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**North South University**

**CSE 331L**

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| ***Microprocessor Interfacing & Embedded System (Lab)*** |

**HOMEWORK**

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**Dynamic Array**

Dynamic arrays are those arrays which are allocated memory at the run time with the help of heap. Thus Dynamic array can change its size during run time. Dynamic arrays overcome a limit of static arrays, which have a fixed capacity that needs to be specified at allocation.

A dynamic array is not the same thing as a dynamically allocated array, which is an array whose size is fixed when the array is allocated, although a dynamic array may use such a fixed-size array as a back end.

So, this is a brief definition about dynamic array.

**Example of Dynamic Array**

An example of dynamic array in C is given below:

**int main(int argc, char \*argv[])**

**{**

**int j;**

**double\* p;**

**p = calloc(10, sizeof(double) );**

**for ( j = 0; j < 10; j++ )**

**\*(p + j) = j;**

**for ( j = 0; j < 10; j++ )**

**printf("\*(p + %d) = %lf\n", j, \*(p+j) );**

**free(p);**

**putchar('\n');**

**p = calloc(4, sizeof(double) );**

**for ( j = 0; j < 4; j++ )**

**\*(p + j) = j\*j**

**for ( j = 0; j < 4; j++ )**

**printf("\*(p + %d) = %lf\n", j, \*(p+j) );**

**free(p);**

**}**