HomeWork_2

Name： 卫焱滨（Wei Yanbin）

SID：11710823

chapter 2

Exercise 2.1

```
addi f, h, -5
add f, f, g
```

Exercise 2.3

```
sub $t0, $s3, $s4       #get i-j
li $t1, 4
mult $t0,$t1            #calculate shift bits of A[i-j] form A[0]
mflo $t0
add $t0, $s6, $t0       #get address of A[i-j]
lw $t2, 0($t0)          #load A[i-j] in $t0
sw $t2, 32($s7)         #store A[i-j] to B[8]
```

Exercise 2.6

2.6.1

```
C code:
int tmp1 = Array[0];
int tmp2 = Array[3];

Array[0] = Array[4];
Array[3] = Array[1];

```

```
Array[1] = tmp1;
Array[4] = tmp2;

说明：模拟过程
2 4 3 6 1 ——>
1 4 3 4 1 ——>
1 2 3 4 6
```

2.6.2

```
lw $t0 ($s6)
lw $t1 12($s6)

lw $t2 16($s6)
sw $t2 ($s6)
lw $t3 4($s6)
sw $t3 12($s6)

sw $t0 4($s6)
sw $t1 16($s6)
```

Exercise 2.12

2.12.1

the value of $t0 : 0x50000000.

2.12.2

It has been Overflow.

2.12.3

0xB0000000

2.12.4

There is No overflow.

2.12.5

0xD0000000

2.12.6

It has been overflow.

Exercise 2.16

By the premises: op=0, rs=3, rt=2, rd=3, shamt=0, funct=34, we get

Answer:

Instruction type : R-type

Instruction: sub $v1, $v1, $v0,

Binary Instrcution: 00000000011000100001100000100010

Hex Insruction: 0x00621822