Lab\_6

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1. How many bugs are there?
2. How do you fix the bug(s)?
3. What is your strategy to finding the bug(s)?
4. Where is the source pointer stored originally?
   1. Line 28 “la $9, source”
5. Where is the dest pointer stored originally?
   1. Line 33, “la $10, dest”
   2. Line 56 “. comm dest, 40”
6. What instruction is used to load the address of source and dest pointers?
   1. Function la, “Load Address”
7. Where does the loop to copy values start?
   1. Line 45 “$L6”
8. Explain what each line in the loop is trying to do in the following format.
   1. addu $8,$8,1 increase the k counter k++ $8=$8+1
   2. sll $3,$8,2 shifted left by 2 bits which is 4 (multiply by 4) k++ $3=$8\*4
   3. addu $5,$7,$9 make $5 hold the address of $9 add $5=&7+$9 $5=&source [k] k++
   4. addu $2,$3,$9 make $2 hold the address next value in the array add $2=&3+$9 $2=&source[k+1] k++
   5. addu $6,$7,$10 make $6 hold the address in dest array add $6=&7+$10 $6=&dest[k] k++
   6. lw $4,0($2) Set $4 to loaded words at memory address $4=source[k+1]
   7. move $7,$3 Increment $7, put value in $3 into $7 $7=$3 source[k]=source[k+1] k++
   8. lw $3,0($5) Set $3 to loaded words at memory address $3=source[k]
   9. #nop comment //comment
   10. sw $3,0($6) store value of $3 into address pointed to $6 dest[k] ==source[k]
   11. bne $4,$0,$L6 if $4 are equal $0 then break loop until source[k+1]=0 if(source[k+1]!=0) continue; else break;