CS 232 : Digital design logic and computer Architecture

REPORT QUESTION 03 Lab 02

- For RLE_Encoder challenging tasks are due to different Input-data stream rate and output-data stream and devising different methods for ‘ESC’ character and other characters
- Make an 2D array of 6x8 (Worst case we need 6 extra Bytes)
- Every time we need to output a Byte store them in an array
- Whenever (sizeof(array) != 0) output from array and remove it from array
- We need three If statements to fit all the cases into them
- 1) if(prev_signal == current_signal) we increment the count
- 2) if(prev_signal != current_signal) and count != 1 then we add ESC,prev_signal,count into array
- 3) if(prev_signal != current_signal) and count = 1 then we add prev_signal, into array
- Similar internal if statements for ‘ESC’ character
- Worst case is aaaESC anything ending with ESC and finite size before
- Pass Dummy(‘11111111’) required number of types to output remaining output bytes of array