

APPLICATION WORK FLOW:-

The application workflow is designed to ensure a seamless yet highly secure process for encrypting and decrypting user files. Here's a detailed look at the steps involved:

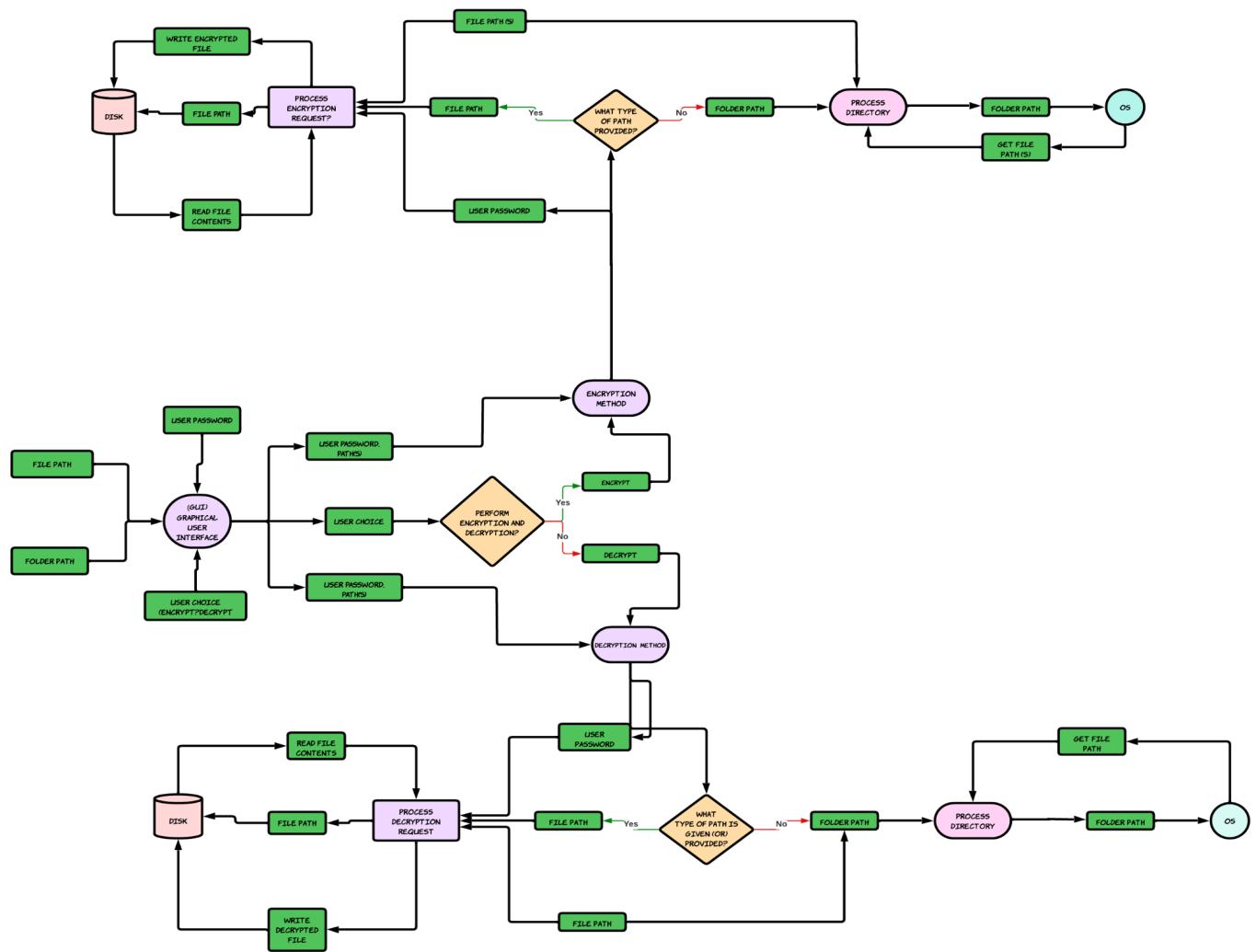
User Authentication:-

The user initiates the application and is prompted to enter a secure passphrase. This passphrase will be used as a key component in encrypting the File Encryption Key. The application employs a Key Derivation Function (KDF) to convert the user passphrase into a cryptographic key.

File/Directory Selection:-

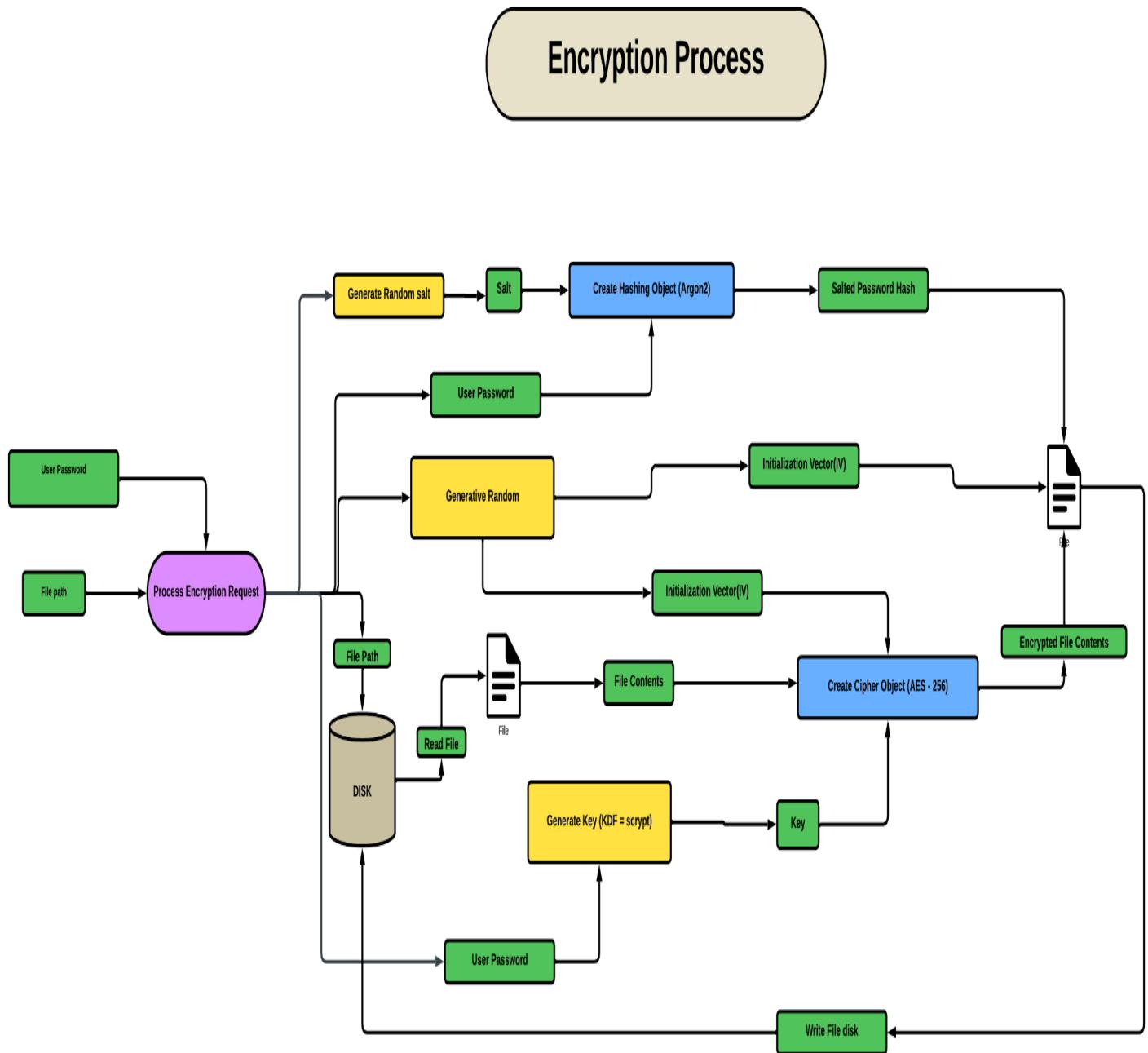
The user selects the file or directory they wish to encrypt from the file system.

The application allows browsing through directories and choosing multiple files if needed



File Encryption:-

A random File Encryption Key is generated using a secure random number generator. The selected file or directory is encrypted using AES-256 encryption with the generated File Encryption Key



Decryption Process:

When the user needs to access the encrypted file, they must enter their passphrase. The application uses the KDF to derive the decryption key from the user passphrase. If the passphrase is correct, the File Encryption Key is decrypted. The decrypted File Encryption Key is then used to decrypt the file, making it accessible to the user.

