

DE GUZMAN, MARY RECHELLE

BSIS202

The main method starts by creating a Scanner object for reading user input. It then prompts the user to enter the plaintext the text to be encrypted and the value of "k" the shift value for the cipher.

The entered plaintext and shift value are then passed to the encrypt method, which returns the encrypted text "ciphertext". The ciphertext is then printed to the control center.

The encrypt method works by iterating over each character in the plaintext. For each character, it checks if it's an uppercase or lowercase letter.

If the character is an uppercase letter, it calculates the encrypted character by adding the shift value to the current character's ASCII value, subtracting the ASCII value of 'A' to get a zero-based index, and then taking the result modulo 26 the number of letters in the alphabet. This gives a number between 0 and 25, which is then added to the ASCII value of 'A' to get the ASCII value of the encrypted character.

Once all characters in the plaintext have been processed, the encrypt method returns the ciphertext as a string.