This program takes input and uses a shift cipher to encrypt it. This means that each letter of the input is shifted by its respective placement in the alphabet by a given amount (key). If the value surpasses “Z” when going through the alphabet, the index is reset to 0 in order to prevent going out of bounds. Once the key reaches zero, the particular character of the arraylist (that consisted of all of the characters of the input) is replaced with the last letter that the loop fell on. Two while loops are utilized in order to apply the same encryption algorithm to each element of the arraylist. Afterwards, another while loop is utilized in order to add each character element of the arraylist to a string.

**Instructions**:

1. Compile both the Project5.Java file and ShiftCipher.Java file.

2. Run the Project5 file and enter something you would like to be encrypted. Ensure that there are no numbers or special characters, just letters of the alphabet. Also ensure that there are no spaces.

3. Enter a key which will determine the number of times each letter of your input is shifted by given its respective position in the alphabet.

4. The outputted String is your newly encrypted text.

**Sample user input**

Please enter plaintext to encrypt: ATTACKATONCE

Please enter a key (the number of times to shift by): 4

**Sample output**

EXXEGOEXSRGI