S-AES README:

Algorithm used:

- First check whether the given input plaintext is hexadecimal 16 bit plaintext or a sentence based on ascii values.
- If normal hexadecimal values over there in plain text implement the way mentioned over in the slideshare slides following the algorithm.
- Else take two digits at a time and convert them to 16 bit binary based on their ascii and pass everything to the previous code in order to get the cipher text.
- Algo output1 shows how hey converted to binary values based on ascii.
- Algo output2 shoes how suvansh Arora converted to binary values taking two character at a time.
- Algo.c basic logic for the above.
- Socket basically passes a text message from server to client based on predefined system calls and it is visible over there that it reaches whenever we run server and client together.
- tcp_server.c main algorithm that works around with the algorithm, if opened in sublime, or any compiler with black background, it will be easier to see through the modules with the help of comments.
- tcp_server.c uses the algorithm mentioned before based on the input message chooses either logic and converts step after step.
- Output1 is basically the output corresponding to that slideshare example and all the output can be cross verified from the slides and also from the client side as well that we are able to convert back the original plaintext, hence it works perfectly fine.
- Output2 new example DABB that is a dance step, to see if we are able to convert this cipher text, transmit and convert back to plain text or not.
- Left side terminal is always representing the tcp_client.
- Right side terminal is always representing the tcp_server.
- Compiler/editor used Xcode.
- Commands for terminal used vim , make , ./tcp_server,./tcp_client , clear ,
 Xcode -select —install.