Defined Plaintext and Key:

- The plaintext is the long message provided by professor Fielder
- "COSCPROJECT1", is the key used in the PolyCipher encryption algorithm.
- alphas is an array that defines which character groups are considered valid for the cipher. These groups include lowercase letters, uppercase letters, numbers, and punctuation.
- A PolyCipher object is instantiated using the key and the alphas array.
- PolyCipher cipher = new PolyCipher(key, alphas);

Generated Beta Matrix

- The generateSquare() method is invoked on the cipher object to generate the Polybius square (cipher table).
- cipher.generateSquare();
- The printSquare() method is called to display the Polybius square.
- cipher.printSquare();

Defined Encrypt

- The encrypt() method is used to encrypt the plaintext using the generated key.
- The result is stored in encryptedText.
- String encryptedText = cipher.encrypt(plaintext);
- System.out.println(encryptedText);

Defined Decrypt

- The decrypt() method is used to decrypt the ciphertext back to the original plaintext.
- String decryptedText = cipher.decrypt(encryptedText);
- System.out.println(decryptedText);

Access and Print the Beta Matrix:

- The getBeta() method is used to access the generated Polybius square (beta matrix) and store it in a 2D char array.
- A nested loop is used to print the entire matrix.
- for (int i = 0; i < beta.length; i++) { for (int j = 0; j < beta[i].length; j++) { System.out.print(beta[i][j] + " "); } System.out.println(); }