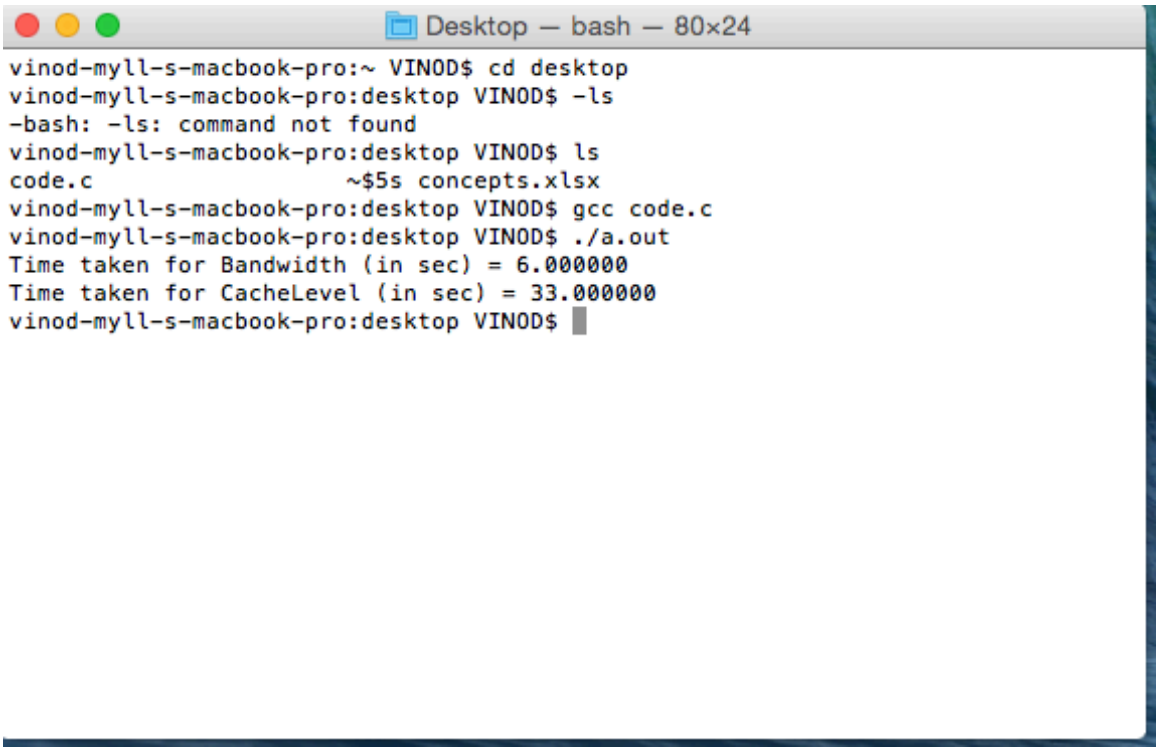
```c
#include <stdio.h>
#include <time.h>
#include <math.h>

int cachelevel() {
    int steps = 1024 * 1024 * 1024, i;
    int array[1024 * 1024];
    int lengthMod = (1024 * 1024) - 1;

    for (i = 0; i < steps; i++) {
        array[(i * 16) & lengthMod]++;
    }
return 0;
}

int bandwidth() {
    int sum = 0, k = 1, mul = 1, j = 1;
    while(k <= 1024 * 1024 * 1024)
    {
        sum = sum + k;
        mul = mul * sum;
        j = j * k;
        k++;

}
return 0;
}

int main() {
    double totalTimeTaken;
    time_t startTime, endTime;

    startTime =(double) clock()/(double)CLOCKS_PER_SEC;
    bandwidth();
    endTime = (double) clock()/(double)CLOCKS_PER_SEC;
    totalTimeTaken = endTime - startTime;
    printf("Time taken for Bandwidth (in sec) = %f \n",
totalTimeTaken);

    startTime =(double) clock()/(double)CLOCKS_PER_SEC;
    cachelevel();
    endTime = (double) clock()/(double)CLOCKS_PER_SEC;
    totalTimeTaken = endTime - startTime;
    printf("Time taken for CacheLevel (in sec) = %f \n",
totalTimeTaken);
}
```

OUTPUT:


Desktop — bash — 80×24
vinod-myll-s-macbook-pro:~ VINOD$ cd desktop
vinod-myll-s-macbook-pro:desktop VINOD$ -ls
-bash: -ls: command not found
vinod-myll-s-macbook-pro:desktop VINOD$ ls
code.c ~$5s concepts.xlsx
vinod-myll-s-macbook-pro:desktop VINOD$ gcc code.c
vinod-myll-s-macbook-pro:desktop VINOD$ ./a.out
Time taken for Bandwidth (in sec) = 6.000000
Time taken for CacheLevel (in sec) = 33.000000
vinod-myll-s-macbook-pro:desktop VINOD$