

# Software Piracy Protection using Machine Learning

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**Abstract:** *Software piracy has been major issue for software industries. Piracy has become so prevalent over the Internet that poses a major threat to software product companies. With the help of malicious codes and programs, hackers or an intruder can gain access to Software the system and steal the information. Piracy by users is generally believed to harm both software firms (through lower profits) and buying customers (through higher prices). This research paper is intended to maintain software piracy protection and assures that it is being accessed only by the authenticated users.*

**Keywords:** Machine Learning, Python , Recurrent Neural Network ,Long Short Term Memory.

## I. INTRODUCTION

Software is a necessary requirement in today's world of technological development. Software piracy becomes major economic concern in today's life hence software anti-piracy is important. Most of the computer users today are aware that unauthorized use and duplication of software is illegal, many users show negligence towards the importance of treating software as valuable Intellectual Property. Piracy has become so prevalent over the Internet that poses a major threat to software product companies.

Pirated software being available on the Internet and economically weak people not being able to afford.

software were the major reasons behind the increasing software piracy issue.

Software piracy continues to grow globally because it is cheap and easy to copy. The effects of this grew are devastating. With the help of malicious codes and programs, hackers or an intruder can gain access to the system and steal the information. Software piracy involves the use or distribution of information without having received expressed permission of the software author. Hence there arises a need to protect the information and products from being plagiarized.

## II. RELATED WORK

### 2.1 AIM & OBJECTIVE

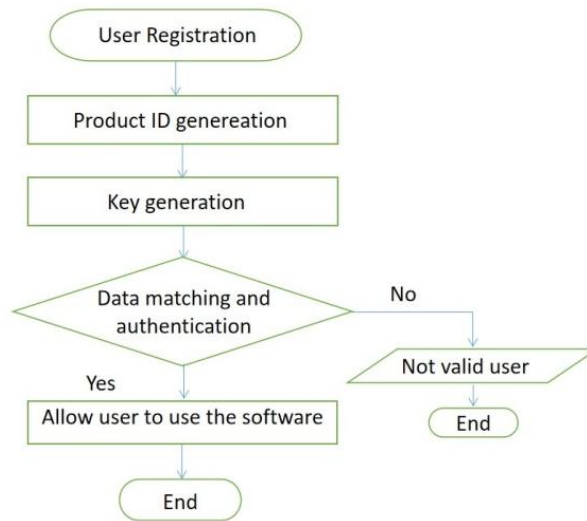
#### A. Aim

This research paper is intended to maintain software copyright protection and assures that it is being accessed only by the authenticated users. Piracy has become so prevalent over the Internet that poses a major threat to e-commerce sites. With the help of malicious codes and programs, hackers or an intruder can gain access to the system and steal the information. Hence there arises a need to protect the information and products from being plagiarized. This research paper is developed for the same purpose to protect the software's ownership of copyright and make transactions securely.

#### B. Objective

- To protect the software's ownership of copyrights.
- To prevent the information and product from being imited.
- To prevent the software and source code being stealed by unauthorized user.
- To provide protection to the software from malicious codes which can implement virus in the system.

**III. CONCEPTUAL DESIGN DATA FLOW DIAGRAM/ BLOCK DIAGRAM/ SYSTEM ARCHITECTURE**



The user have to register on the device. After that the device will read the browser id and generate unique user id. After that step the user have to login again with the same id and request for a serial key which is provided by the device itself. Device will match all the required information and if all the information is correct then it allows the user to use the software, and if any of the information or any key is not getting matched then it will show an error message to the user. If there would be no protection then anyone could copy and distribute the software and thus steal the copyright ownership. If the software gets pirated then it would lead to loss of revenue and can have a detrimental impact on the company thus this system is useful in making revenues. No one can copy the software or share as it requires an activation code that is different for each individual. Highly robust and secure system.

**IV. CONCLUSION**

Software piracy is an ever-increasing problem of the modern-day software industry. Owing to the evolution in software development and the Internet, software piracy has become a main concern for many software companies. Software companies are confronted with extremely high losses due to the piracy of software. Pirates gain a lot of money by doing business with pirated software, and they do not think what they are doing is a crime. General end-users and the community of the software are not well aware of this serious crime. Even most of the time, end-users and consumers think that it is none of their concern and not an important issue for them to worry about. If an organization is using pirated software, there is a risk of failure of the software, and it might put the organization into a big loss of risk. Open-source software is available, but some of this software needs a proper license from the concerned owner agencies and the user needs to pay for it. Most people cannot afford these license charges which become a burden on them. So they do piracy of the software. On the other hand, people use crack software (registered by the user through unfair way) for their needs as they do not have enough money to pay for licensing the software, although they are aware of the real problems that pirated software have which include upgrades are not available, no assurance of quality and reliability, no technical support, no manuals or documentation, exposure of network to security breaches, and many others.

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