

**Ministry of Education and Science of Ukraine
National University of "Kyiv-Mohyla Academy"**

Network Technologies Department of the Faculty of Informatics



Creation and distribution of the commercial project

Text part of course work

in speciality "Computer Science and Information Technologies" 112

Coursework supervisor docent

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Made by student

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INDIVIDUAL TASK

for course work

For the student of the Faculty of Informatics of 4 course of studying
THEME Creation and distribution of the commercial project

Output data:

Text part content of coursework:

An individual task

Calendar plan

Annotation

An introduction

Theory basics

Description of projects

Launch set up in a nutshell

Issues to face

Process management

Application creation

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Theme: Creation and distribution of commercial projects

Calendar Plan:

Number	Name	Date
1	Choose the theme	12.10.2019
2	Choose the project	01.11.2019
3	Set project milestones with the team	15.11.2019
4	Create UI	31.11.2019
5	Create the project	01.02.2020
6	Find out Target Audience	10.02.2020
7	Add adds to the app	15.02.2020
8	Describe the basics of project distribution	29.02.2020
9	Basics of the project's lifetime	07.03.2020
10	Discuss the app created with the mentor	25.03.2020

11	Send the app to Apple and Google stores	01.04.2020
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“ _____ ”

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Annotations

In this coursework the basic lifespan of a startup or a regular project are described. Specific situations, which come up during building and managing the team are explained. There is also a description of the work done to create the app “Quarantine” . The idea of this app is just a fun for the users and money income for the developers from the adds banners inside the app. The preparations done before launching the app are also described below.

All the paragraphs describe the real experience gained by the author during the “Quarantine” project.

1. Introduction

The idea of this coursework? Structured, understandable basics, important to know any startup.

We will check out the explanation of the work of startups around the world. While considering the actual example of “andcards”, we try to import their experience to our own project.

Focusing on not only the development process but also at the distribution part of the project, we shall learn some useful information for the future.

Most of the projects started are closed, not getting to the first checkpoint. It is caused by the lack of critical questions to be asked before the beginning.

These are the questions “What problem do I solve?”, “How can I help?” and the similar ones.

By starting this coursework, the author had 1 year of experience working at an “andcards” startup, which is taken as an example here, gained tons of useful knowledge, which one decided to share.

If we try to question this coursework, as a startup, then the answers for the questions will be “Unqualification of the entrepreneurs” and “I can help them learn by somebody else’s mistakes, not causing own ones”.

Trying to pursue the point, which means, that it doesn’t really matter, how great the product is, without the correct distribution little does it will become popular and get the correct acknowledgment.

Starting at the theory part, we shall learn about the niches to start at. Basically this is not the question to be asked when starting the idea, though this is surely the knowledge better to possess when one decides to create a business.

Following by the paragraph about project lifetime, we will describe the most common route of the product from the “idea” part up to the successful ending.

The next paragraph of the coursework stands as a guide, based on the writer’s experience, as to show one of the possible ways to build the team and develop the project as a real manager.

The Sales para shows the sales pipeline used in the successful startup “andcards” as an example, with the explanation of each pipeline checkpoint, one may give you a plenty of useful and eve unknown before information.

2. Project types

We can clearly separate the two different types of IT projects nowadays.

The success condition of every project/business is simple - it HAS TO solve the problem.

As it is said in a lot of sources and books, there is a RED and a BLUE ocean. This is the abstractive naming of products and businesses, which help us exist the way we do today. Let's dive into the deeper explanation of each type mentioned above.

a. Blue Ocean

This is basically the marketing strategy, firstly described by W. Chan Kim in the book "Blue Ocean Strategy". The sense of such a strategy stands in creating or finding out the new demands of people. When the current market is overfilled with the same products, offers, and solutions, it becomes quite hard to hold the competition in between. Mr. Chan described the way to avoid or win such marketing competition by a quite simple move - creating something completely new for the market. The idea may seem pretty easy, but it isn't the way it looks.

Usually, the Blue Ocean market stays clear for a very little period of time. For example, the coworking industry, which started rapidly growing in 2010 surely needed the software to simplify and automate the usage, yet in a year or two, there were already almost ten companies established, whose aim was to help coworkings work properly.

Any innovation being brought to the industry immediately faces competitors, where the point is, that the number of them is critically low for a short period of time. That's what helps the blue ocean success - much less competition.

b. Red Ocean

The marketing strategy described above says about the market with the minimum of competitors, so consequently, Red Ocean stands for the market, which is already filled, and where “all the roles are taken”.

But it doesn't mean, that there's no point in making business here. Vice versa, the fulfillment of the market makes you think, that there is a big demand, which is true. There's always the space for more and more supply, and the roads of such businesses are walked by a numerous amount of people, that makes it much easier to start and grow. Let's take an example of the usual grocery shop in every neighborhood. The step-by-step plan of how to start such a business and how to maintain it can be found easily on the internet. The people who did this can share their experiences with you. Just rent the space, find the suppliers of food, manage the 2-3 weekly supplies, employ two cashiers, and that's almost everything. The point here is that with the sufficient amount of budget, Red Ocean lets you take the niche and own a business.

3. Project lifetime

As long as in this document we are talking only about the IT products, we can simplify a little, because they all share a quite similar lifetime plan and separated by the same sections.

In order to simplify the explanation, let's break the global lifetime into two periods: **before** and **after** the launch. The launch is the time the project goes live, is introduced to the world.

Before.

It all starts with the idea. The importance here stands in correctly deciding if the idea is rather good and deserves developing or not. A common issue is faced by a lot of entrepreneurs and developers when they don't spend enough time carrying the idea X out in order to know if it's worth it at all. To find out the weight of one's ideas it is mandatory to ask the correct questions. They usually depend on the niche it belongs to, but some of them are global. "Who will it help?", "How will it help?", "Why is this better than that?" , "Is the approximate cost relevant?", etc.

Moreover, to improve the idea, the teams often practice brainstorming techniques or try to find another angle of view at the problem.

After.

After the idea is fixed and the whole team (it can be 1, 2 or any amount of people) knows the goal, the fun part begins.

Before starting the development process, the usual mistake is not looking through the market and history to find out if such projects exist or failed.

It's also important to gather information from the demanders (target audience).

At the moment, when all the cards are on the table, information is gathered, target audience is chosen and questioned, problems to solve are found, the development process can be started.

As it goes with the startups, they are usually founded by a group of friends, it is important to set the roles at the team. There has to be the Project Manager to monitor the dev process, set and check tasks, work with the operation manager.

4. Where to start?

a. Team

The startup team creation is the most important part. 63% of the failed startups say, that they had issues inside the team and they weren't managed properly. The team may consist of two people or more, but its crucial to set the responsibilities beforehand not to face problems caused by the lack of management.

In this coursework, we will talk about the startup “andcards”. They create the software for coworking spaces to help them manage and interact with residents properly. The managing team of andcards is a group of 3. CEO, CTO, and a DB manager. They also hired a few specialists for marketing and development, but executive decisions are not made by them.

b. Creation

The process of development takes a lot of time and effort. To start with one needs a budget to supply startup for at the beginning. The developers create MVP (minimum value product), while the operations manager is searching for opportunities.

Important: It doesn't matter how great the product is, without the correct distribution it won't blow up.

Fortunately, startups attract investors like the honey does with the bees. Just take part in a few conferences, apply for acceleration programs and the investors will find you on their own, this part will be reviewed later.

c. Distribution

Once the project or either the MVP is ready, the most important part begins - distribution.

First comes the auditory of friends or the people you know or have a reference with. This part will help you get the most sincere feedback to upgrade the product. If your product is B2B, it's advised to start with the local companies with the reference.

When the feedback is gathered and applied, the part of showing off begins.

If the project or the team has the necessary means for launch, it is advised to hire the marketologist to help. Marketing tasks sound easy - make somebody know about your product. It may begin with the advertisements or own blog, or the guest posts with the backlinks. There are quite enough ways to show off. The marketologist's task also consists of finding useful conferences, shows, events, where the targeting audience will be. For example, the andcards team took part in The Next Web 2019 exhibition in Amsterdam. The event's mission is to let startups talk about themselves. Each one had its own booth with the sales team ready and willing to sell their product. The visitors though usually are the investors or businessmen looking for opportunities.

So, to tighten things up, startups ought to: advertise, write blogs, visit events, look for investors.

d. Maintenance and upgrades

During the whole product lifetime, there are lots of issues to face.

The stability of the product during the first few years is quite important to hold the new customers gained. If you are over ten years at the market, your long-term

customers will forgive the stability issues, but in case of startups, any mistake can be crucial. In order to prevent such cases, or, at least figure them out quickly, the DevOps team is constructed. It can be the CTO himself if the team is small. The point is to react to the issues as soon as they arrive. In andcards, the CTO had the type of connection for unexpected situations and was ready to put the product up at any time of the day or night.

When it comes to upgrades, you need to know a certain line. The line stands in separating what the customer really needs and what he wants. That's a common mistake made by startups - adding everything their customers ask, not to lose them. Sometimes customers may give you great ideas to improve, but usually, it is totally wrong things to create "just because".

Listen to your customers, but filter the requests, create DevOps and follow the roadmap.

5. Sales

The sales part is quite the most important here, it works in connection with the marketing to make things right. The sales team should be in line with the dev team too, in order to mind features coming next and issues to avoid. In this chapter, we will describe the full sales process as the example of “andcards” company.

The first thing to talk about - sales pipeline. That’s the imaginary path the lead will follow until becoming a customer.

The pipeline is: **Lead In -> Contact made -> Demo held -> Contract sent -> Purchase finished**

Lead-in

The first stage, gathering the database of leads. Lead is a person, or an executive figure of the company, which might be interested in purchasing the product. The sales manager has to spend some time preparing the database of leads to work with. In andcards, the sales team separated leads by countries. Starting with countries with most purchasing ability, the database is fulfilled with companies and figures. Crucial is to find the correct person at the company. It has to be either the CEO, CTO, or another executive position, who can decide to buy the product.

Just like anything to be done, there are a few ways to gather leads. Depending on the type of target audience, or type of persons to connect, it can be chosen to use LinkedIn, email addresses, phone numbers.

Once the lead list is created, the sales team comes to the next part of the pipeline.

Contact made

Let’s go through every type of outreach, depending on the type of leads.

1. LinkedIn

LinkedIn contacts are useful for a quick and easy type of outreach. It is a less formal, yet quicker way of communication. Usually, this contact type is used by the CEO to connect with other CEO's, as they are on the same boat and may exchange services or products they provide. It doesn't mean though, that exactly the general director has to do outreach, the sales managers can use the account. One of the important tools for LinkedIn outreach is PhantomBuster.

2. Email

This type of outreach is one of the most commonly used worldwide. You probably have noticed your email box full of trash emails, which are usually separated automatically. Though, email outreach is quite simple. One can get email of the lead from Facebook, LinkedIn page. Even from the website you can scrape the owner's email, if it is mentioned somewhere. Email is a trash box, collecting everything, but also it is the most business-alike type of conversation. During the email outreach, the email heading is most crucial. People read the email theme first, only then they check the inside of the email. In order to gather emails, the tool Hunter.io might be useful, the same as Phantombuster, listed above.

3. Phone

Phone calls are named the most aggressive sales of all. You probably have seen the Wolf Street workers calling people non-stop, and making a lot of sales. This one is called "Cold calling". It's cold because the person isn't expecting a call and isn't ready to purchase anything, though it is the point of a call.

Usually, cold calling is used in B2B sales, such as the business market, stock market, etc.

Demo held

Demo also called as a presentation, the culmination of the sales process needs to happen here. A demo is an important act of this sales show, so preparation is used. In case of selling a SaaS, demo is a show-off of the product you represent. It can either be held as a live meeting with the lead, or the online call with screen sharing. Both ways work well. The seller company representative has to lead the conversation, yet give enough space for the customer, he has to believe in the greatness of the product and share this belief. Sales is not about selling something the person doesn't need, it's about creating the need for your product in the eyes of a customer.

Let's describe the common demo-call. The meeting begins with the sales finding out pain points of the customer, he needs to know as much as possible, yet also he needs to process this information in order to turn it into a plus of a product.

Once the beginning is passed, the sales representative begins to show the product/service, simultaneously leading the conversation with questions as "What do you think about this?", "How do you like such a feature".

At the end of such presentation, the bullet points are checked in, they have to solve the problems the customer shared at the beginning, and a little extra.

A little extra - something that makes people buy your product. The product can be just OK, but also the customers will just buy it. In case you have something special, the customer will enjoy, he will share this experience, get you referral clients and build customer network without your interruption.

Contract sent

This part of the pipeline is the grand finale. The contract to send has to possess any information, required during the users' usage of the product, terms and conditions, obligations and else. During this stage both sides come up with all the add-ons, discussed.

6. Technical Part

1. The app “Quarantine”

When we came up with the idea of this app, there were no questionings about the development process. The team of two great developers took it to their side. We decided to create a simple yet understandable UX design. Using the native guidelines, the design was built.

The front-end of the app is created with React Native. The dev process took not much time, meaning that the great product doesn't actually have to be complicated.

The idea of the user route us pretty simple: enter the app, log in with Google, Instagram or Facebook, use the app.

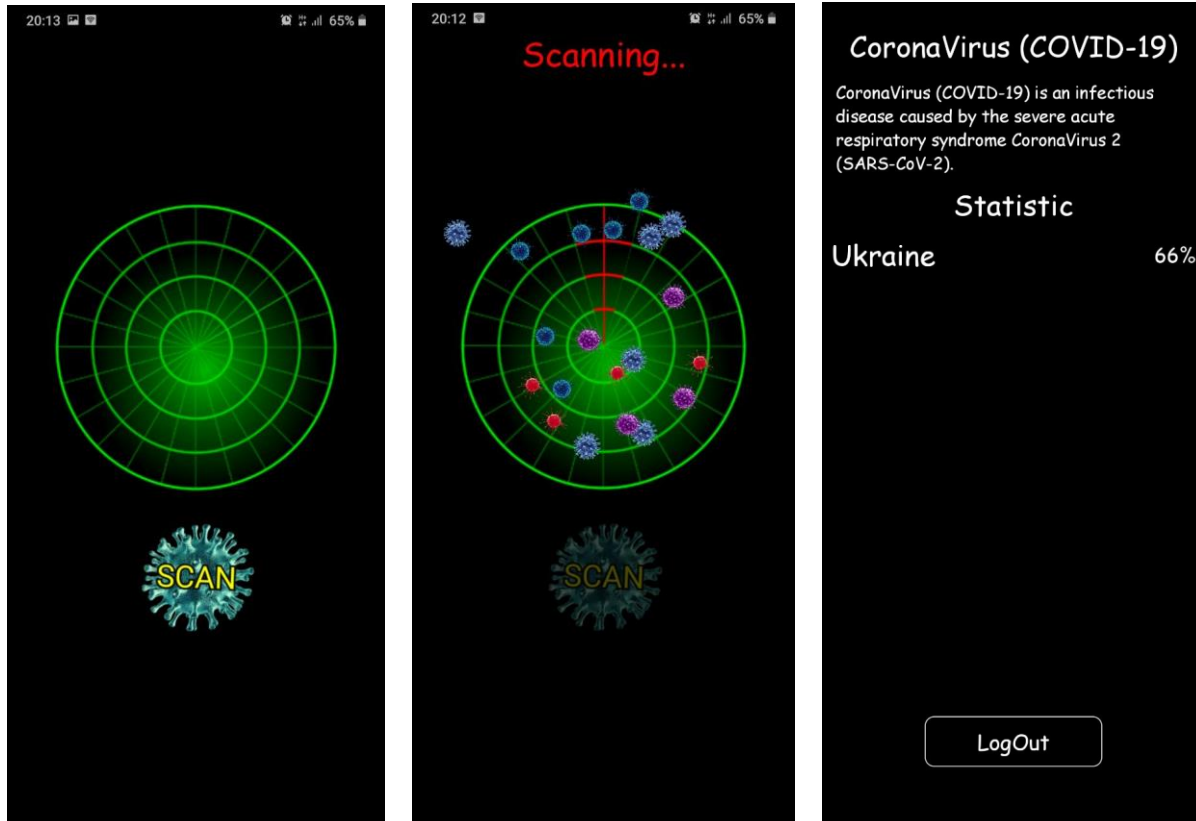
The features we decided to add was: Face scan, Location scan, game to destroy the viruses, easy coronavirus test. We also added the country statistics to the app, where you could see the number of virus outbreaks in your own country.

Considering this, we connected the location services and camera to calculate the possible virus catch probability.

The roadmap of the product was to add the surroundings scan and simplify the scan process of the face.

The back-end part of the app was created by the bond of the Node JS + MongoDB database.

The creation of the app took up three weeks. The visuals can be seen at the screenshots below.



Features description

A face scan is created with the help of the RN camera library. The face was pictured by the camera and with the help of the location services we created the almost random number to show on the screen for the person.

Due to the short development terms, caused by the urgent need of launching the app, we wanted to simplify the process.

Location scan was also created with the idea of measuring the distance of the closest virus outbreak and showing the virus catch probability, considering the distance and country statistics.

Social network sharing. We decided to add this feature as an awesome marketing move. In case the app is downloaded and used by a certain amount of people, they would like to share their virus probability in social media, like Instagram and Facebook, while helping us raise the awareness of such a product.

Simple “destroy the virus game” was made in addition to the location scan. While we check location data and calculate, the user can play a game cilling the viruses in the meantime.

2. Distribution of the app

Firstly we decided, who is the target audience. Children, bored at home and people, sharing masks on Instagram.

For this decision, we checked the top similar apps, whose purpose is just fun and no other advantages. The statistics were pleasing - over 1 mil downloads on Google Play.



Next came the advertisement. In order to promote our app, we decided to use Google ads, as suggested. The GAdds setting is not the tough work, it is tough to decide the audience. Considering this was done, came the finale of the product. Send it to the Google Play store. The verification process took a week, due to the quarantine. In the end, we got an unpleasant reply. Our app was prohibited to show on Google Play. This happened because the name of the app was previously set “Coronavirus Scanner”. After the redesign and renaming, we started doing the same.

The name was changed to “Quarantine”, the app was almost the same, yet had no mention of the coronavirus.

Yet with all these changes applied, we still didn't manage to go through the personal Google Play check and received another decline.

Hi Developers at AnNaVi,

After a recent review, we found that your app Coronavirus Scanner (com.coronavirus.scanner) is not compliant with one or more of our Developer Program Policies. See below for more information about your app's status and how to correct the issue.

	About the Sensitive Events policy We don't allow apps that lack reasonable sensitivity towards or capitalize on a natural disaster, atrocity, conflict, death, or other tragic event.
	App status: Suspended Your app has been suspended and removed due to this policy issue.

Action required: Publish a new compliant version of your app

Here's what to do to help get your app back on Google Play:

1. Read through the [Sensitive Events](#) policy for more details.
2. If it's possible to bring your app into compliance, make appropriate changes to your app. In addition to addressing the issue identified above, you may also want to check your app's store listing for compliance, if applicable.
3. Double check that your app is compliant with all other [Developer Program Policies](#).
4. Sign in to your [Play Console](#) and submit the updated, policy compliant app using a new package name and a new app name.

Please note that additional suspensions of any nature may result in the [termination](#) of your developer account, and investigation and possible termination of related Google accounts.

7. Conclusion

The creation of the project, or developing a startup is a tough line to begin. The colossal work needs to be done before as a preparation, though even more has to be done while maintaining and upgrading. Let's check out the bullet points of the topic:

- Question everything
- Explore the niche
- Explore the target audience
- Choose the team wisely
- Listen to your customers
- Filter customer requests
- Control every process

Taking into consideration the Quarantine app, the lessons learned will help our team during the next projects. The first product created wasn't considered as a one-shot opportunity, vice versa, it was done only for the experience. We have taught ourselves to work as a team perfectly, set up the duties of each team member.

The project types (the red or the blue one) don't affect the teamwork hardly, yet they may change the vector of the process later.

The sales and marketing teams have to work side-by-side, as long as separately they both cannot achieve the goals set.

The customers' feedback is important, of course, but also it may cause irreversible issues if one doesn't filter them wisely. For example, the extra feature developed

for one exact customer, which doesn't let you create another feature, important for other customers. This puts you to a decision: loose one long-term customer or gain three new customers.

Staying cold-blooded and questioning everything will help develop the product you envisioned at the beginning.

8. List of the used sources

- React Native documentation - <https://reactnative.dev/docs/getting-started>
- MongoDB documentation - <https://docs.mongodb.com/>
- DigitalOcean documentation - <https://www.digitalocean.com/docs/>
- Google ads tutorial - [GAds Link](#)
- Sales guide - [Ultimate Guide To Building an Audience And Preselling Products and Services - Abdo Riani](#)