



Visit: <http://vicsafe.tk>

PRODUCT DOCUMENT

ABSTRACT

This document is for providing a high-level overview of the VicSafe website and its development for future sponsors.

TA21 Lightning Coders

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Introduction

This is a product document that was prepared to provide a high-level overview of the VicSafe website and its development. As this document provides a concise summary of the project, more detailed information on the technical build and the future potential of the website can be found in the support document and maintenance document.

Fundamentals

Our product aims to help international students planning to arrive in Victoria and already studying in Victoria to access the safety information including locating the police station and community legal center immediately while they are studying and living in Victoria.

The important feature of our product includes:

- search for the safety rating for each area of Victoria,
- search for the police station and community legal centers near their location,
- safety guide and tips regarding Victorian laws and rights to help international students address the potential threats and crimes.

Access to our website:

Website URL: <http://vicsafe.tk/>

Password: ta21

Product video link:

<https://youtu.be/nNg8fvyb4VM>

Unique features

Our product provides comprehensive features and services to the international students in Victoria in which the users can find important information on a convenient platform. The information available on the website will help the user learn more about how to ensure their safety while living and studying in Victoria. The search function provides multiple choices for the user to search by postcode, area name, or the university campus to find the nearest service. Additionally, we provide the route for the user from their location to the service location with the estimated time taken which helps the user in a more convenient way to reach the service they want. Users can directly search the safety rating for a particular area and police station and legal center on the map by typing the postcode or name of the area they are interested in with the contact detail for the nearest service which is very user friendly.

Target audience

International students in Victoria have been victims of attempted robberies near their university campus. More attention has been paid to the safety of international students, so it is essential to help international students stay safe. The target audience of our product are university international students between the ages 18 to 29 who are new to Victoria.

Required skills and resources

As the scope of this project is limited to utilising free resources, there have been no costs made in developing the VicSafe website. All technology including AWS hosting services, plugins, and the WordPress editor were used through free subscription services.

Our product operates in WordPress which provides the services for operating. As WordPress is not too complicated to use, unskilled people can also learn to use it in a short amount of time.

Our product may require a group of five members from different disciplines to be in charge of the day-to-day operations and maintenance of the website. Each member should have a role in either:

- Back-end programming
- Front-end programming
- UI/UX Design
- Data management
- Product planning and User research

Dataset and source of data

The dataset and the source of the dataset used in our product are listed below:

- Community Legal Centers in Victoria- The data collected was available as a PDF in <https://clcs.org.au/sites/default/files/202103/Member%20org%20directory%20March%202021.pdf>
- Police Stations in Victoria: Data for the police stations was available in the website: <https://www.police.vic.gov.au/location>
- Open street map: <https://api.openstreetmap.org/>
 - Crime data was obtained as an Excel spreadsheet from <https://www.crimestatistics.vic.gov.au/crime-statistics/latest-crime-data-by-area>.
- Victorian University data was obtained from <https://universityreviews.com.au/list-of-universities/victori>

The dataset of crime statistic data, community legal centers in Victoria updated every 3 months, open street map updated daily.

Risk and privacy issue

The major risk would be the database error which may lead to the website to crash. This risk requires skilled back-end people to handle and check the database.

Our application does not store any privacy data from the client, but there is still a possibility that some malicious attackers change the data stored in our database, which will lead to incorrect analysis results and advice.

- **SQL injection:** Our application requires users to input several information to obtain crime static data, which can be exploited by the attacker to apply SQL injection.
- **Mitigation measure:** Using prepared statements when performing CRUD operation to avoid SQL injection.
- **DDOS attack:** Attackers may perform DDOS attack to our server, and cause temporary interruption to our service.
- **Mitigation measure:** Using defend software to monitor the state of our server, and detect abnormal request surge, block suspicious IP addresses.

Testing Procedures

For the VicSafe website, each function that has been developed in their respective iterations has been tested on its reliability through Integrity testing at the end of each iteration. In each integrity test, the functions of the website were tested against a set of acceptance criteria that have been documented at the beginning of each iteration. These acceptance criteria were drafted in collaboration between the team members who were responsible for developing the functions and the team members who were responsible for maintaining project governance and documentation. The details of the testing procedures utilised for this project are further elaborated in the support and maintenance documents.

Support Document and Maintenance Document

Information on how to maintain the day-to-day running of the VicSafe website can be found in the support document. As for how much potential is there for future improvements and changes to the website, this will be discussed further in the maintenance document. Each of these documents are included in this handover package.

The Support document will be a formal document outlining the key information that is necessary to know how to maintain the running of the VicSafe website by personnel who have taken over the responsibility of the website.

The Maintenance document will be a formal document outlining the potential ways the website can be improved and grow in the future. This document also provides maintenance personnel with the information necessary to maintain the website's system effectively.

Future Potential

The VicSafe website is focused on informing and guiding international university students studying and living in Victoria. For that reason, the functionalities of the website are closely aligned with providing information on which authorities they can go to for legal advice or assistance. The website has the potential to grow and improve in the future. While the scope of the application was limited to protecting the safety of international students attending university while living in Victoria, the website can extend its scope to provide additional services to students that can assist them throughout their stay in Victoria. This can include providing the average renting price within a given local government area which can be displayed on the map in the Safety Rating webpage. This could be a feature worth considering in this website's future development as international students have also shown concern over having an affordable place to live in Victoria. The Guide webpages and Local Community webpages can also be expanded to include other crimes, legal information, and information on local communities of other ethnicities and cultures students could be interested in learning about. For more details on the VicSafe website's future potential, they can be found in the Maintenance document.

For our sponsors

Throughout the COVID-19 pandemic, international students currently studying in Victoria were put at risk in terms of financial and personal security as they were isolated from their neighbours and peers. Not only have many international students been forced to fly back to their home country, but many international students who have been living on their own in Victoria have also been reported to be involved in unfair living situations, and racist verbal and physical abuse due to the stigma formed around the origins of COVID-19.

As sponsors of this project, you may share concerns as the responsibility in ensuring the safety and protection of students, as well as international students, falls on several authorities within Australia, where international students are an important part of our community.

The Federal Education Minister has considered increasing the involvement of law enforcement agencies and improving their education on the dangers on campus and off-campus. For education providers, informing the international students on what support services are available to them has also become a priority so students know what to do to receive support when they become a victim.

It is for these reasons that our team has created the VicSafe website to assist international students currently living in Victoria and studying at Victorian universities which can inform them on ways to stay safe and their legal rights in Victoria, as well as provide services that can allow them to make informed decisions on where to live and where they can go for free legal help.

The Team members of Lightning Coders

Behind the development of VicSafe is team Lightning Coders, which is a group made up of five members with each person having a role in the project management, coding, data management, and UI/UX design of the website. Each member came from different backgrounds including Master of IT, Master of Cybersecurity, Master of Data Science, and Master of Business Information Systems. Our team's core competencies are our effective, efficient, and open communication within the team, and doing our best to achieve the goals we have set before us. You can view each member's LinkedIn profile for more details on their background experience, skills, and strengths.

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