

wemeetplace(위밋플레이스)

an interesting app on the Android Market

201935071 An Chihyun

1. Key idea

- When meeting with friends or team members, this application recommends the middle place as a meeting place.

2. Technical Point

- This application uses its own developed algorithm named equidistant-time map. An equidistant-time map is a map that visualizes the distance that can travel over time at a particular point. In other words, it is a timeline map that visually represents time, such as a contour that visually represents height. Calculates the area where each user can move from each starting point for the same amount of time.

3. Discussion Point

- Users can link Kakao Talk, Naver, and Google accounts or create new accounts by email. However, due to the lack of "friend" function, a single user must enter the address of the starting point for all participants in order to determine the place of appointment.

I think it's better to add a "friend" function and invite meeting participants to enter their address of starting point directly in a particular space, or to save address of their starting point to each user's account and use the "friend" function to select the addresses of the meeting participants.

4. Business Strategy

- Usually, it is more likely to generate revenue from companies than from app users.

It could be able to receive a certain amount of promotional expense from the relevant companies for registering them on the "list that users can refer to when they decide

where to meet and find something to enjoy nearby.”

It does not mean that the app receives more money from the company and exposes the company to the top of the list, but simply receives promotional fees for “the company’s exposure” to the category.

5. Why do I introduce this app?

- Last year, I had a team project with similar theme in our algorithm class, and it was interesting that this application was successfully registered on the Play Store and used by many people.

Also, this application recommends appointment places for at least 2 to 10 people through various criteria such as time, distance, minimum transfer, etc., so it can be used in many meetings.

There seems to be a possibility of development due to the improvement of user convenience and the addition of other means of transportation such as car and walking.

Finally, I thought the producer is still passionate about updating the app because they seem to be actively communicating with users recently.

R e p o r t

Interesting app of the Android Market

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The application I will introduce is adguard.



The adguard content blocker is a free app that blocks advertisements from yandex browsers and Samsung Internet mobile browsers on Android devices without root privileges. Aduguard ad blocking does not affect

<https://adguard.com/en/Android-faq.html>

1. Key Idea

When we watch blogs or surf the web, we see several advertisements. It started out that I might not be able to see this ad. For Android versions, there is no need to root because it uses VPN. In addition, ad blocking is applied to all other apps as well as browsers, as it filters the network itself through VPN. Unlike unicorns and adblock browsers that block ads only for one specific browser, in-app ads such as various games can be blocked.

2. Technical Point

There is a rule that filtering HTML itself, which is used to render a site. The difference between Element Hiding provided by other adblock programs is that Element Hiding adds instructions that prevent elements from being loaded and then displayed in the browser, but HTML filtering removes the element from the browser. If you simply hide the elements that contain advertising images, the data required to load the images will be withdrawn. But blocking them with HTML filtering rules will save you data because they do not request downloading the images.

This rule is useful for advertisements loaded through JavaScript. HTML filtering rules block the script element from loading ads. JavaScript is often used to detect ad blocking. In this case, if you block scripts that are mostly used to detect, you can use the site without turning off the advertising blocking tool.

Its advantage is that it can enjoy the effect without turning on VPN through SOCKS5 on Android, allowing it to block advertising through Adguard and bypass HTTPS in Korea at the same time. Adguard has a history of developing it, but there are many disadvantages such as the lack of credibility as VPN is new, the lack of known paid VPNs usually has hundreds to thousands of servers, 43 fewer servers, and limited protocols and lack of functionality.

3. Discussion Point

But Adgard is also not all-around. HTTPS filtering is increasing the number of apps that can't block advertising, and it is reported that if the add guard is installed, it prevents the app from running itself.

4. Business Strategy

It is adguard's business strategy to provide powerful features that are not provided by other advertising blocking programs. The browser extension version is free, and Android and iOS can also be used for free if you only want to block web browser ads. Paid functions may be used for two weeks as a trial version, and the period may be extended to one year or permanently by purchasing a license. The paid version blocks almost all in-app ads, and blocks more than 10,000 tracker, which speeds up more than 40 percent.

REPORT



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과목명 | Mobile programming

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1. Introduction

The application that I want to introduce is Kakao map which is already so popular in South Korea. What makes this application interesting for me is that it has both accuracy and variety on its information. It helps me a lot not only finding a way to new destination but also searching for famous restaurants or tourist attractions. This map has become so important for me that I need this application whenever I go out. In this report, I would like to discuss various features and my thoughts on Kakao map.

2.1. key idea

The key function of Kakao map is a "map". It shows the shortcuts of the way from a departure point to a destination by walk, car, public transportation and even bicycle. It also has a unique function which suggests various themes of dating courses, brunch cafes, and outdoor activities. Another function of this map that I often use is called as "Widget setting". I can set a certain form of widget on my phone by putting the places where I usually go such as home, bus stops, workplace or school. By using this function, I can easily get arrival time of subway or bus. In addition, the main function of this map that I want to mention is an alarm setting. It allows people to know the exact time and place that they have to transfer by showing as an alarm on screen. This point of this map makes a huge difference from other map applications. It guides people to find a way efficiently and also save time.¹

2.2. technical point

In addition to the main functions introduced above, there are many other useful functions. The first feature to introduce is cctv. As cctv video installed on the roadside is provided with real-time video transmission technology, users easily get traffic conditions such as accident, assemblies, and construction sites. The second is the distance measurement function using haversine formula. When user dots two points on the map, it tells the distance between them. This function can be used for surveying design or for measuring the distance to walk. The third is detailed bikeway. It provides many details of the bike path, such as stairs and ramps which are useful for bikers.² The fourth is the navigation function. It provides navigation function along with a general map, so we can meet our needs in all-in-one without installing additional other applications. The function works in conjunction with Kakao navi's data. The fifth is 3D tilting. The 3D tilting function

¹ 카카오맵, 「[카카오맵 APP] 대중교통 승하차 알람 안내」, tistory, 2021.03.10, <https://kakaomap.tistory.com/214>.

² 카카오맵, 「[카카오맵 이용 가이드] 자전거 길찾기 활용법!」, tistory, 2021.03.09, <https://kakaomap.tistory.com/126?category=196346>.

helps you easily identify surrounding features and find your way quickly. The sixth is the cadastral editing chart. This function enables various information such as site number, administration, regional railroad and national land plan, etc. to be obtained.³ The seventh is satellite photo, road view, and sky view. Various and high-quality photos that are differentiated from other maps give users a high sense of satisfaction. Finally, users can share location information and their route for destination with friends through Kakao talk.

2.3. discussion point

I have never experienced difficulties due to functional errors while using Kakao map. However, there is a function that I wish to be added, voice guidance. Navigation inside Kakao map provides voice guidance function, but there is no voice guidance when using pure directions other than navigation. This may be the same for other map applications, but users should keep an eye on the map and pay attention to direction every time when they go to their destination through the walk. It is not only inconvenient for users but also dangerous to look at their cell phones while on the way. As more users use earphones these days, the voice guidance function is expected to be highly used and will provide users with great convenience and safety.

2.4. business strategy

Kakao map has implemented various profit models such as recommendation, reservation, and payment by incorporating regional information into "user location information" that is obtained through map services.⁴ Through a recommendation function, it encourages users to book and pay for the store and earn commission revenue during the reservation and payment phase.⁵ Also, with the development of big data and artificial intelligence (AI), map application is a good means of securing user data for customized service.⁶

3. Conclusion

Through this report, it became a good opportunity to think deeply about topics that I had never thought about, such as technical and discussion points of Kakao map. Investigating technical aspects made to enhance my capabilities as developers. I hope Kakao map to be used by more people with unique and useful functions.

³ 팩트부동산컨설팅, 「네이버지적편집도 보는 방법」, 블로그, 2021.03.09, <https://blog.naver.com/park53350/221456675953>.

⁴ 원태영, 「'한 곳에 집중'네이버 vs '여러 곳 분산'카카오...같은듯 다른 지도앱 전략」, 시사저널 e, 2021.03.10, 1 쪽, <http://www.sisajournal-e.com>.

⁵ Ibid.

⁶ 피 cow, 「왜 IT 기업들은 지도앱을 만들까」, brunch, 2021.03.10, <https://brunch.co.kr/@picow/23>.

Assignment #1

Report of App i interested in Android Market



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■ Key Idea

Basically, afreeca TV has the motto that anyone can broadcast the Internet anytime, anywhere, and whether it is playing games by turning on the broadcast on a PC or smartphone, turning on the cam and talking with the viewer, it only takes on the basic operating principles. Otherwise, you can freely broadcast any content. In addition, if the broadcast goes well, it is possible to generate profits that lead to real money through gift items from viewers, and a full-time BJ has been created.

■ Technical Point

I think afreeca TV is a leader in internet broadcasting technology, and there are many technical points worth paying attention to.

First, afreeca TV optimized Internet broadcasting through PC for the first time. We have built a system that can stably accommodate a large number of viewers.

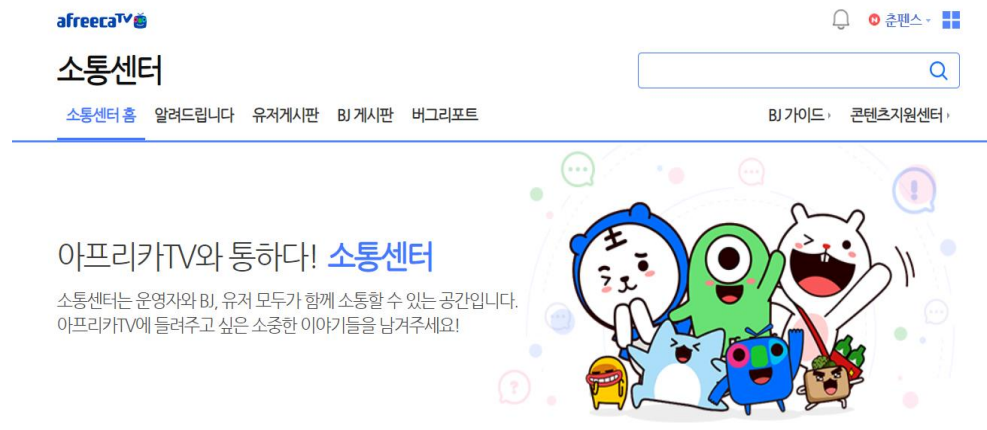
Second, For the first time, a real-time internet broadcasting system through video cam was established, and further, broadcasting through mobile has been developed to a level similar to that of broadcasting through PC.

Third, For Internet broadcasters (BJ), many additional programs such as subtitles, plug-ins, and sound utilities necessary for broadcasting are also being developed. Almost all broadcasters use the programs developed/maintained by afreeca TV not only on afreeca TV, but also on other Internet broadcasting platforms such as YouTube and Twitch.

Discussion Point

I've been thinking about the discussion point for afreeca TV for a long time.

As a result, I found something on afreeca TV that I couldn't easily see on other apps or platforms. It is the communication center.



(src : afreeca Tv homepage '소통센터')

Like a real-time internet broadcast, we operate a page called Communication Center, and you can freely post complaints and suggestions from broadcasters (BJ) and viewers (users), and bugs/errors about the system on this page. Unlike other platforms, this page is actually very active and used by many users. If you activate this communication center more on other platforms (apps) and establish easy accessibility, you will be able to create a good synergy between companies and customers.



Key Idea

- It's free anytime, anywhere, 365 days a year, and with a few people. You can enjoy real-time group chat and 1:1 chat, and you can easily exchange multimedia such as photos, videos, and contacts.
- Not afraid of the road I haven't been to. - Willing to Venture
- Try to change the world for good. – Tech for Good
- Trust to Trust

Technical Point

- It is well optimized to make it available on a variety of devices. It is also available on Android, IOS, and PC. Recently, it is also used on tablet.
- Voice Talk & Face Talk is available, which is free of charge through the network.
- Expand the business using kakaotalk user database. e.g., kakao Page, kakao Game, kakao Pay, etc.
- Users can exchange gifts.

Discussion Point

- Security is important because it is used by many users.

- Because it is a reliable application for users, testing should be done in advance before expanding content. -Trust
- The network environment is the most important because of the properties of sending and receiving messages anytime, anywhere. Network optimization should always be considered.

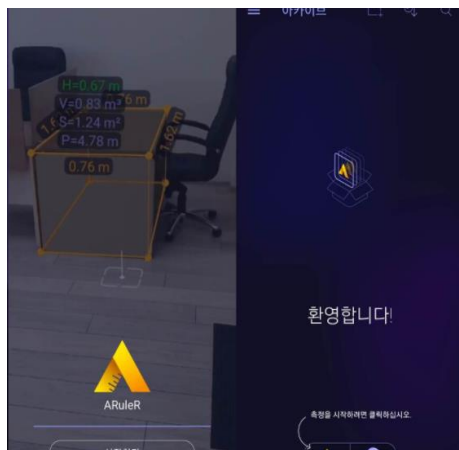
Business Strategy

- Conveniently chat (e.g., free, image transfer, voice talk)
- Abundant chatting (e.g., emoticon, bulletin board function)
- Convenient living (e.g., search function)
- Abundant living (e.g., kakaotalk Wallet, kakao Certificate)

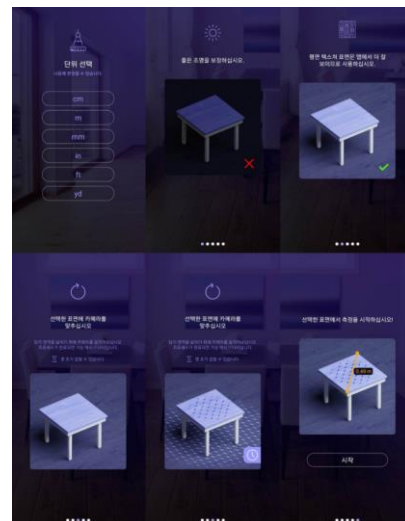


<AR Ruler – Tape Measure & Camera To Plan>

It is an application that can measure length, area, height, angle using AR. In AR Ruler, almost all kinds of length measurements can be identified as AR. However, it is not a perfect figure because it is used to measure length using AR, but it can be useful in daily life if it is not used only for precision measurement purposes because it is not a perfect figure.



<application launch screen>



<how to use the application >

When the basic setting is completed, you can press Start to measure the length or area of the desired object in earnest. At this point, maintaining bright lighting and maintaining proper distance between objects and cell phone cameras recognizes the floor or area, and pressing the button after recognition automatically calculates the length and area horizontally.

About things to measure, draw a point to recognize when planes are not recognized the area can be set for yourself. It this way : the calculated area remain camera moved around the calculations because they want to pay when I measured again after initialization to exist



The basic screen configuration is numbered as follows.

1. Setup screen - provides options for changing unit of measurement, video timer, video sound recording, auto-focus, and rectangular sensing.
2. Ruler - Analog character can be used using a magnetic-cell phone screen
3. Cancel Task - Can be used again even if the recognized part is canceled
4. Revert Task - When checking the length individually, it returns to the previous one.
5. Screenshot - screenshot the current operation
6. Video Recording - Video recording of the measurement process
7. Point Selection - Point Selection allows you to enter the start and end points
8. Change measuring tools - select various measurement options such as point and point, length measurement, angle measurement, etc.

This application is implemented using AR technology and provides so many functions for free that it is thought that there is no such variety of measurement options.

Cell phones are always useful in everyday life because they need to be measured urgently, and they are considered useful in industrial sites and other occupations that require a lot of length. Although measuring length using a tape measure is still common, the longer the measurement, location, and length, the less sophisticated it can be. Therefore, if these AR technologies are more sophisticated and fully implemented so that they can be measured and recognized more conveniently, it will be a very useful technology and application.

APP Market Study

Mobile Programming

201733846 Minjeong Cho

1. Introduction

Report Summary

COVID-19 ➡ Untact Life / Social Distancing

- ➔ New and diverse apps are being released to meet the needs of the era of untact life.
- ➔ As an interesting app, I would like to introduce an AI home training coach app that recognizes users' movements through cameras, coaches exercise posture, and cheers them up.

The reason why I chose

- Untact ➔ home training by watching Youtube
 - Don't know if my posture is right or not
 - Easy to get tired quickly and give up
 - Without time and space constraints
- ➔ I found out while looking for a related app



LikeFit

Motion recognition AI home training coach

Release date 2019.04.12

Downloads 100,000 ↑

Developer WeHealed, Inc.

2. Key Idea

- Recognizes the user's exercise posture recognized by the camera
→ corrects the posture, provides a function to compare and analyze the user's exercise amount.
- By giving challenges, if user complete missions, provide a variety of gifts and benefits.
- Helps users participate more easily and actively through games.
- Provides Real-time coaching service by 'Live PT'.



3. Technical Point

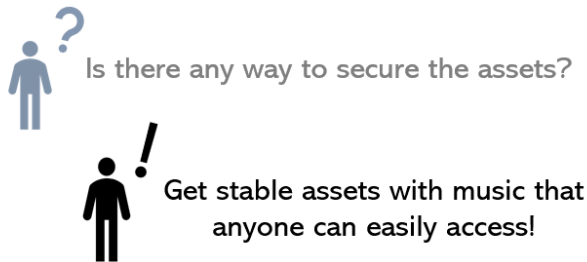
- Interest in health is steadily increasing, but one-way services that watch videos on YouTube or apps and follow them have limitations because it is difficult to receive appropriate feedback on exercise. Therefore, many users use offline PT, but there are high costs and time and space restrictions. On the other hand, the point of differentiation is that AI can compensate for the shortcomings of existing apps because it determines users' exercise posture based on machine learning results and gives feedback to users in real time.
- When a user performs various movements such as squats, lunge, and deadlift, artificial intelligence analyzes the movements in real time, scores them according to the accuracy of their posture, and points are paid every time they fill the target amount. When points are stacked, they can be exchanged for healthcare products at professional malls, which is motivating. The fact that AI coaches do not store exercise data but only collect it is different from existing home training apps. The challenge method of other exercise apps was the structure of authenticating photos or videos to managers, but like fit has the advantage of being more free from the eyes because the camera only recognizes them and does not collect videos.

4. *Business Strategy*

- Personalized health services such as diet, insurance, health information, etc. will be provided.
- planning to develop a service that can produce optimal exercise effect based on the user's exercise information and connect with various IoT devices.
- plans to expand its service to "LikeFit Care", which focuses on professional rehabilitation activities that reduce shoulder and back pain. As part of its digital treatment, it aims to prescribe like fit.
- working with insurance companies to manage customers' movements through healthcare data to reduce insurance loss rates.
- App developer WeHealed is seeking to develop into a digital AI healthcare app, not just a home fitness app, by utilizing its more than 20 million healthcare data.

Key Idea

The days of becoming rich through saving money are over. Is there any way to secure the assets? Stock investment is popular in Korea, recently.



Get stable assets with music that anyone can easily access. The app made with this thought is "Music Cow". It is a meeting of music and finance.



Technical point

"Music Cow" is World's first music copyright trading platform. It is a new concept cultural investment service that allows anyone to co-ownership of copyright fees as a member of the music ecosystem.



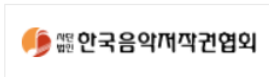
Through copyright sharing, we are drawing a new relationship between creators and listeners. The value of copyright is accurately and reasonably calculated by utilizing big data and AI technologies.

Discussion point

Pros

It can bring steady profits because of its high market share.

It can be trusted and used because it belongs to various associations.



Cons

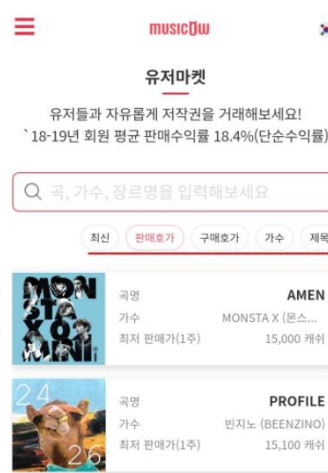
Revenue generation is stable now, but the potential for future development is not high because the market is less likely to grow.

Business Strategy

- Users can earn monthly music royalties
- 2 hour event without notice
- Use of the Reserve: Used to prevent false transaction
- Operation a market that users can buy and sell even after the transaction time is over.



Notify event by messenger



User market that can buy and sell

Report of App Market Study



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subject	Mobile Programming
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student number/ student	201734939 Seokyoung Cho(조석영)
submission date	2021 - 03 - 09

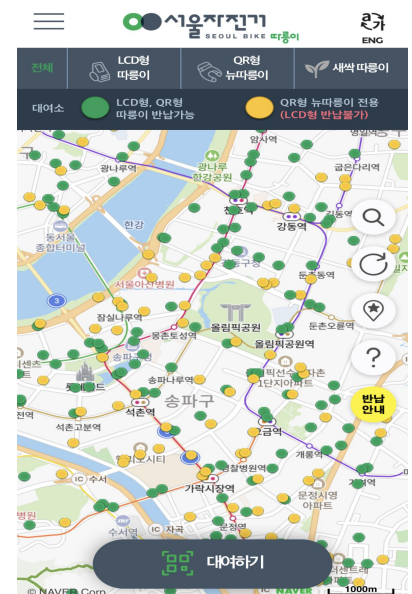
Today I'm going to introduce an application that i was interested in. It is an application called 'Ttareungi(따릉이)'. I live in Seoul, and I use Ttareungi often. While using Ttareungi, I know how comfortable this application is. Therefore I choose Ttareungi as the subject of the report.

The order of the report is as follows. After a brief introduction about Ttareungi, I will describe the key idea. And then, I'll talk about 'What is the technical point of, What is the discussion point of, and What is the business strategy of Ttareungi'.

Ttareungi is an application used when using the Seoul bicycle service. Seoul bicycle service is an unmanned bicycle rental system that anyone, anytime, anywhere can use easily and conveniently. therefore, many people use Ttareungi instead of public transportation.

Ttareungi's key idea is that it is easy to use and highly accessible. When people rent a bicycle, they can ride a bicycle easily and conveniently because they can use QR code. Also if you are a KakaoTalk or naver member, you can use Ttareungi without registering as a member. In other words, it can be seen that the accessibility is high.

As mentioned earlier, one of the various technical points of Ttareungi is QR code. In addition, Ttareungi provides a map linked with Naver. This map shows the user's real-time location and the location of the bicycle rental station. Therefore, it is easy to know where the bicycle rental station is near the user. The map also displays the number of bikes remaining in real time. Thus, users don't need to waste a step because they move based on that data.



As a result, the point of discussion is that Ttareungi is an eco-friendly application. Office workers use Ttareungi for commuting. Not only that, but family, friends, and couples love to use Ttareungi when they hang out. This culture reduces soot. It is also very desirable in that it promotes the health of the people. Because it is the role of Ttareungi application to promote and help this culture, it can be seen that Ttareungi has eco-friendly elements. Therefore, we need to develop an application that promotes such an eco-friendly and healthy culture. As an example, the Nike Run application is also valuable in terms of a healthy culture because it motivates users to run.

Lastly, Ttareungi's business strategy is that Ttareungi is inexpensive and convenient. First of all, there is no cost to use the app. In addition, it is convenient because users can pay for various payment methods such as Naver Pay, simple payment, and Kakao payment. In addition, the application is operated by Seoul City, it aims for the public interest.

I hope that many applications that can help humanity, like Ttareungi, have been developed. I think that in the 21st century, we don't just pursue convenience. We need an application that protects the ecosystem and improves the psychological and physical health of humans.

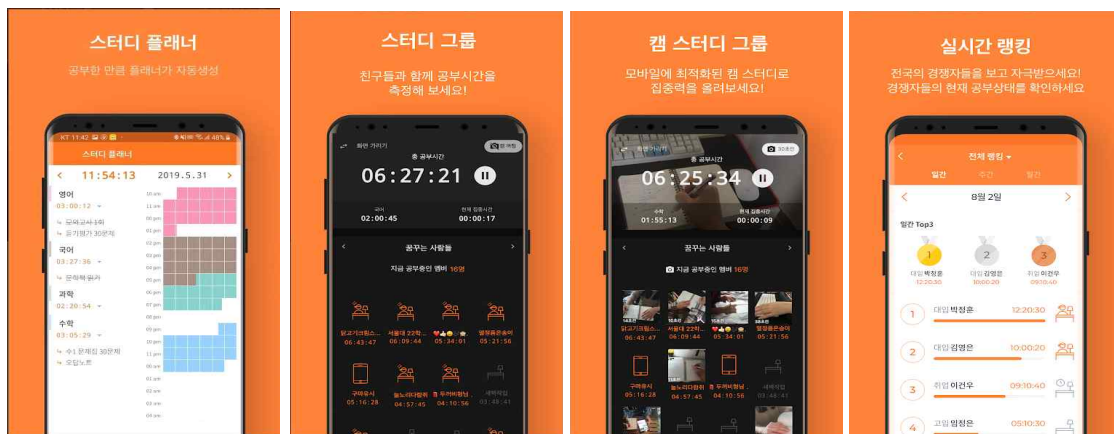
Photo source

“서울자전거 따릉이 - 무인대여시스템”, bike seoul, last modified Mar 4, 2021
accessed Mar 9, 2021, <https://www.bikeseoul.com/main.do?lang=ko>

Introducing app - 열정품은타이머

201735894 최형인

The app that I want to introduce is ‘열정품은타이머’ also know as ‘열품타’. Many students have used timers to measure the amount of time they study. For these students, ‘열품타’ was developed with many additional functions. These pictures are this app’s major functions.



This app provides timer function for each subject that can be added by user, dictionary, group study, cam study and study planner. This useful functions help students in self-directed learning. And the app also provides other people's study time and rankings, so users can see other people's time, get motivated, and study hard.

The technical point of this app is that it prevents the use of other apps while using the timer. When using the timer, users can only use dictionaries and allowed apps, so they can focus more on their studies.

The app also provides a community feature for users to communicate with. Some people think this feature is unnecessary for app. And the app measures the time studied and provides a ranking function. But there is problem such as turning on the timer even when they are not studying. Of course, these problems are not serious flaws in using the app.

Finally, the business strategy of this app is that it provides premium service. In the early days of the app, a private cam study function was provided if users paid for premium services. As the number of students studying at home increased due to COVID-19, the premium service was changed to free. Recently, ads have been inserted into the app, and users can remove ads by paying.

TikTok



Student ID: 201935144

Name: 최윤찬

INDEX

1. Introduction
2. Key Idea
3. Technical Point
4. Discussion Point
5. Business Strategy

1. Introduction

TikTok, is a video-sharing social networking service owned by Chinese company ByteDance. The social media platform is used to make a variety of short-form videos, from genres like dance, comedy, and education, that have a duration from fifteen seconds to one minute (three minutes for some users). TikTok is an international version of Douyin, which was originally released in the Chinese market in September 2016. Later, TikTok was launched in 2017 for iOS and Android in most markets outside of mainland China.

2. Key Idea

There were already several video sharing platforms in the app market. YouTube is a representative example. However, YouTube was mainly popular with long videos. However, TikTok has noticed a high demand for very short videos. The app created with these ideas was a huge success.

3. Technical point

TikTok, is a video-sharing social networking service. Therefore, technologies such as sharing videos, writing comments, and recommending them to users will be needed. There are so many users that they will need a database to store a huge amount of data. It will also be necessary to develop algorithms for efficient recommendations.

4. Discussion Point

TikTok has been controversial. First of all, there was a controversy over excessive spam advertising. The problem was that they advertised tremendous advertisements on YouTube and other media, most of which were criticized for causing irritation because of their low quality and randomness. There was also

controversy over indiscriminate collection of personal information. Many developers have warned of the dangers of TikTok's personal information collection. In addition, South Korea has been fined 180 million won for this issue.

5. Business Strategy

The main age group of TikTok is teenagers. This is mainly because shared videos are childish and cheesy for adults to enjoy. Therefore, TikTok also focuses on marketing strategies for teenagers. TikTok is popular in many countries. Despite various controversies, it is recruiting users through advertisements and word of mouth.

Assignment#1

Report of App Market Study

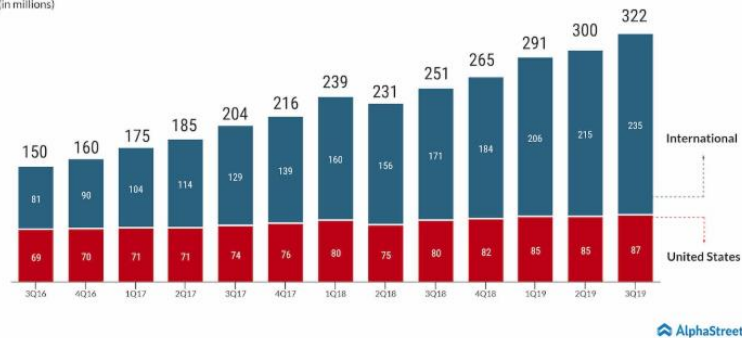
201833299 Heo Seoyoon

1. App name : Pinterest
2. Key Idea : Image-based SNS

It is a system that finds, posts, and shares photos that users want with others. Pinterest has about 300 million¹ users worldwide. Usually, it consists of women in their 20s and 30s with high purchasing power. The name comes from the fact that pictures can be inserted with pins on the image board. After searching for a specific topic, you can collect the pictures you want and create your own photo album.



Pinterest Monthly Active Users Trend
(in millions)



3. Technical Point : User-centric, Social media

A) Search images

Search images for the keyword you want. Then the picture is sorted by quality. The quality determined by Pinterest's own algorithm. When you click on an image that you like, it lets you go to the original page of the picture. Users create related albums by pinning the image you want.

B) Interact with users of similar interests

There are comments and "like" functions after looking at other users' albums. And you can save images or videos uploaded by others on your own board (album). Follow popular topics separately.

4. Discussion Point

A) Copyright

If content is uploaded to Pinterest, users can save it, considering that sharing has been agreed upon. However, source verification is mandatory,

¹ Sources : AlphaStreet.com

except for the private application. It shall not be used for commercial purposes, etc. In addition, when used, source entry is mandatory, requiring special attention from users. Also, I think the app itself should notify these things in advance and mark them separately when showing images.

B) Disgusting image exposure

Often a disgusting image can remain. If it is stored, it will be permanently suspended. I think algorithms such as image recognition should be further developed to prevent such high or hateful images from appearing.

5. Business Strategy

As mentioned above, the main consumers are women in their 20s and 30s. Most users of Pinterest store photos such as fashion and interior and use them for shopping. Therefore, Pinterest is a suitable app for advertising.

A) Buyable Pins

A platform that allows sellers to purchase products directly from Pinterest when they upload products. When users search for a product they want, it is composed of products that can be purchased. According to a study published by Millward Brown, 87% of those who used Pinterest for six months said they had purchased items because of Pinterest.

B) Pincode

It is a QR code. If there is a pin code exist at an offline store, the customer scans it and shows the products in the store at Pinterest.

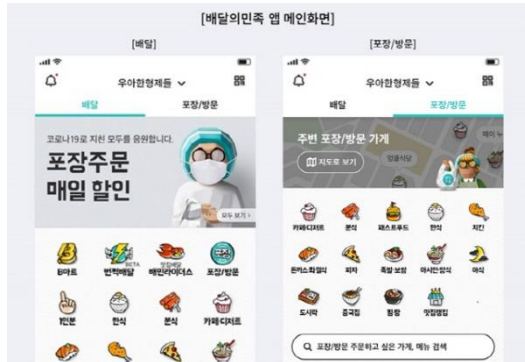
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Assignment#1 – Report of App Market Study

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1. Key Ideas



The app I chose is a '배달의 민족(BAEMIN)'. The reason why I chose this app is because I often use this food delivery app.

'BAEMIN' is the name of a South Korean delivery order service brand operated by 'Woowa Brothers'.

An application for the iPhone was released in June 2010 and an Android version application was released in November 2010. Currently, it maintains an

overwhelming market advantage as the No. 1 domestic delivery app and continues to record high sales growth.

The 'BAEMIN' used IT technology to change the food delivery industry, which had been hardened for a long time. When ordering food delivery, it is easier to find delivery restaurants around using apps instead of leaflets, and thanks to the review, it is easier to choose. With the increase in untact consumption due to Corona, the pre-payment system and packaging/visiting services are being useful.

2. Technical Point

Woowa Brothers started 'AI recommended delivery service' in February 2020. Previously, delivery was a competitive distribution method in which 'BAEMIN' exposed orders to deliverymen near restaurants and received orders first. On the other hand, 'AI recommended delivery service' is a system in which artificial intelligence automatically assigns deliverymen in consideration of delivery source movements and the characteristics of ordered food.

The method used by Woowa Brothers to automatically assign is the greedy algorithm. Greedy algorithms are not 'optimal value' and ways to get the right answer. It is a method that continues to collect methods that are optimal at that moment in multiple paths and finally reaches the 'approximation of the answer'. Woowa Brothers found it difficult to compute the number of cases in all complex real-world situations by system, so they designed AI recommended delivery service in the direction of tracking approximations.

In addition, it is also important to calculate the distance considering the road conditions because

simply drawing a straight line may cause the delivery man to have to cross the mountain. To address this, the elegant brothers used an open-source tool called Open Source Route Machine (OSRM), which implements an algorithm that provides the optimal path.

3. Discussion Point

The 'BAEMIN' has the advantage of having a wider choice because there are far more restaurants registered than other delivery apps, being able to decide on orders after seeing reviews written down by those who already ordered, and being able to order anywhere comfortably, but there are also various issues. One of them is the problem of false reviews. In the 'BAEMIN', you can see other people's reviews through reviews, which have become a factor in determining store sales, such as scoring and ranking. As a result, there are many restaurants that want to raise good reviews through review events.

For high scoring , review manipulators have also appeared, for example, they decided to write a positive review of 18,000 won chicken, receive 23,000 won from the owner and pay for the difference of 5,000 won. Such illegal activities are said to have occurred mainly in corporate-style restaurants with financial leeway.

To solve this problem, the 'BAEMIN' introduced a real-time AI monitoring system that automatically detects false suspected reviews in advance in November 2020. When a user presses the review completion button, it determines whether it is false or not. I believe that the credibility of the review could be increased through the response of the 'BAEMIN'.

4. Business Strategy



The 'BAEMIN' began with the question, 'Who orders delivery food?' They were mostly single-living students, college students, and customers in their 20s and 30s who were in charge of ordering food at work. People in their 20s and 30s preferred trend culture, B-level sentiment, and parody culture. The first strategy of the 'BAEMIN' is to target the main targets in their 20s and 30s and stimulate their emotions with funny and friendly phrases. It also established the concept of 'BAEMIN', from design to character, phrases, and font.

The second strategy of the 'BAEMIN' is a win-win strategy with small business owners. The 'BAEMIN' is conducting various educational programs for small business owners through social contribution activities for the value of co-prosperity. It operates free education programs through "BAEMIN Academy" for small merchants who do not have business know-how.