Problem Statement :

* Cryptography Simulation with mbedTLS/OpenSSL Library usage and User Interaction.

Unique Idea Brief (Solution) :

* Encryption keys are created using algorithms designed to ensure that each key is unique and unpredictable.
* We can hiding or coding information so that only the person a message was intended for can read it.

Features Offered:

* Confidentiality
* Integrity
* Availability
* Usability
* Scalability

### Process flow:

1.Define our security needs. Before jumping into the process of data encryption, it's useful to have some idea of what our security needs are.

2.Choose the right encryption tools.

3.Prepare to implement our encryption strategy smoothly.

4.Maintain a culture of security after implementation.

### Architecture Diagram:

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Technologies Used:

* Encryption
* RSA
* Public key Cryptography
* Cipher
* DES
* C++ Programming language

Team members and contribution:

* Team members:

1.Bhavana M S

2.Meghana M P

3.Preethi A

* Contribution:
* Solve project and objectives.
* Documenting the process.
* Providing expertise.
* Completing individual tasks.

Conclusion:

* Cryptography serves as the cornerstone of data encryption, safeguarding information in various contexts.
* Our Project is based on the topic Data encryption. Data encryption is like a secret code for your sensitive information. It’s a way of transforming your data so that it becomes unreadable to anyone who doesn’t have the right key to unlock it. Encryption is important because it helps keep your personal information, financial data, and confidential communication safe from prying eyes.