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

```
#include <stdio.h>
        int main() {
           int matrix[3][3];
           printf("Enter values for the 3x3 matrix:\n");
           for (int i = 0; i < 3; ++i) {
             for (int j = 0; j < 3; ++j) {
                printf("Enter value for element (%d, %d): ", i + 1, j + 1);
                scanf("%d", &matrix[i][j]);
              }
           }
           // Display the matrix
           printf("\nMatrix:\n");
           for (int i = 0; i < 3; ++i) {
             for (int j = 0; j < 3; ++j) {
                printf("%d\t", matrix[i][j]);
             printf("\n");
           return 0;
}
2. Write a program to get the output
```

```
Input: a1b10
Output: abbbbbbbbb
```

## **PROGRAM CODE:**

```
#include <stdio.h>
#include <string.h>
int main() {
  char input[100];
  printf("Input: ");
  scanf("%s", input);
  int length = strlen(input);
  char currentChar;
  int count;
  printf("Output: ");
```

```
for (int i = 0; i < length; ++i) {
    currentChar = input[i];

if (isalpha(currentChar)) {
    printf("%c", currentChar);
} else if (isdigit(currentChar)) {
    count = currentChar - '0';
    for (int j = 1; j < count; ++j) {
        printf("%c", input[i - 1]);
    }
}

printf("\n");
return 0;
}</pre>
```

## **3. Print the pattern without using arrays PROGRAM CODE:**

```
#include <stdio.h>
int main() {
   int n = 5;
   int current = 1;

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

return 0
}}</pre>
```