

Experiment 1: Matrix Mul

Code:

```
#include <stdio.h>

int main() {
    int a[3][3] = {
        {1, 2, 3},
        {4, 5, 6},
        {7, 8, 9}
    };

    int b[3][3] = {
        {9, 8, 7},
        {6, 5, 4},
        {3, 2, 1}
    };

    int mul[3][3];

    int i, j, k;

    for (i = 0; i < 3; i++) {
        for (j = 0; j < 3; j++) {
            mul[i][j] = 0;
            for (k = 0; k < 3; k++) {
                mul[i][j] += a[i][k] * b[k][j];
            }
        }
    }

    printf("The result of the matrix multiplication is:\n");

    for (i = 0; i < 3; i++) {
        for (j = 0; j < 3; j++) {
            printf("%d\t", mul[i][j]);
        }

        printf("\n");
    }
}
```

```
    return 0;  
}
```

Output:

```
The result of the matrix multiplication is:  
30  24  18  
84  69  54  
138 114  90
```

```
=== Code Execution Successful ===
```