

CS6109 - COMPILER DESIGN – LAB

Week 7 – 11.10.2022 (Observations Questions)

1. Converted a nested ‘for’ into a single ‘for’ construct. You need to handle ‘and’, ‘or’, ‘not’ operators in the expression.

```
for ( init; condition; increment ) {  
    for ( init; condition; increment ) {  
        statement(s); }  
    statement(s); }
```

Input: for(int i=1; i<10; i++) { for(int j = 1; j<10 ; j++) { printf(“%d,%d”,i, j); } }	Output: for (int i=1, j = 1; i<10 && j<10; i++, j++)
--	--

2. Converted a nested ‘while’ into a single ‘while’ construct. You need to handle ‘and’, ‘or’, ‘not’ operators in the expression.

```
while (outer condition) {  
    outer while statements;  
    while (inner condition)  
    {  
        inner while statements;  
    }  
    outer while statements;  
}
```

Input: int i = 1; while(i<=3) { int j=1; while(j<=4) { j++; } i++; }	Output: int i = 1; int j = 1; while (i <= 3 j <= 4) { { j++; } i++; }
--	---