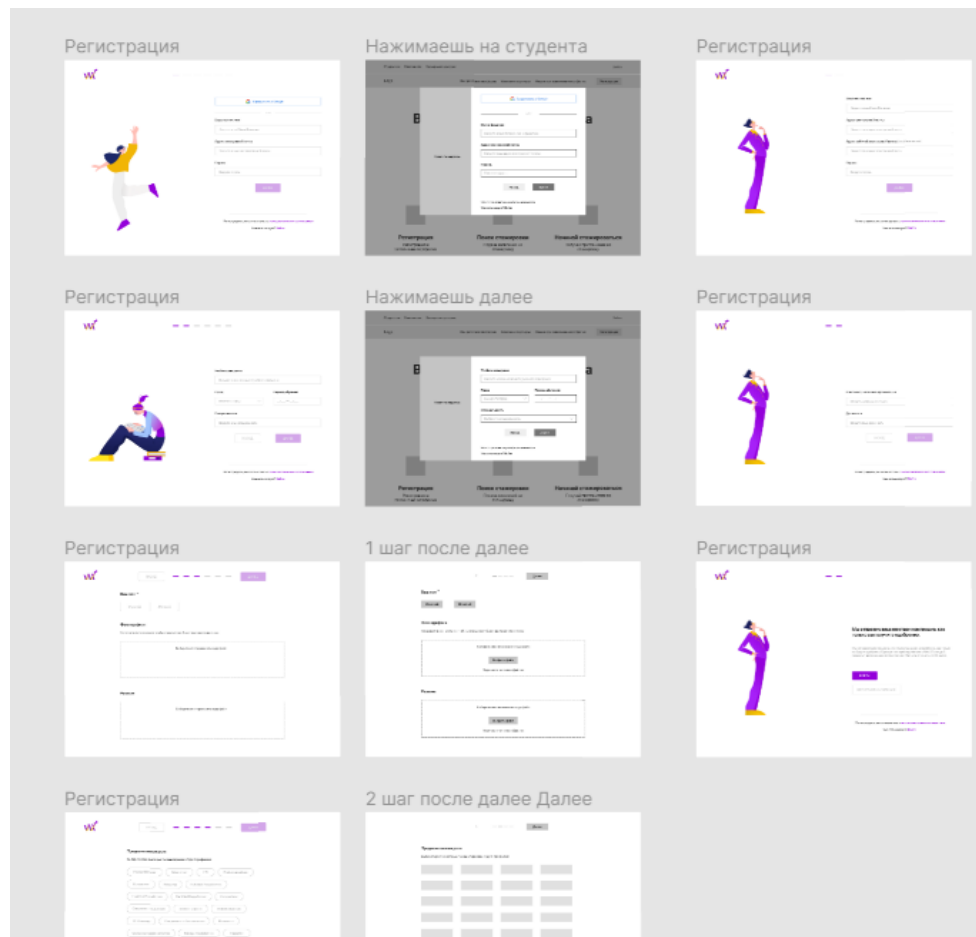


Figure 10 Prototype of the web platform

We also designed a mobile version of our platform.

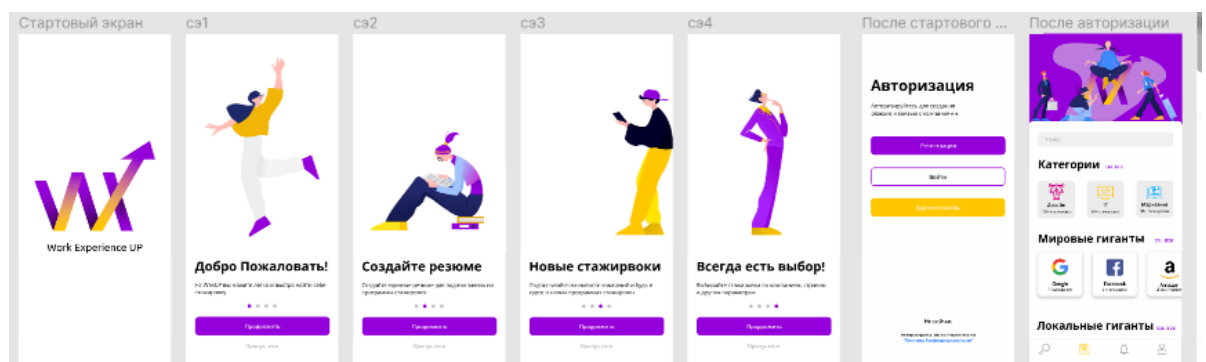


Figure 11 Prototype of the mobile platform

## **3.2 BACKEND DEVELOPMENT**

For backend, we are using Django framework because it is easy to use, no need to create many migration files. They are generated automatically and it is comfortable to write API because for example one view, which may contain five lines of code, may retrieve get request and send data to the requester or retrieve post request with data and make record to a database.

We decided to make a single page application that is why we are using API, to send and retrieve data. For this, we are using Django REST Framework. To send requests from frontend it is required to use CORS, so we have it. For database, we use PostgreSQL because it is free and by default Django uses SQLite3, which is a database that uses database as a file which is not applicable to us because we also have our IOS app, so we need to use common remote database server. In addition, in order Django ORM could work with it, we use psycopg2 driver, so ORM script can be translated to syntax of PostgreSQL.

To make authorization and authentication it is required to use inbuilt User model. However, it does not have fields applicable for our project, so we made Custom User model. In addition, our User model needs to have image and file fields, so we need to use PILLOW library. For more comfortable authorization and authentication we decided to use google api. For this, we took CLIENT\_ID key and CLIENT\_SECRET so we can make Oauth2 flow.

In order our teammates will have same libraries, packages for backend we store all their names in requirements.txt file, thus when either of us make GIT pull and see that there's a change in this file or find out that this file was changed because of errors coming, he/she can simply run "PIP INSTALL -R REQUIREMENTS.TXT".

In order not to have conflicts while installing all the requirements, all files and folder that differs depending on operational system like VIRTUALENV folders or folders containing images are stored in .GITIGNORE file.

## **3.4 FRONTEND DEVELOPMENT**

Next, comes the front-end part, the technology stack we used is the React library, why React? Because thanks to react, our application uses a single page application. This is very convenient, as the application interacts with the user by dynamically rerendering the page, thus not wasting time on requests when reloading or when switching from a page to the page the user is on.

In React, we use Routing to navigate between pages, this allows us to render pages by URL at a specific URL without reloading it.

We also used hooks, hooks are the ability to use state and handle component lifecycle events without using components, based on classes. For example, using the state hook (USESTATE).

Since our form on the registration page is divided into several components, accordingly, data from each component needs to be stored somewhere. When switching to the next step, if the user reloads the page, the data can simply be erased.

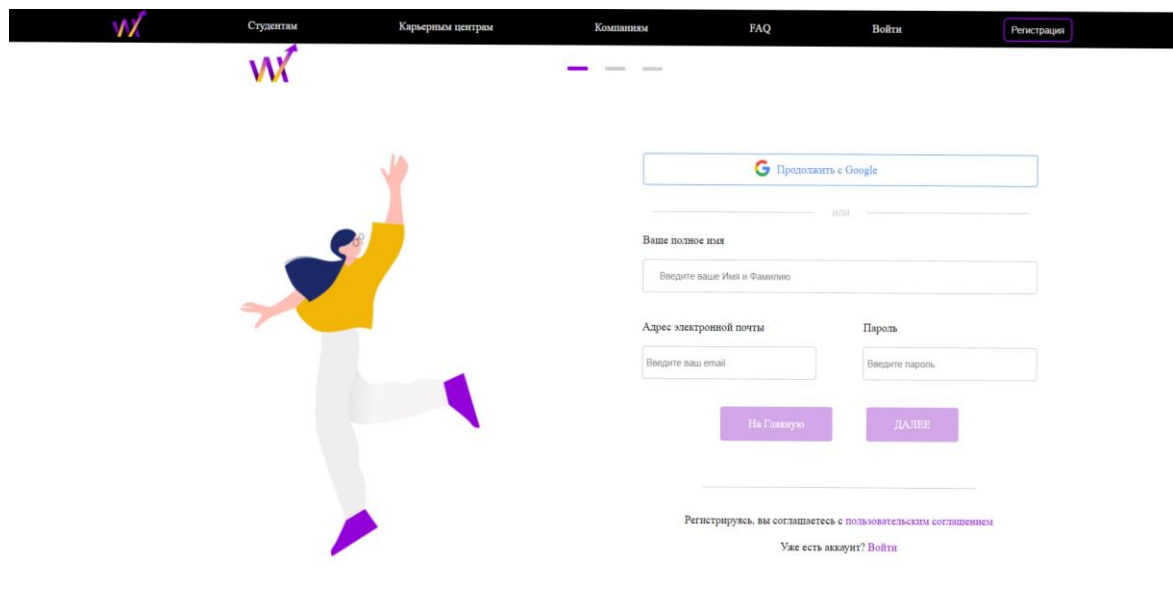


Figure 12 The example of the frontend development of the platform.

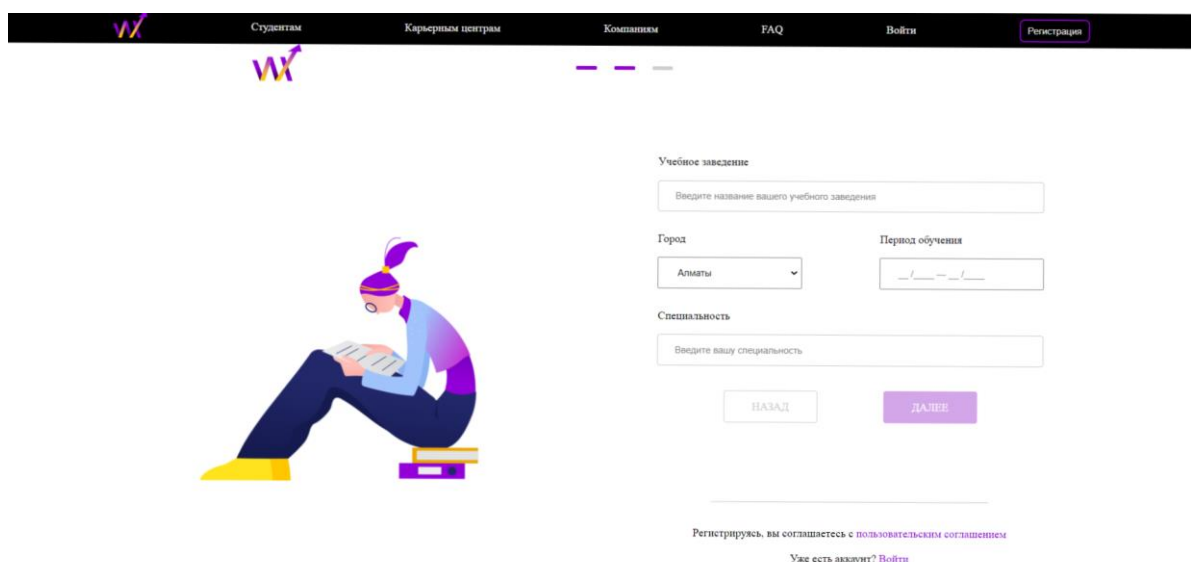
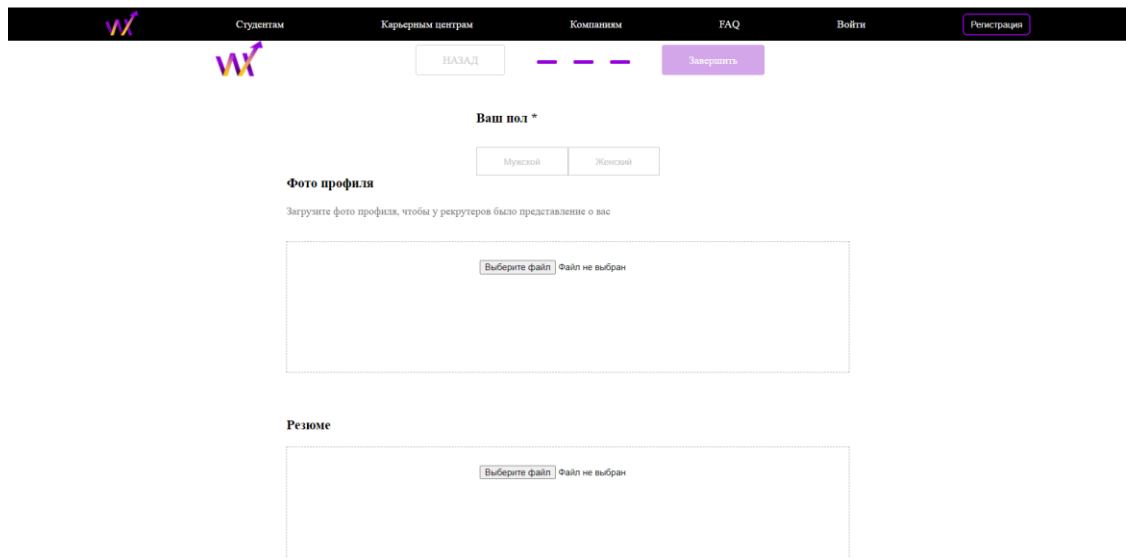


Figure 13 The example of the frontend development of the platform.

Therefore, we use LOCALSTORAGE to temporarily store data. Moreover, when the last registration step takes place, we pull out all the data from LOCALSTORAGE, including the data from the last registration page.



The screenshot shows a web form for user registration. At the top is a dark navigation bar with a logo on the left and links for 'Студентам', 'Карьерным центрам', 'Компаниям', 'FAQ', 'Войти', and 'Регистрация' on the right. Below the navigation bar is a light gray header area containing a logo, a 'НАЗАД' button, a dashed line, and a 'Завершить' button. The main form area has a title 'Ваш пол \*' followed by two radio buttons labeled 'Мужской' and 'Женский'. Below this is a section titled 'Фото профиля' with the instruction 'Загрузите фото профиля, чтобы у рекрутеров было представление о вас'. It features a large dashed rectangular box for file upload, with a button 'Выберите файл' and the text 'Файл не выбран'. A similar section titled 'Резюме' follows, also with a dashed box, a 'Выберите файл' button, and the text 'Файл не выбран'. The form is set against a light gray background with a thin green horizontal line at the bottom.

Figure 14 The example of the frontend development of the platform.

And combine everything into one FORMDATA object and make a post request to the backend, in turn it accepts, checks for validity, if everything is fine, does writing to the database.

Ваше полное имя

Адрес электронной почты

Адрес рабочей электронной почты(не обязательно)

Пароль

[НАЗАД](#) [ДАЛЕЕ](#)

Регистрируясь, вы соглашаетесь с [пользовательским соглашением](#)

Уже есть аккаунт? [Войти](#)

Figure 15 The example of the frontend development of the platform.

Компания Название организации

Должность

[НАЗАД](#) [Завершить регистрацию](#)

Регистрируясь, вы соглашаетесь с [пользовательским соглашением](#)

Уже есть аккаунт? [Войти](#)

Figure 16 The example of the frontend development of the platform.

When the user performs authentication, the data is also sent to the backend, where it is again checked for the validity of the data, if everything is OK, a response arrives containing an email and a status of 200 OK. Moreover, if such a user is not in the database, then a 401 error will come.

The image shows a web form for user authentication. At the top, there is a button with the Google logo and the text "Продолжить с Google". Below this is a horizontal line with the word "или" (or) in the center. Underneath, there are two input fields. The first is labeled "Адрес электронной почты" (Email address) and contains the placeholder text "Введите ваш email". The second is labeled "Пароль" (Password) and contains the placeholder text "Введите пароль". Below the password field is a purple button with the text "Войти" (Login). The entire form is enclosed in a thin green border.

Figure 17 The example of the frontend development of the platform.

For registration and for the option to enter, in addition to filling in the data yourself, it will also be possible to use authorization and authentication through Google, which will be very convenient for users of our application.

Since we have a single page application, in order to receive data from the backend, we make a request there in order to get the API. Moreover, the whole thing happens asynchronously.

Of course, there will be a personal account page where you can write a resume for a student, and this page will naturally only be for a student, not for a recruiter.

### 3.5 MOBILE DEVELOPMENT

In the mobile version of the application, we focused on the implementation of the IOS application in the Swift programming language. This choice is due to the fact that we are launching a project at the MVP stage to check the interest of customers in our product.

In the application, we implement all the functions inherent in the web version of the application, such as:

1. Registration of new users (both students and recruiters)
2. The ability to post new internships
3. Monitoring and tracking your current applications and requests

Adaptability for different versions of devices running IOS was also added.

User registration goes through entering them into the database in the form of a token sent to a single database for the web and mobile application.

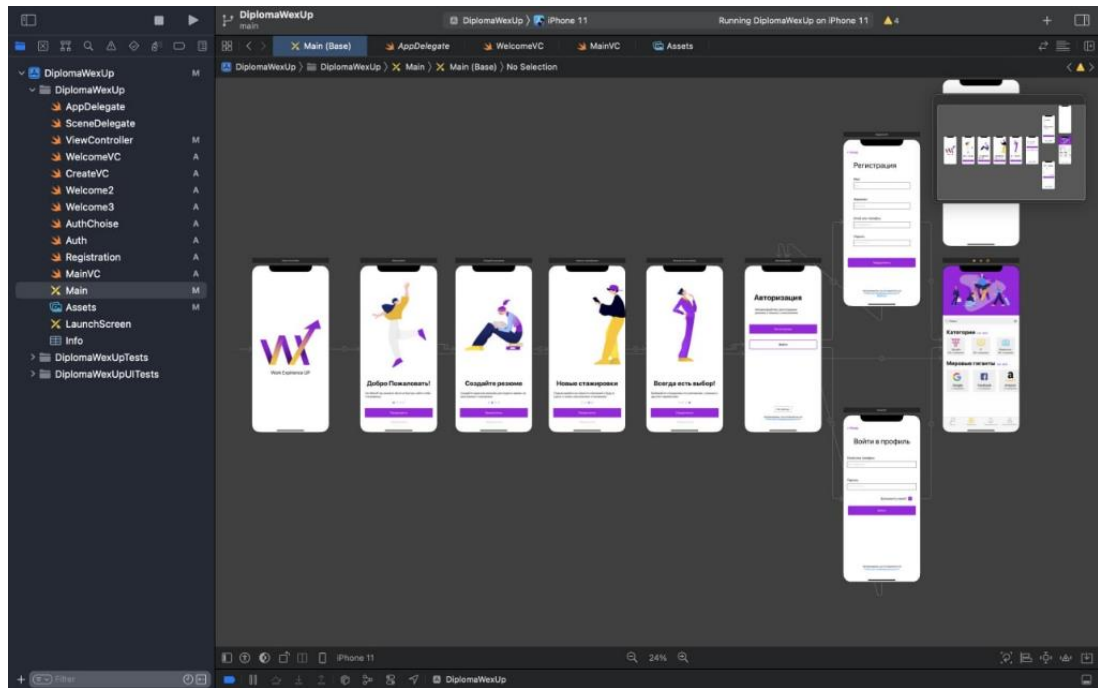


Figure 18 The example of the mobile development of the platform.

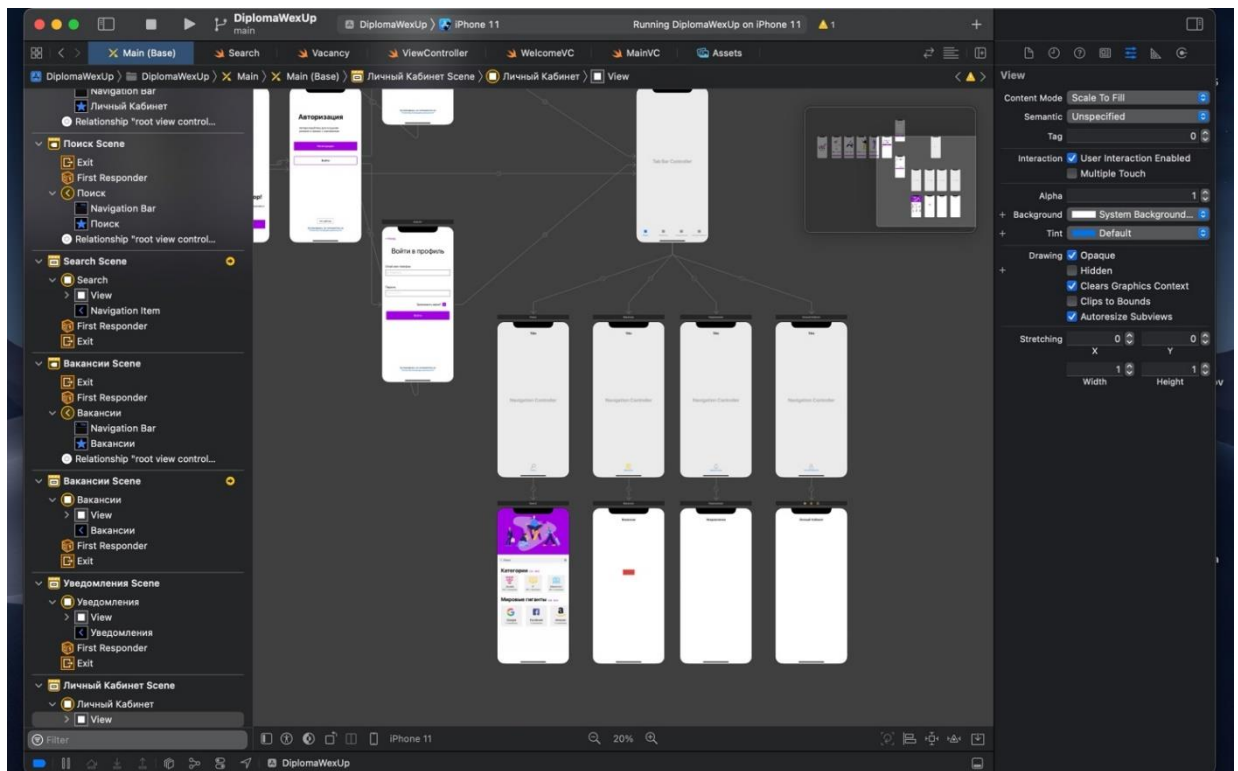


Figure 19 The example of the mobile development of the platform.

When creating the design of the mobile version of the application, we were based on the functionality and ease of use of the application by users.

It was decided to stick to the same color palettes as when creating the web version of the application.

The main menu of the application is a Tabbar controller with 4 child Nav controllers, each of which leads to the corresponding part of the application.



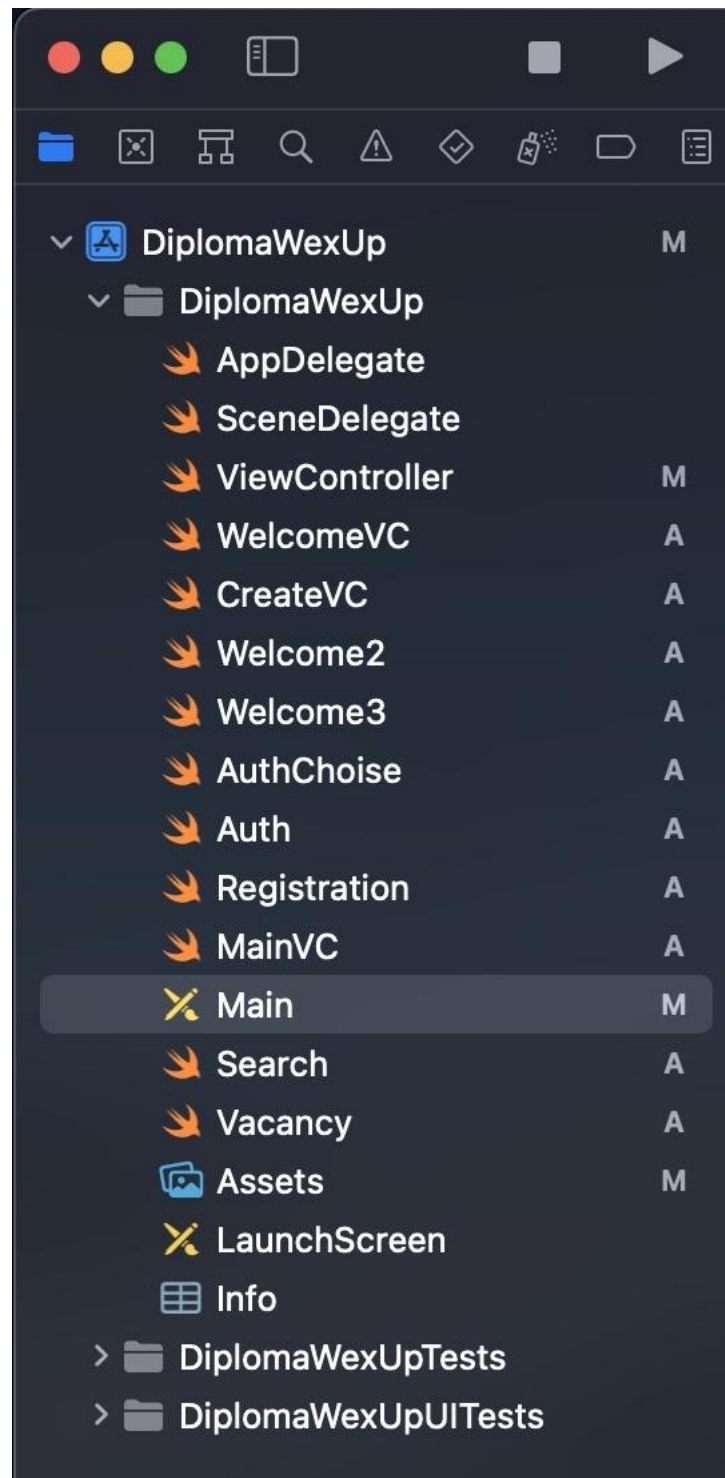


Figure 20 The example of the mobile development of the platform.

## CONCLUSION

In this thesis project was considered the social problem that leads to individual difficulties of students and employers.

Our project - WexUp - is an IT internship search platform based on the idea that emerged from the study of market trends related to the already accepted practices of employers and HR internship teams, and with trends in technology. The project's market analysis and strategy for this innovative platform showed us the relevance of our project.

This project will help to solve next problems:

1. Youth unemployment, which is a serious social problem, needs new solutions to reduce it.
2. Existing job-seeking platforms confirm the value of the market, but do not attempt to address the causes of youth unemployment, such as lack of experience and motivation to find work.
3. Introduction of new internship programs for companies and understanding of the value of such programs by large companies.
4. The emergence of a large number of junior/middle positions in companies that require experience.

To conclude, our project will help to solve actual problems of university students, graduates and employees, as much as to reduce the Kazakhstan's actual social issue – youth unemployment.

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