

Assignment - 3:

The Problem: Store the ASCII codes of Uppercase letters in SRAM area starting from 0x2FF10000. Now convert Uppercase letters into corresponding Lowercase letters and store their ASCII codes in SRAM area starting from 0x2FF20000.

The solution:

I have divided the problem into two categories.

1. First I have converted the ASCII code into the Uppercase letters.
2. Secondly, I have converted the ASCII code into the Lowercase letters.

Below converting the ASCII code into the Uppercase letters

```
1  LDR R0, [0x2FF10000]
2  MOV R2, #0X41
3  MOV R3, #0X0
4  Uppercase:
5      STRB R2, [R0], #1
6      ADD R2, R2, #1
7      ADD R3, R3, #1
8      CMP R3, #26
9      BNE Uppercase
```

Below converting the ASCII code into the Lowercase letters:

```
1  LDR R1, [0x2FF20000]
2  MOV R2, #0X41
3  MOV R3, #0X0
4  ADD R2, R2, #0X20
5  Lowercase:
6      STRB R2, [R1], #1
7      ADD R2, R2, #1
8      ADD R3, R3, #1
9      CMP R3, #26
10 BNE Uppercase
```
