

Project 3- Hill cipher

Write a mobile application that simulates the Hill cipher.

- The application has four functions: setup the encryption key, encryption, decryption, cryptanalysis.
- Setup the encryption key: allow a user to determine the dimension of the matrix, and to generate the key either randomly, or manually (entered by the user).
- The default space for plaintext/ciphertext/key is the set of small alphabet 'a' .. 'z', but the application allows the user to extend it to include: capital letter, digit 0..9, or some special characters such as space.
- The type of cryptanalysis is known-plaintext attack. Given a plaintext and the corresponding ciphertext, the cryptanalyst try to find the key.
- For more details about the encryption, decryption, and cryptanalysis see the lecture notes and textbook “Cryptography: Theory and Practice by Douglas Stinson”.

N.B. The maximum number of students in a group's project is 6.