Intellectual property

DPITL – Long Covid Mapper case

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As an IT and IP consultant, I will make sure to specify the different methods how the company of Mr. Solid can protect his application “Long COVID Mapper” in all aspects, so as not to fear imitation. The document will relate the problems of intellectual property, source code and security vulnerabilities.

# Intellectual property

Main principle of intellectual property, and the capability of something becoming unique and secured via legal bases, the idea should have its own identity, be unique, and come from the original author. In this case, Mr. Solid emphasizes that the “Long COVID Mapper” is the first application that provides the functionality amongst other ones, hence it allows the author to apply for additional property features.

## Copyright

The application represents a unique piece of code that is the only one in its class, and comes from the original author, which empowers Mr. Solid to acquire copyright rights over the software he created, as it is a computer program. Additionally, it is important to mention that copyright can be acquired over the source code, and the look of the software, but the functionality can become protected by acquiring a patent. To do this, Mr. Solid would have to address special facilities that verify and provide copyright, which can be specific to the case, or country, or other factors.

## Trademark

The name of the application “Long COVID Mapper” can be protected by the rules of trademark. The name of the application can be protected just in case the author addresses competent authorities, and in case all the rules and requirements apply. In this case, the name will be used to distinguish one application from another, additionally considering that the application provides unique functionality. It is also important to mention that the trademark needs to be registered under its own category, and a price will have to be paid. However, it is possible that the inclusion of the word “COVID” or “Long COVID” can be misleading, hence making it harder or even impossible to register the name as a unique trademark, and it will require changes. To avoid these problems, it is needed to conduct research into the availability of this name.

# Source code

It is a very important detail that Mr. Solid specified the usage of an open-source project code in his project, and especially the license under which the project was written. This brings more details, or problems to the case, as the license represented is GNU GPLv3, which means that any derivative work from another project licensed under such a license, should be made available and licensed under the same license and with the same terms and conditions. This issue should be addressed by Mr. Solid, as it is the author’s right to change the project to make it fully proprietary or decide to assess the open-source option. Both solutions have their own possibilities, advantages, and disadvantages.

Release the application under the same license and make the code publicly available:

* Advantages
  + Multiple contributions from the open-source community.
  + Better adoption by the community, as it will bring in more trust.
* Disadvantages
  + Loss of multiple commercial opportunities, and potential copyright problems.
  + Potential loss of control over the redistribution of the code/application, or other changes for the code.
  + Potential vulnerabilities that may appear as a result of contributor’s code implementation.

Remove the code borrowed from the project, and write own solution and hence getting rid of the license terms:

* Advantages
  + Full control over the implementation of the own solutions.
  + Possibility to patent or copyright the application.
  + Commercialization of the project.
* Disadvantages
  + Lack of contributions and need for self-development of the project on a regular basis.
  + Potential bugs, vulnerabilities, and lack of tests.
  + Additional expenses based on other developers, testers, security specialists, and many other specialists.

Considering the options above, the author is free to decide upon what to do and what actions to take regarding the application, to make it profitable, secure, or open-sourced and highly accepted for the community.

# Security vulnerabilities

As with any application, there is always a possible security vulnerability that will have to be tackled before it grows into a disaster for the company, or individual. Multiple applications constantly get abused by a variety of unethical hackers. Hence, it is important to tackle the possible issues by implementing good practices for secure, and consistent development of the application. Some of which are:

**Implementation of best coding/programming practices** – it is crucial to make sure that the information that circulates through the application is secured, and that the processes are running smoothly and uninterruptedly. Hence, there is a need to implement encryption where possible, hashing, better algorithms, error handling, validation of data being transferred/accepted. This requires multiple iterations of development and hence additional time, or resources spent.

**Regular penetration tests, vulnerability scans** – this process will ensure to look out for potential threats or bugs in the application, and possible ways to solve the issue. However, this again will require additional extensive time being spent and money but will ensure that the application has better optimization and security improvements rather than other projects.

Considering the above mitigations for the future of the application, Mr. Solid should consider the opportunities and possibilities, in case he decides to choose one of the paths mentioned in the source code paragraph, and hence get a solution that will be beneficial for himself.