LOCATION OF THE TEAM
México

SUBMITTED BY
AGUACATES UNIDOS POR MEXICO
Senior Division

TEAM MEMBERS
Edna
Claudia
Giovanna

KAP BUSINESS PLAN
A TECHNOLOGY PROPOSAL FOR
THE TECHNOVATION CHALLENGE 2020
EXECUTIVE SUMMARY

Climate Change

It is said that by 2050 climate change will be the biggest threat to biodiversity in America. So the way venomous animals would cope with it would be by migrating to new latitudes away from tropical areas into densely inhabited locations, which may put 6.7 million more people at risk of suffering bites or stings.

Our Company

Kap is a social enterprise based on an app that allows the prevention of bites or stings of venomous species of scorpions, snakes and spiders in Mexico in order to reduce the number of incidents in the region and encourage people to recognize and learn about the different species present in the country and all along America.

Our Product and target users

What we sell to members of the civil society from ages 16 to more than 50 years-old, either male or female, that live in León, Guanajuato is an app that counts with emergency reports to hospitals and a map of those hospitals so that you would never run out of serum, image recognition using a supervised artificial intelligence model that helps you identify up to 14 different species with your phone camera and counts with more than 20 different species of spiders, snakes and scorpions with their location, characteristics, dangerousness and more.

Likewise, we offer either private or public hospitals medium or large-sized that are located in Leon, Guanajuato, that count with antivenom and also want to improve their medical services, a status and the promotion of their services through their mapping and recommendation to users, which will help them increase their profit by attending to cases of bites or stings as they contribute to social well-being. Moreover, we would also like to offer them a personalized report on statistics of the bites and stings attended, as well as their revenue for the same.

The situation in México

Did you know that Mexico is the country with the highest number of venomous species with up to 80 of them? Besides, it is followed by Brazil with 79 and Australia with 66. Moreover, the panorama at the national level of people suffering from stings and bites of snakes, scorpions and spiders shows an upward trend, since just by comparing 2018 with 2019, cases increased by going from 275 thousand to 357 thousand. Also, in 2019, León, Guanajuato was the city that had the most scorpion bites worldwide, reaching 43,913 cases.

OUR TEAM

GIOVANNA

APP DEVELOPER

She is 18-years-old, passionate about STEAM areas and future engineer, was in charge of the developing process of the app, including coding the sensors used.

CLAUDIA

PROJECT MANAGER

She is an 18-year-old passionate about science and engineering, was in charge of the structural design of the app and also the pitch dialogues.

EDNA

BUSINESS MANAGER

She is a 17-year-old passionate about business and economy of the world, was in charge in the financial, market and business plan.
COMPANY DESCRIPTION

Product and Market

Kap is a social enterprise as it is characterized for being an entrepreneurial venture that is focused on creating a positive social and environmental change, as well as a steady revenue. Therefore, we pursue sustainability on different areas of the company such as being environmentally and financially sustainable.

This enterprise was established in 2020 from our residence city León, Guanajuato, México which, as we mentioned before, is the first place globally while referring to cases of scorpions’ stings.

We decided to create this app because we were worried about the medical care and lack of information of poisonous animals, so we wanted to improve the medical attention of hospitals with these specific cases. Moreover, most of our acquaintances, including, neighbors, friends, mentors and team members had suffered from stings, and also they had faced the problem of not finding the serum quickly, which could have lead them to more serious consequences such as losing any limb.

Objectives

We look forward to introduce an app that gives the complete information about the most relevant kinds of scorpions, spiders and snakes in the region, helping the users prevent and perceive the most common symptoms after the bite or sting. Also, the app is going to contain the closest hospitals in the zone that have the right treatment and medicine available to prevent diseases as consequence of the bite or sting, improving the medical attention of bite or sting cases in our region and later expand throughout Mexico. In this way, we would contribute to the third sustainable development goal of good health and wellbeing and to the fifteenth on life in terrestrial ecosystems.

Mission

Achieve the satisfaction of our users, including members of the civil society and hospitals by providing them with the necessary information and tools that would allow them to prevent stings or bites of venomous terrestrial animals or, on the contrary, speed up the medical attention received and improve emergency protocols regarding these cases, contributing to sustainable development goals and reducing this public health problem in the community.

Vision

In three years, we pursue to become the leading company in the region that incorporates new technological advances in this and other new applications specialized in raising awareness and informing the population and health authorities about the importance and effects of the migratory patterns of venomous species in order to achieve a world with the least amount of accidents due to this cause, while increasing the well-being of current and future generations.

SERVICES

Components and Features:

- Through the app, it is possible to access information about the location, characteristics and dangerousness of 20 species, including snakes, scorpions and spiders.
- You can use a supervised artificial intelligence model to identify around 14 species using your phone camera.
- It is possible to register the name, age and sex of the users and their families to send this information to the emergency room email of the selected hospital within a few clicks.
- Access a map that would help you find hospitals in León, Guanajuato that do have serum available.

Our future goals overview

Among our goals there is to be able to extend our application to poisonous marine species, since it is known that these will also be seen more and more frequently near the coasts and 75.5% of our target users are interested in this feature according to our survey.

We would like to start a ranking of hospitals according to the efficacy and speed of their treatment in bites or stings with respect to the opinions of users.

We also want to expand the mapping of hospitals, first to other municipalities within the state, and later to other states in the country.

GOOD HEALTH AND WELL-BEING

LIFE ON LAND

*The app is currently ready to be available on the Google Play Store for the civil society, the only missing aspect is to set how would be the personalized reports for the hospitals.
MARKET

Market Description

To understand the needs of our target market we surveyed on google a group of more than 100 people. Most of the people we interviewed belonged to the range from 16 to 30 years old and the 72.6% lived in León Guanajuato.

The survey indicates that 94 of the people that answered had found scorpions and spiders frequently during the year. It also tells us that the people frequently found dangerous spiders and scorpions more than snakes at school, which could be dangerous for students.

Likewise, 62.3% of them would not have the certainty of which hospital to go if they have been bitten or stung by some kind of dangerous species.

Survey available on: https://forms.gle/CfpCGzItpABRhAo56

How will our app perform and why?

Due to the survey and our previous investigation, we concluded that the app is required and capable to contribute to this problem, that with the app we would have the opportunity to prevent major consequences when emergencies on stings and bites occur, as well as we could combat the lack of information among citizens regarding this growing problem.

Competitor Analysis

Although, in the survey we asked if they’ve used any similar app or website that may help identify the species around them, 92.5% answer that they had not used a similar app. The only resources that exist for this region are the recommendations that the government proposes, such as campaigns of prevention.

Actually, there exist only a few apps that might have similar characteristics, between those, we found the following ones:

Bug Bite AI: which identifies common bug bites in real time using a trained tensor flow model and helps people in the process to know what to do if some bug bites them or if they have an unknown irritation in their skin. The strengths of this app are that it has a real-time response and that it also allows to take a picture of the skin, but it doesn’t tell the user where to go in order to be attended.

Redtox: which although having a wide range of species to learn about and counting with a huge list of hospitals, it doesn’t filter the ones that do have serum available, likewise its interface might seem confusing and not well-designed.

Poison patrol: On this app, users take a picture of the animal and it is capable of identifying the most common poisonous animals in the state of Alabama by calling the Regional Poison Control Center. In this sense, even if you get a response from a professional, the problem is that the user may not get it instantaneously.
ADVANTAGES AND CHANGES IN RESPONSE TO COMPETITOR ANALYSIS

Some of the advantages that Kap includes are counting with a greater diversity of species on which to learn and recognize, since it not only covers one type of animal, but three, which are not only found in Mexico, but throughout the Americas. Likewise, by having the filter for only hospitals that have serum, it allows users to go directly to where they will find what they need without wasting time by not finding the serum even if the hospital is nearby. Finally, it helps users by obtaining an immediate response on the top 3 species of which their sting could be treated using artificial intelligence.

MARKETING PLAN

To promote our app, we would use digital marketing such as Google Ad Works and even YouTube Ads to reach our target customers, identifying the tastes of the hospitals and users to make an appropriate and suitable publicity.

Also, the app would be available for free in Google Play and, in the future, we would like to develop an IOS version so that it can be available on the App store for the people that want to download it. Once the users download it, they can register on the emergency service with their name, age, and sex, but this feature is optional.

Likewise, as part of our value proposal we would be giving the associated hospitals personalized reports with the main statistics of dangerous species bites reported through the app and the advantage profits they obtained monthly with our service.

Moreover, we would be giving information of the hospitals through the app and rank each of them according to the attention and efficiency offered to the patients, this according to users’ ratings.

Promotion of the app

As previously mentioned, our strategy would be based on digital marketing through social networks and tools such as Google AdWords, YouTube AdWords and mainly Instagram through our company profile available on the following link, where we will post our current services and some caution recommendations for bites or stings. This, as 80% of our target users answered that the mean by which they could most likely find out about such an application was by this social network: https://www.instagram.com/kap_solutions/?hl=es-la

Also, we count with a web page https://kapolutions.weebly.com/ which would be promoted through social networks and our team would be available for answering doubts and requirement of our services to medical attention with the main purpose of improving them. Likewise, we are open to look for partnership offerings through this media.

Finally, we changed our first attempt on promoting the app through WhatsApp because the postcards didn’t get enough response, nor on Instagram were we have a more visual interface to work with.

*The first image is the first section of the website’s main screen, the second alludes to the part where we posted the screenshots of the app on the same screen, the third one shows the first section of the "About the problem" screen and the last one displays our contact information."
FUNCTIONING OF THE COMPANY

In this case, within the team, the software developer and the project manager will agree on the programming and inclusion of the new functions required by the users according to the data from the periodic surveys carried out by the business manager between hospitals and civil society. In this way, the new functions will be generated and the updates will be released through the Google Play Store and App Store.

In this sense, we will try to notify users via notifications from the same application, Instagram and the website. Once the update is downloaded, users will be able to continue using the app as usual after having a short tutorial on the new features. In this way, after three to four weeks of use, the business manager will carry out another survey to collect customer opinions, in order to restart the process again.

FINANCIAL PLAN & PROJECTIONS

Financial Plan

As part of our financial plan, Kap is intended to be completely free and available on Google Play and App store due to the fact that our most important goal is to be known by people and hospitals, start offering our services and help the improvement of the stings and bites attention to private hospitals by the cost of $3,000 MXN per month and for public hospitals we are giving a discount of about 66% monthly which leads us to the price of $1,020 MXN.

- Current financial state: As the application has not yet been launched, we still do not have a certain monetary budget. However, we are in search of alliances and investors that can provide us with intellectual, and even monetary support, referring to the latter only if they want to.

- First year: At first, we are expecting to offer our services to 5 private hospitals and 3 public hospitals during the year. As investors of this project, the first month of the use of the app fee would not be charged but the profit for the subsequent months of use would be employed on Instagram marketing to sustain the app. At the end of the first productive year we expect having a total income of $169,000 MXN.

- Second year: We are expecting to offer our services to 6 private and 7 public hospitals. By now, we would have $301,000 MX from our services and we would plan to invest in more AI functions, specifically on Microsoft Azure, and marketing to the app through Google Ads to later expand to the whole state of Guanajuato.

- Third year: By the third year we are expecting to give our service to 10 public and 8 private hospitals, expand our services to the whole state, make improvements with the mapping and big data tools, specifically incorporating Carto, and continue to invest on marketing of our app through YouTube Ads.

- Fourth year: 10 private and 12 public hospitals over the state and later on expand our services nationally.

- Fifth year: By this year we are expecting to start expanding nationally to 15 private and 18 public hospitals.

Financial Projections

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BIBLIOGRAPHY