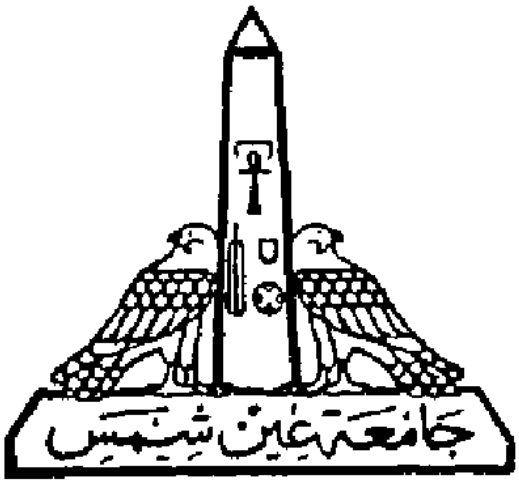

High-Performance Computing
CSE415
Lab 2

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Code:-

```
//gcc -fopenmp vectorAddition.c
//./a.out
#include <omp.h>
#include <stdio.h>
#define N 8
int main()
{
	int a[8] = {1,1,1,1,1,1,1,1};
	int b[8] = {1,1,1,1,1,1,1,1};
	int c[8] = {0};
	// Divide for loop to 8/2 = 4 pices
	int chunk = 2;

	omp_set_num_threads(4);
	#pragma omp parallel
	{
	  int id = omp_get_thread_num();

	  // run time 3.main.c modifivation
	  #pragma omp single
	  printf("Dynamic Output\n");

	  #pragma omp for schedule(dynamic,chunk)
	  for(int i = 0; i < N; i++)
	  {
	    c[i] = a[i] + b[i];
	    printf("Thread %d : c[%d] = %d\n",id,i,c[i]);
	  }

	  // run time 4.main.c modifivation
	  #pragma omp single
	  printf("Guided Output\n");

	  #pragma omp for schedule(guided,chunk)
	  for(int i = 0; i < N; i++)
	  {
	    c[i] = a[i] + b[i];
	    printf("Thread %d : c[%d] = %d\n",id,i,c[i]);
	  }

	  // run time 5.main.c modifivation
	  #pragma omp single
	  printf("Run Time Output\n");

	  #pragma omp for schedule(static,chunk)
	  for(int i = 0; i < N; i++)
	  {
	    c[i] = a[i] + b[i];
```

```
            printf("Thread %d : c[%d] = %d\n",id,i,c[i]);
          }

        }
return 0;
}
```