START OF THE PROGRAM

Instruction	Cycle 1	Cyc 2	Cyc 3	Cyc 4	Cyc 5	Cyc 6	Cyc 7	Cyc 8	Cyc 9	Cyc 10	Cyc 11	Cyc 12	Cyc 13	Cyc 14	Cyc 15	Cyc 16	Cyc 17	Cyc 18	Cyc 19	Cyc 20	Cyc 21	Cyc 22	Cyc 23	Cyc 24	Cyc 25	Cyc 26
LUI $t0, 0x8000	Fetch	Deco	Ex	Mem	WB																					
ADDIU $t0, $t0, test_array		Fetch	Deco	Ex	Mem	WB																				
SUB $t1,$t1,$t1			Fetch	Deco	Ex	Mem	WB																			
SUB $t3,$t3,$t3				Fetch	Deco	Ex	Mem	WB																		
ADDI $t4,$0,1000					Fetch	Deco	Ex	Mem	WB																	
								Ex BUBBLE	Mem BUBBLE	WB BUBBLE																
Loop1:BEQ $t3,$t4,OutLoop1						Fetch	Deco STALL	Deco	Ex	Mem	WB															
LW $t5,0($t0)							Fetch STALL	Fetch	Deco	Ex	Mem	WB														
											Ex BUBBLE	Mem BUBBLE	WB BUBBLE													
ADD $t1,$t1,$t5									Fetch	Deco STALL	Deco	Ex	Mem	WB												
ADDI $t0,$t0,4										Fetch STALL	Fetch	Deco	Ex	Mem	WB											
ADDI $t3,$t3,1												Fetch	Deco	Ex	Mem	WB										
B Loop1													Fetch	Deco	Ex	Mem	WB									
OutLoop1: LUI $t3, 0x8000														Fetch FLUSH	Deco BUBBLE	Ex BUBBLE	Mem BUBBLE	WB BUBBLE								
Loop1:BEQ $t3,$t4,OutLoop1															Fetch	Deco	Ex	Mem	WB							
LW $t5,0($t0)																Fetch	Deco	Ex	Mem	WB						
																			Ex BUBBLE	Mem BUBBLE	WB BUBBLE					
ADD $t1,$t1,$t5																	Fetch	Deco STALL	Deco	Ex	Mem	WB				
ADDI $t0,$t0,4																		Fetch STALL	Fetch	Deco	Ex	Mem	WB			
ADDI $t3,$t3,1																				Fetch	Deco	Ex	Mem	WB		
B Loop1																					Fetch	Deco	Ex	Mem	WB	
OutLoop1: LUI $t3, 0x8000																						Fetch FLUSH	Deco BUBBLE	Ex BUBBLE	Mem BUBBLE	WB BUBBLE

END OF THE PROGRAM

Instruction	Cyc 1	Cyc 2	Cyc 3	Cyc 4	Cyc 5	Cyc 6	Cyc 7	Cyc 8	Cyc 9	Cyc 10	Cyc 11	Cyc 12
B Loop1	Fetch	Deco	Ex	Mem	WB							
OutLoop1: LUI $t3, 0x8000		Fetch FLUSH	Deco BUBBLE	Ex BUBBLE	Mem BUBBLE	WB BUBBLE						
Loop1:BEQ $t3,$t4,OutLoop1			Fetch	Deco	Ex	Mem	WB					
LW $t5,0($t0)				Fetch FLUSH	Deco BUBBLE	Ex BUBBLE	Mem BUBBLE	WB BUBBLE				
OutLoop1: LUI $t3, 0x8000					Fetch	Deco	Ex	Mem	WB			
ADDIU $t3, $t3, Addition							Fetch	Deco	Ex	Mem	WB	
SW $t1,0($t3)								Fetch	Deco	Ex	Mem	WB