int main()

{

int\* ptr;

int n;

printf("Enter number of elements:");

scanf("%d",&n);

ptr = (int\*)malloc(n \* sizeof(int));

if (ptr == NULL) {

printf("Memory not allocated.\n");

exit(0);

}

else {

printf("Memory successfully allocated using malloc.\n");

printf("Enter elements of array\n");

for (int i = 0; i < n; i++) {

scanf("%d", &ptr[i]);

}

printf("The elements of the array are: ");

for (int i = 0; i < n; i++) {

printf("%d, ", ptr[i]);

}

}

free(ptr);

printf("Memory Freed\n");

ptr = (int\*)calloc(n, sizeof(int));

if (ptr == NULL) {

printf("Memory not allocated.\n");

exit(0);

}

else {

printf("Memory successfully allocated using calloc.\n");

printf("Enter elements of array\n");

for (int i = 0; i < n; i++) {

scanf("%d", &ptr[i]);

}

printf("The elements of the array are: ");

for (int i = 0; i < n; i++) {

printf("%d, ", ptr[i]);

}

int n1;

printf("Enter new size for realloc\n");

scanf("%d", &n1);

ptr = (int\*)realloc(ptr, n1 \* sizeof(int));

printf("Memory successfully re-allocated using realloc.\n");

printf("Enter more variables: \n");

for (int i = n; i < n1; ++i) {

scanf("%d", &ptr[i]);

}

printf("The elements of the array are: ");

for (int i = 0; i < n1; ++i) {

printf("%d, ", ptr[i]);

}

free(ptr);

printf("Memory Freed\n");

}

}