

Aim :

To implement Simplified Data Encryption Standard (SDES) Algorithm in Java

Objective :

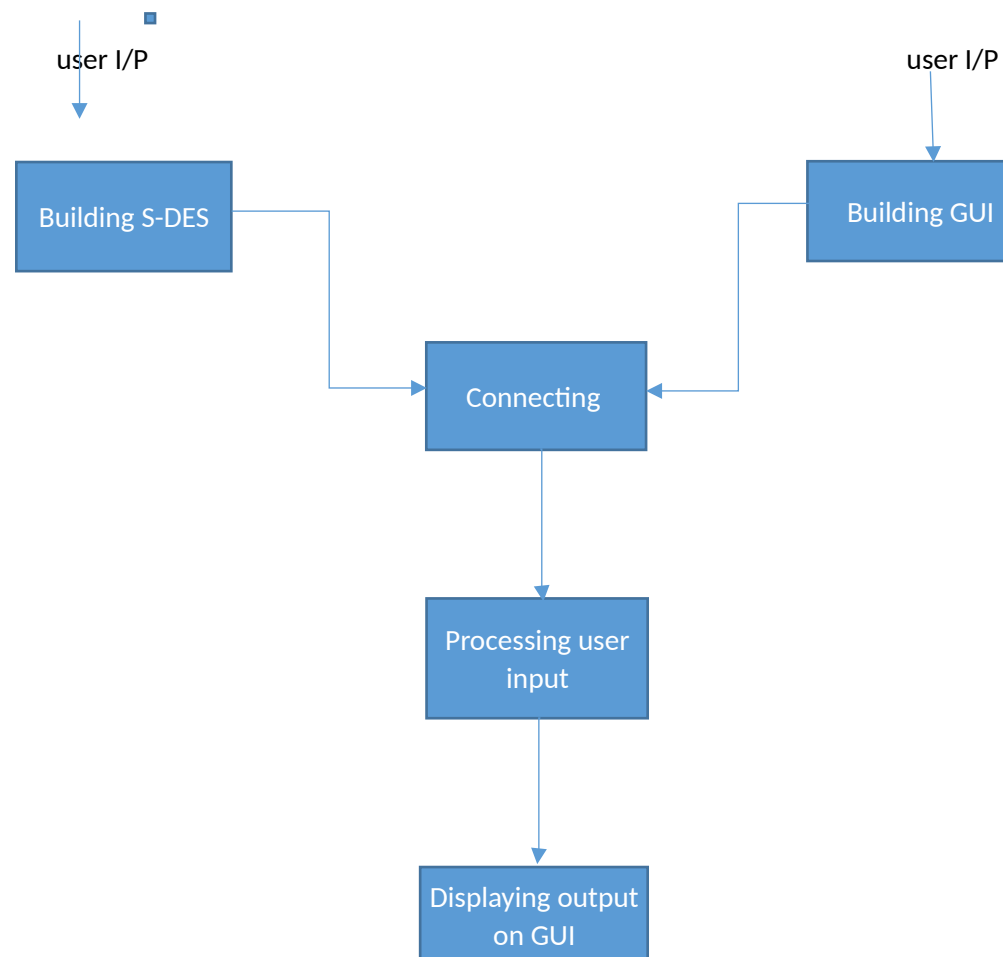
To provide step by step Implementation of encryption and decryption of SDES algorithm so that the users can understand clearly the various steps involved in the SDES algorithm

Input specimen :

1. 10-bit key
2. 8-bit input
3. 8-bit Encrypted text
4. 8-bit decrypted text

Experimental Setup:

GUI's has been made using Swings.

Steps :

Internal calculation of SDES :

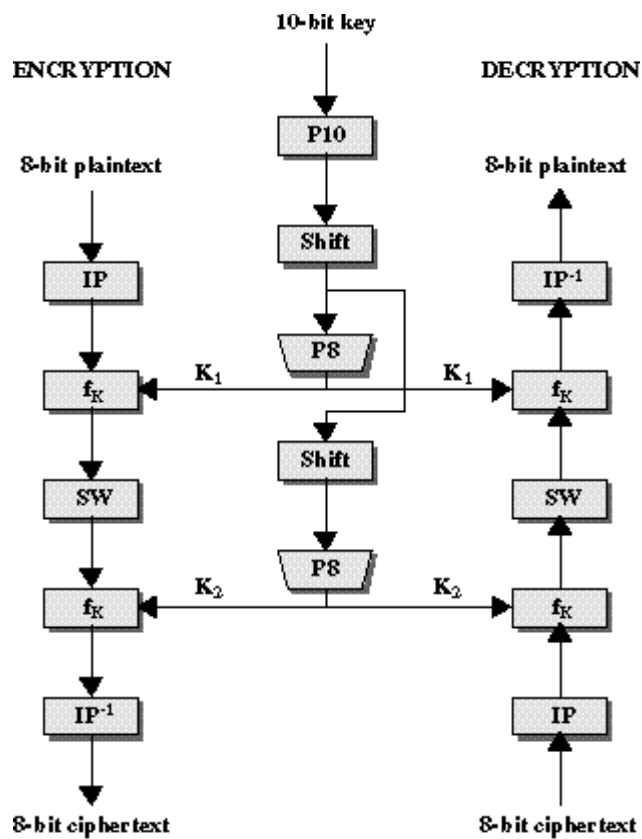


Figure 3.1 Simplified DES Scheme

Result :

Example 1 :

Encryption:

i/p key -1010110011

i/p text-00101000

k1-10100111

k2-01111011

IP-00100010

Encrypted Text-01110011

Decryption:

Ip-00010011

Ep-10010110

Ep2-00110001

Decrypted Text-01101110

Example2 :

Encryption:

i/p key -0100011110

i/p text-00101101

k1-01101001

k2-10100110

IP-01100110

Encrypted Text-10111100

Decryption:

Ip-01111010

Ep-01010101

Ep2-11110011

Decrypted Text-00101101

Example 3 :

Encryption:

i/p key -1010000010

i/p text-01110010

k1-10100100

k2-01000011

IP-10101001

Encrypted Text-01110111

Decryption:

Ip-11101101

Ep-11101011

Ep2-10101000

Decrypted Text-01110010