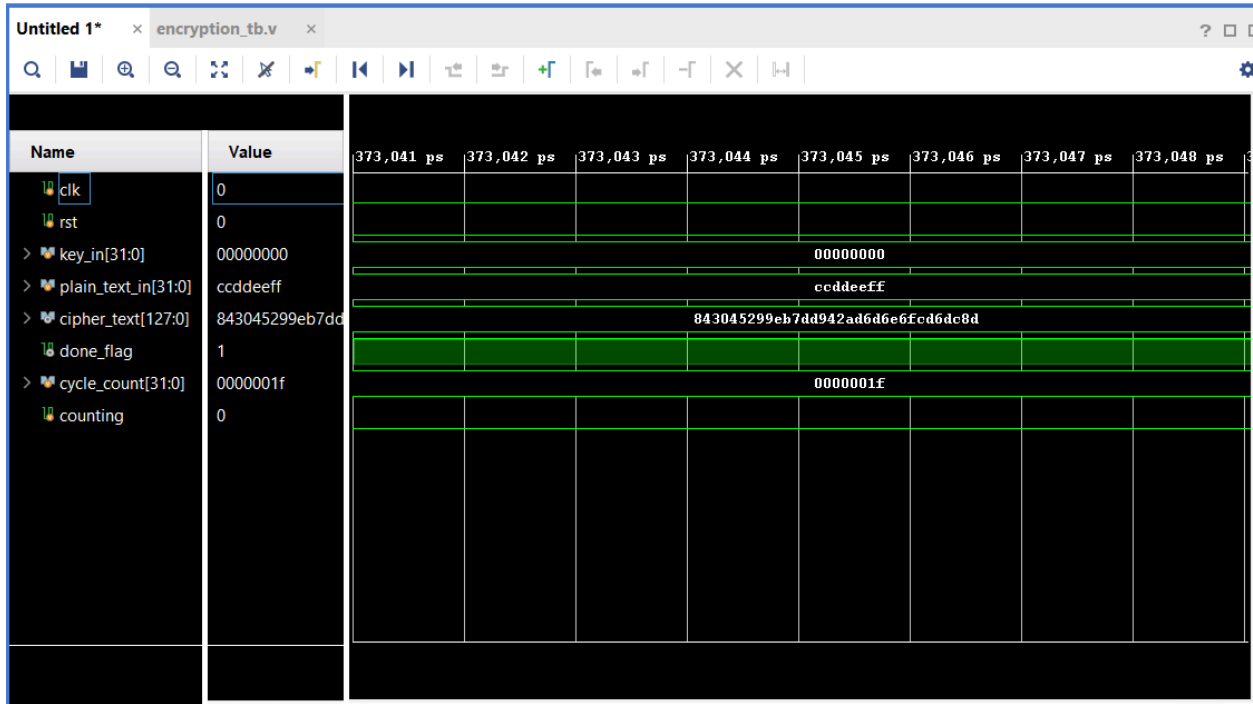


```

===== Round 6 =====
shift_out : b49eb3244fc723b961a9c2489c1b5033
sub_out   : b41bc2b94f9e504861c7b3339ca92324
add_out   : b118702742236bd031c2866f07dde935
mix_out   : 5d793ba256061e5ca83d8f586d697292
===== Round 7 =====
shift_out : c82644962c251eccc7c15170c5ad7fa8
sub_out   : c8ad51cc2c267f70c72544a8c5c11e96
add_out   : 12abd091d0d818c740725f1e6cb68556
mix_out   : 33dec716e5887accecd3422aad75cd
===== Round 8 =====
shift_out : c961cfb170409781094e70c65062ad72
sub_out   : c96270817061adc60940cf72504e97b1
add_out   : 5a09e6a40d7afc66e1c5fcb688171f44
mix_out   : 54f0e59736d39d5e76c3f6b2d90ae5db
===== Round 9 =====
shift_out : bedab01bd7a6c049f8f08e33c401b04e
sub_out   : be018e49d7dab033f8a6b04ec4f0c01b
add_out   : 0815ea6747ef884c40c2e9d5225253b
mix_out   : b9c13285cd9231965db95a0b6e436c7a
===== Final Result =====
Decrypted Plaintext : 843045299eb7dd942ad6d6e6fcd6dc8d
Latency             : 31 cycles
Throughput          : 412 Mbps
$finish called at time : 385 ns ; File "C:/Users/User/OneDrive/Desktop/EEE6225/encryption/encryption.srcs/sim_1/new/encryption_tb.v" Line 81
xsim: Time (s): cpu = 00:00:06 ; elapsed = 00:00:12 . Memory (MB): peak = 2019.816 ; gain = 0.000

```



Setup	Hold	Pulse Width
Worst Negative Slack (WNS): 3.027 ns	Worst Hold Slack (WHS): 0.132 ns	Worst Pulse Width Slack (WPWS): 4.500 ns
Total Negative Slack (TNS): 0.000 ns	Total Hold Slack (THS): 0.000 ns	Total Pulse Width Negative Slack (TPWS): 0.000 ns
Number of Failing Endpoints: 0	Number of Failing Endpoints: 0	Number of Failing Endpoints: 0
Total Number of Endpoints: 11815	Total Number of Endpoints: 11815	Total Number of Endpoints: 6040

All user specified timing constraints are met.

Resource	Standard Version		Optimised Version	
	Utilisation	Utilisation %	Utilisation	Utilisation %
LUT	4347	6.86	3925	6.19
FF	4765	3.76	4887	3.85
IO	387	184.29	195	92.86