

Assignment 9

Problem (A):

Implement malloc() in C programming language. For example, look at the following code for dynamic memory allocation-

```
#define N 10
int main()
{
    int i, *array;
    printf("\nEnter N numbers: ");
    array = MyOwnMalloc( sizeof( int ) * N );
    for( i=0; i<N; i++)
        scanf("%d", &array[i]);
    printf("\n The numbers are: \n");
    for(i=0; i<N; i++)
        printf(" %d", array[i]);
    return 0;
}
```

So, your job is to implement the **MyOwnMalloc()** function. The above code segment is showing only for integer type, but your job is to implement it for any type allocation.

Hints:

- Learn about system call *brk()*, *sbrk()* from man page.
<http://man7.org/linux/man-pages/man2/sbrk.2.html>
- Google for example programs

Problem (B):

Implement free() in C programming language as **MyOwnfree()** and use it to free the allocated memory by the your code **MyOenMalloc()** developed in Problem (A).