PDC Lab 7

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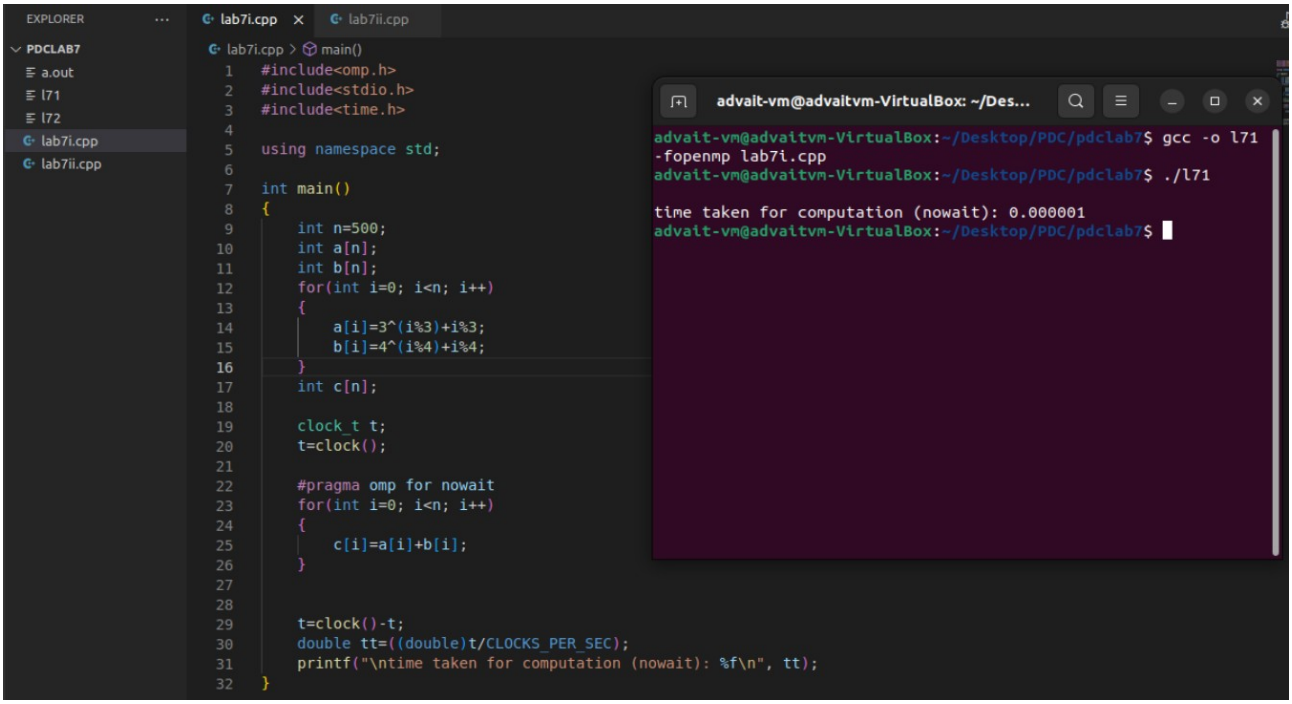
20BCE1143

Q1) Parallel – nowait



Code:

```
#include<omp.h>
#include<stdio.h>
#include<time.h>

using namespace std;

int main()
{
  int n=500;
  int a[n];
  int b[n];
  for(int i=0; i<n; i++)
  {
    a[i]=3^(i%3)+i%3;
    b[i]=4^(i%4)+i%4;
```

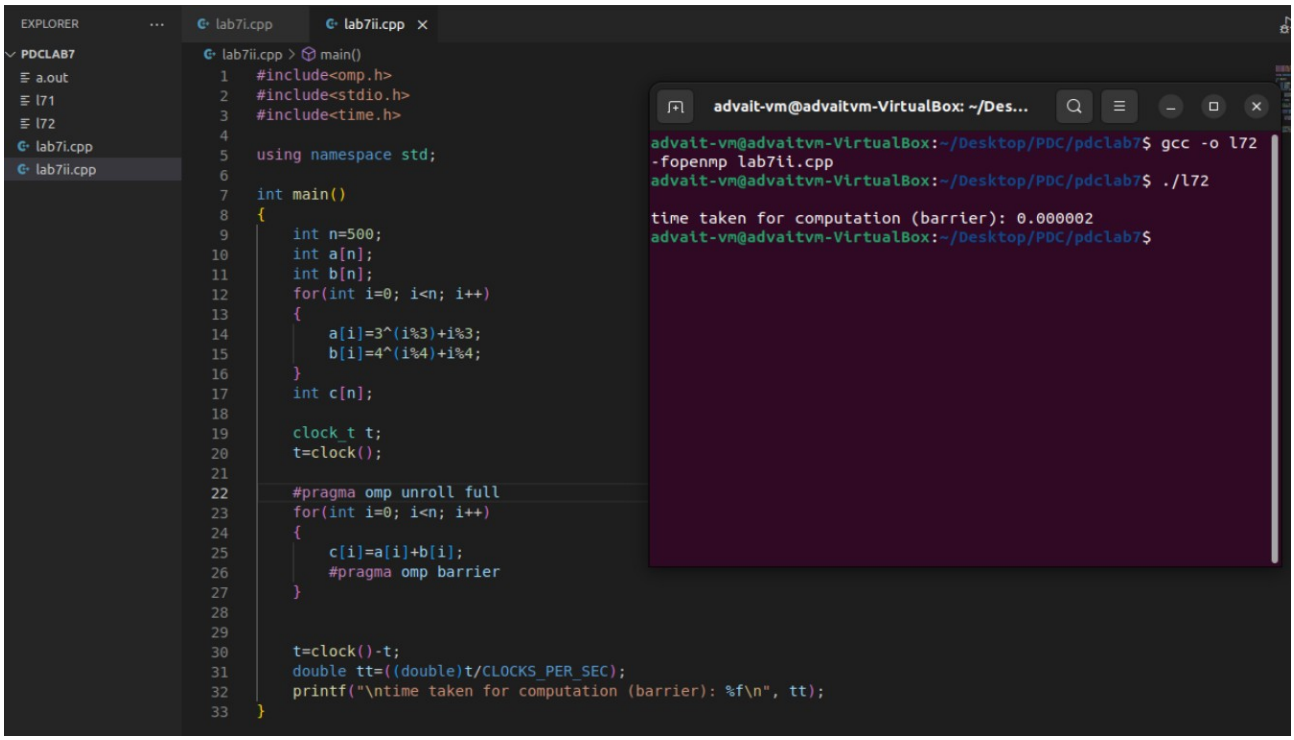
```
  }
  int c[n];

  clock_t t;
  t=clock();

  #pragma omp for nowait
  for(int i=0; i<n; i++)
  {
    c[i]=a[i]+b[i];
  }


  t=clock()-t;
  double tt=((double)t/CLOCKS_PER_SEC);
  printf("\ntime taken for computation (nowait): %f\n", tt);
}
```

Q2) Parallel – Barrier



Code:

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using namespace std;

int main()
{
  int n=500;
  int a[n];
  int b[n];
  for(int i=0; i<n; i++)
  {
    a[i]=3^(i%3)+i%3;
    b[i]=4^(i%4)+i%4;
  }
  int c[n];

  clock_t t;
  t=clock();

  #pragma omp unroll full
  for(int i=0; i<n; i++)
  {
    c[i]=a[i]+b[i];
    #pragma omp barrier
  }


  t=clock()-t;
  double tt=((double)t/CLOCKS_PER_SEC);
  printf("\ntime taken for computation (barrier): %f\n", tt);
}
```