Assignment 5

More iterative control

```c
#include <stdio.h>


int main() {
    int N, i;


    // 1: Print "MySirG" N times
    printf("1: Enter the value of N for printing MySirG: ");
    scanf("%d", &N);
    printf("MySirG printed %d times:\n", N);
    for (i = 0; i < N; i++) {
        printf("MySirG ");
    }
    printf("\n\n");


    // 2: Print the first N natural numbers
    printf("2: Enter the value of N for printing natural numbers: ");
    scanf("%d", &N);
    printf("First %d natural numbers:\n", N);
    for (i = 1; i <= N; i++) {
        printf("%d ", i);
    }
    printf("\n\n");
```

```c
    // 3: Print the first N natural numbers in reverse order
    printf("3: Enter the value of N for printing natural numbers in reverse order: ");
    scanf("%d", &N);
    printf("First %d natural numbers in reverse order:\n", N);
    for (i = N; i >= 1; i--) {
        printf("%d ", i);
    }
    printf("\n\n");

    // 4: Print the first N odd natural numbers
    printf("4: Enter the value of N for printing odd natural numbers: ");
    scanf("%d", &N);
    printf("First %d odd natural numbers:\n", N);
    for (i = 1; i <= 2 * N - 1; i += 2) {
        printf("%d ", i);
    }
    printf("\n\n");

    // 5: Print the first N odd natural numbers in reverse order
    printf("5: Enter the value of N for printing odd natural numbers in reverse order: ");
    scanf("%d", &N);
    printf("First %d odd natural numbers in reverse order:\n", N);
    for (i = 2 * N - 1; i >= 1; i -= 2) {
        printf("%d ", i);
    }
    printf("\n\n");
```

```c
    // 6: Print the first N even natural numbers
    printf("6: Enter the value of N for printing even natural numbers: ");
    scanf("%d", &N);
    printf("First %d even natural numbers:\n", N);
    for (i = 2; i <= 2 * N; i += 2) {
        printf("%d ", i);
    }
    printf("\n\n");

    // 7: Print the first N even natural numbers in reverse order
    printf("7: Enter the value of N for printing even natural numbers in reverse order: ");
    scanf("%d", &N);
    printf("First %d even natural numbers in reverse order:\n", N);
    for (i = 2 * N; i >= 2; i -= 2) {
        printf("%d ", i);
    }
    printf("\n\n");

    // 8: Print squares of the first N natural numbers
    printf("8: Enter the value of N for printing squares: ");
    scanf("%d", &N);
    printf("Squares of the first %d natural numbers:\n", N);
    for (i = 1; i <= N; i++) {
        printf("%d ", i * i);
    }
```

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

    // 9: Print cubes of the first N natural numbers
    printf("9: Enter the value of N for printing cubes: ");
    scanf("%d", &N);
    printf("Cubes of the first %d natural numbers:\n", N);
    for (i = 1; i <= N; i++) {
        printf("%d ", i * i * i);
    }
    printf("\n\n");

    // 10: Print a table of N
    printf("10: Enter the value of N for printing a table: ");
    scanf("%d", &N);
    printf("Table of %d:\n", N);
    for (i = 1; i <= 10; i++) {
        printf("%d x %d = %d\n", N, i, N * i);
    }

    return 0;
}
```

```
1: Enter the value of N for printing MySirG: 7
MySirG printed 7 times:
MySirG MySirG MySirG MySirG MySirG MySirG MySirG

2: Enter the value of N for printing natural numbers: 13
First 13 natural numbers:
1 2 3 4 5 6 7 8 9 10 11 12 13

3: Enter the value of N for printing natural numbers in reverse order: 15
First 15 natural numbers in reverse order:
15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

4: Enter the value of N for printing odd natural numbers: 12
First 12 odd natural numbers:
1 3 5 7 9 11 13 15 17 19 21 23

5: Enter the value of N for printing odd natural numbers in reverse order: 11
First 11 odd natural numbers in reverse order:
21 19 17 15 13 11 9 7 5 3 1

6: Enter the value of N for printing even natural numbers: 17
First 17 even natural numbers:
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

7: Enter the value of N for printing even natural numbers in reverse order: 16
First 16 even natural numbers in reverse order:
32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2
```

```
8: Enter the value of N for printing squares: 10
Squares of the first 10 natural numbers:
1 4 9 16 25 36 49 64 81 100

9: Enter the value of N for printing cubes: 9
Cubes of the first 9 natural numbers:
1 8 27 64 125 216 343 512 729

10: Enter the value of N for printing a table: 7
Table of 7:
7 x 1 = 7
7 x 2 = 14
7 x 3 = 21
7 x 4 = 28
7 x 5 = 35
7 x 6 = 42
7 x 7 = 49
7 x 8 = 56
7 x 9 = 63
7 x 10 = 70
PS D:\computer stuff\ASSigment>
```