



Encryption Key

Third Semester -2023

Cyber Security
Group: Four

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ABSTRACT

THE MEANING OF CRYPTOGRAPHY IS GENERAL

Encryption in cybersecurity means converting data from a readable format to an encrypted one. Encrypted data can be read or processed only after it has been decrypted. Encryption is the basic building block of data security. It is the simplest and most important way to ensure that computer system information is not stolen or read by someone who wants to use it for malicious purposes.

WHAT IS PROBLEM?

The problem for establishing this project lies around the lack of Arab resources that help and contribute to understanding Applied Cryptography and conducting encryption operations automatically, quickly and accurately, and collecting many ciphers in one place, and this project will contribute, with the grace and power of God, to increasing society's awareness of cryptography and scientific excellence among students of cybersecurity at the level of the Kingdom of Saudi Arabia in particular and at the level of the Arab world in general.

WHY THERE IS A PROBLEM?

Usually, the methods of education in the Applied Cryptography course differ from one trainer to another, and this distracts the focus of male and female students in understanding this important course in the specialty of cybersecurity in particular and in other disciplines in general, so we as a group will strive to unify trainers to take information from our platform, which we will enter accurate and value-added information to it, and we will facilitate the method of education so that the target audience for this platform is the entire community, whether they are young or old. This platform will not be limited to a specific category.

HOW YOU ARE GOING TO ADDRESS THE PROBLEM?

We will seek as a group to provide globally approved sources that deal with cryptography in one platform, this platform will support Arabic and English languages and also we will facilitate the understanding of Applied Cryptography, and we will start at the beginning of our project by adding 5 ciphers through which the user can encrypt plaintexts and also can decrypt ciphertext and then we will add a lot of codes through continuous updates on the platform.

EXPECTED RESULT AND ITS SIGNIFICANCE :

We expect this project to be pioneering in the future as we believe that it will contribute very significantly to the development of cryptography and will serve as a social service for students and everyone who wants to learn how to encrypt and decrypt using many Ciphers, whether old or new.

ABSTRACT

LIMITATION OF EXISTING WORK:



A site with a lot of calculators for everything and from the calculators on this site (Playfair cipher) that are very important for cybersecurity professionals and learners in the field of cryptography.

[Click Here for visit it](#)



An Indian site with a lot of ciphers as a curriculum and excellently formatted for learning

[Click Here for visit it](#)



A site with a lot of calculators for everything and from the calculators on this site (Cryptography Caesar Cipher Converter) that are very important for cybersecurity professionals and crypto learners.

[Click Here for visit it](#)



A French site with a lot of ciphers through which you can encrypt and decrypt through it, and it is an excellent tool that helps you study the applied cryptography course

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INTRODUCTION

Encryption key platform is a free platform concerned with teaching the method of encryption and decryption for many old and new Ciphers, and its developers are very interested in facilitating the learning method, and its supervisors aspire to be an integrated platform for everyone who wants to learn encryption and decryption for many of ciphers, what distinguishes this platform is that it works in both Arabic and English and shortens a lot of the learner's time in terms of research and investigation in the required code, and we aspire that our platform will be a destination for all trainers and trainees in all educational commission, So that it is a curriculum for learning and knowledge, and we will plan in the future to provide academic training courses on the platform, and we will also apply user experience (UX) rules on our platform so that all users can use all the tools of our platform because it will be easy to use for adults, children, learners and uneducated and will be our target audience with different abilities through the use of icons that will help people who suffer from the inability to read or understand Arabic and English and we will take into account the blind by observing how to read the browser The idea of the platform will be similar to Google Translate, which is used by an infinite number of people around the world so that the user can paste or write the phrase he wants to encrypt and then choose the cipher from the drop-down list and type the key from then the platform will give him the ciphertext with ease and ease, and in order not to distract the user, we will put a link at the bottom of each tool to go to the detailed explanations for each cipher and there will be a box in the lower right corner of the screen with an explanation Simplified for each cipher.

As a group, we believe that our platform will solve the problem of the great challenges faced by male and female students in understanding many ciphers, and we also expect the number of users of our platform to increase with the obsolescence of years in light of the direction of our dear Kingdom in activating cybersecurity sciences in the intermidate and secondary stages.

This platform will contribute to gaining a lot of visitors integrated knowledge in encryption methods, and this will be a free social contribution and free learning for a party to encrypt and decrypt the most important old or new cyphers.



AIMS AND OBJECTIVES

THE GOALS AND OBJECTIVES OF THE ENCRYPTION KEY PLATFORM ARE:

1. Draw a clear and easy way to encrypt and decrypt many ciphers.
2. Provide a clear curriculum for many ciphers.
3. Contribute to the dissemination of cryptography among the general public of society and make it a science of great importance.
4. Collect educational content for many ciphers in one site.
5. The strategic goal of the platform is for there to be free digital training courses in the platform.
6. Learning applied cryptography is a difficult and complex topic, but our site makes this task easy for you. Here you'll find different learning methods, including video lessons and practical examples that help you understand the basics quickly and easily.
7. We aspire to make our platform a destination for many users, whether they are trainee or teachers.
8. Provide all the necessary tools to encrypt and decrypt most of the encryption algorithms.
9. This platform aims to provide comprehensive and detailed educational resources on encryption algorithms. Here you will find interactive lessons and practical exercises that will help you understand the basics of cryptography and improve your encryption comprehension skills.
10. Whether you are a beginner in cryptography or have previous experience, this platform will help you gain the skills you need to develop yourself and join the modern technology industry.



METHODOLOGY

SUGGESTED SOLUTION TO ADDRESS THE ISSUE:

Applied cryptography is one of the most important skills that individuals must acquire in this digital age, as it facilitates many things for them and saves time and effort.

However, many have difficulty learning this science, whether because of the lack of available lessons or the difficulty of understanding concepts. Therefore, we offer a proposed solution to teach the community applied cryptography through a website.

The site includes educational content covering all levels, from beginners to professionals. The content includes illustrated lessons and a detailed explanation of the concepts and tools needed to advance in understanding applied cryptography.

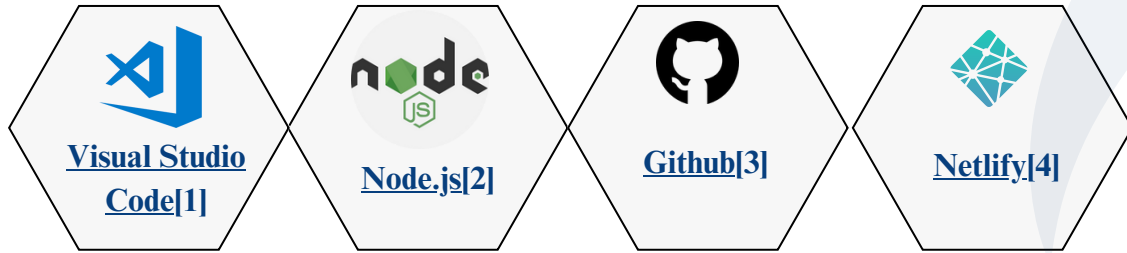
The content is characterized by an easy and clear style that makes it easier for individuals to understand and apply concepts correctly.

With this proposed solution, the community can learn applied cryptography in an easy, organized, anytime, anywhere, helping them improve their skills and achieve their goals in this scientific field.

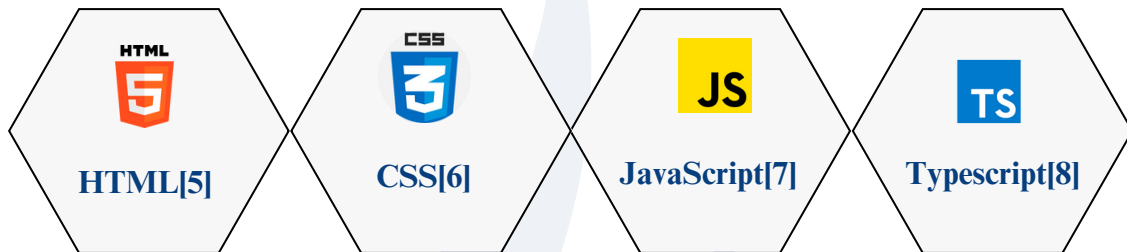
We hope that this solution will be beneficial to society and contribute to the development of the digital and technical skills of individuals and educational institutions.

METHODOLOGY

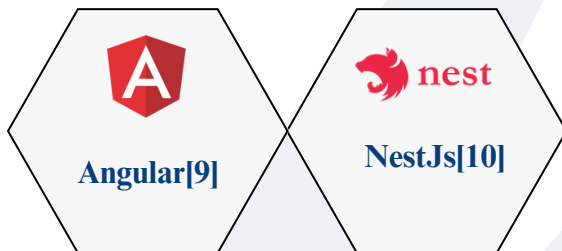
TOOLS USED:



PROGRAMMING LANGUAGES:



FRAMEWORKS :



DATABASES:



CONCLUSION

Applied cryptography is one of the most important fields in computer science, as it helps to understand and analyze computer programs and systems and protect websites.

Through our platform, you can learn different types of ciphers and tools needed to develop integrated software and computer systems.

Our platform has a large collection of tutorials and educational articles covering various areas of applied cryptography.

Our platform features a smooth and streamlined explanation style that makes learning easy and enjoyable for users of all levels and experiences.

In the future, we aspire to provide many tools and programs that help users develop and test ciphers.

These include integrated development environments, computer systems simulators, and tools for ciphers management and analysis.

The Encryption Key platform is a valuable resource for learners and those interested in the field of applied cryptography, as the platform provides comprehensive educational content and specialized tools and programs.

In the upcoming updates, users will be able to take advantage of professional development opportunities and join specialized communities in cryptography, helping to improve their skills and expand the circle of knowledge in this field.

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