ADFGVX CIPHER APPLICATION

Here's a brief overview of the main features and components of Application:

File Processor Class:

This class manages the processing of files in a specified input directory and put processed file in specified output directory.

It processes each file using a provided cipher key to either encrypt or decrypt the file content.

It uses the Cipher class for encryption and decryption.

The progress of file processing is displayed as a percentage.

PolybiusSquare Class

This class defines the Polybius Square used for encoding characters.

It contains a matrix of characters, two functions for mapping characters to their corresponding symbols in the square.

Cipher Class:

This class represents the ADFGVX cipher encryption and decryption process.

It uses a provided key to encode and decode text.

The encryption process involves several steps: encoding using a Polybius Square, matrix creation, columnar transposition, and generating ciphertext.

The decryption process reverses the encryption steps to retrieve the original text.

Runner Class:

This class serves as the entry point for the application.

It provides an interactive command-line interface for users to specify input and output directories, cipher keys, choose between encryption and decryption, and option to quit it.

Overall, the application provides functionality to encrypt and decrypt text files using the ADFGVX cipher. Users can provide input and output directories, a cipher key, and choose between encryption and decryption operations. The application reads files from the input directory, processes them using the specified key, and writes the processed content to the output directory.