

Lab Submission

Q2. Write assembly code that performs the below C code:

```
int j=0;
int i;
for ( i = 0 ; i < 15 ; i++){

    j = j + i;

}
```

where address of j begins at 0x20000004.

AREA RESET , DATA , READONLY

EXPORT __Vectors

__Vectors

DCD 0x20008000 ; initializ sp

DCD Reset_Handler

ALIGN

AREA mycode ,Code , READONLY

ENTRY

EXPORT Reset_Handler

Reset_Handler

LDR R0 , =0x20000004

MOV R1 , #0

MOV R2 , #0

LOOP

CMP R2 , #15

BGE Endwhile

ADD R1 , R1 , R2

ADD R2 , R2 , #1

B LOOP

Endwhile

STR R1 , [R0]

END