Documentatie

Am ales sa implementez un program care face suma numerelor impare

int i=10;

int sum=0;

while(i != 0){

sum = sum + i;

i = i - 2;

}

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addi $1 $0 10 ;i = 10

addi $2 $0 0 ;sum = 0

addi $3 $0 2 ;aux = 2 -> pentru decrementare

add $2 $2 $1 ;sum = sum + i

sub $1 $1 $3 ;i = i – aux;

beq $1 $0 2 ;verifica daca i == 0 in aces caz face jump-ul

j 4 ; sare la inceputul buclei

sw $2 0($4) ; se salveaza suma la adresa 4

lw $2 0($5) ;incarca memeoria cu rezultatul suma

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0 => b"001\_000\_001\_0001010", --addi $1 $0 10 x”208A”

1 => b"001\_000\_010\_0000000", --addi $2 $0 0 x” 2100”

2 => b"001\_000\_011\_0000010", --addi $3 $0 2 x”2182”

3 => b"000\_010\_001\_010\_0\_000", --add $2 $2 $1 x”08A0”

4 => b"000\_001\_011\_001\_0\_001", --sub $1 $1 $3 x”0591”

5 => b"100\_000\_001\_0000010", --beq $1 $0 2 x”8082”

6 => b"111\_0000000000100", --j 4 x”E004”

7 => b"011\_100\_010\_0000000", --sw $2 0($4) x”7100”

8 => b"010\_101\_010\_0000000", --lw $2 0($5) x”5500”

Merge Instruction Fetch ,iar restul componenteleor implementate sunt functionale.