Assignment 5

More iterative control

#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");

// 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");

// 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);

}

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;

}



