

DAY-2

Quiz-2

1. Get the values from the user and store it in 3*3 matrix. Display the matrix.

Sample Output:

```
1 2 3
4 5 6
7 8 9
```

CODE:

```
#include <stdio.h>
```

```
int main() {
    int matrix[3][3];

    printf("Enter values for a 3x3 matrix:\n");
    for (int i = 0; i < 3; ++i) {
        for (int j = 0; j < 3; ++j) {
            printf("Enter value at position [%d][%d]: ", i + 1, j + 1);
            scanf("%d", &matrix[i][j]);
        }
    }
    printf("\nThe 3x3 matrix is:\n");
    for (int i = 0; i < 3; ++i) {
        for (int j = 0; j < 3; ++j) {
            printf("%d ", matrix[i][j]);
        }
        printf("\n");
    }

    return 0;
}
```

OUTPUT:

```
Enter values for a 3x3 matrix:
Enter value at position [1][1]: 1
Enter value at position [1][2]: 2
Enter value at position [1][3]: 3
Enter value at position [2][1]: 4
Enter value at position [2][2]: 5
Enter value at position [2][3]: 6
Enter value at position [3][1]: 7
Enter value at position [3][2]: 8
Enter value at position [3][3]: 9
The 3x3 matrix is:
1 2 3
4 5 6
7 8 9
```

2. Write a program to get the output

Input: a1b10

Output: abbbbbbbbbb

Input: b3c6d15

Output: bbbccccccdddddcccccccccccc

CODE:

```
#include <stdio.h>
#include <ctype.h>
int main() {
    char input[100];
    printf("Enter input string: ");
    scanf("%s", input);
    char current_char = '\0';
    int count = 0;
    for (int i = 0; input[i] != '\0'; ++i) {
        if (isalpha(input[i])) {
            if (count == 0) {
                printf("%c", input[i]);
            } else {
                for (int j = 0; j < count; ++j) {
                    printf("%c", current_char);
                }
            }
            count = 0;
            current_char = input[i];
        } else if (isdigit(input[i])) {
            count = count * 10 + (input[i] - '0');
        }
    }

    for (int j = 0; j < count; ++j) {
        printf("%c", current_char);
    }
    printf("\n");
    return 0;
}
```

OUTPUT:

SAMPLE INPUT/OUTPUT 1:

```
Enter input string: a1b10
aabbbbbbbbbbb
```

SAMPLE INPUT/OUTPUT 2:

```
Enter input string: b3c6d15
bbbccccccdddddddddddddd
```

3. Print the pattern without using arrays.

				1
			2	4
		3	5	7
	6	8	10	12
9	11	13	15	17

CODE:

```
#include<stdio.h>
```

```
int main() {
    int num = 1;

    for (int i = 1; i <= 5; i++) {
        for (int j = 1; j <= i; j++) {
            printf("%2d ", num);
            num += 2;
        }
        printf("\n");
    }

    return 0;
}
```

OUTPUT:

			1
		2	4
	3	5	6
6	8	10	12
9	11	13	15
			17