

GNG 1106 Lab

Introduction to CodeBlocks

C++

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Agenda

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- Getting Started
 - ▣ Download *CodeBlocks*
 - ▣ Create and compile your first program
- Console applications
- The fundamental parts of *CodeBlocks*
- The students and the TA duties
- General exercises

Getting Started

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- **Step 1: Downloading**
 - ▣ Download CodeBlocks for free from:
 - <http://www.codeblocks.org/downloads/26>

- **Step 2: You may need to choose a compiler linker**
 - ▣ *codeblocks-12.11mingw-setup_user.exe*

- Wiki
- Forums
- Forums (mobile)
- Nightlies
- BugTracker
- PatchTracker
- Browse SVN
- Browse SVN log



Windows 2000 / XP / Vista / 7:

File	Date	Size	Download from
codeblocks-12.11-setup.exe			Berlios or Sourceforge.net
codeblocks-12.11-setup_user.exe	28 Nov 2012	28.2 MB	Berlios or Sourceforge.net
codeblocks-12.11mingw-setup.exe			Berlios or Sourceforge.net
codeblocks-12.11mingw-setup_user.exe ←	28 Nov 2012	96.8 MB	Berlios or Sourceforge.net

NOTE: The codeblocks-12.11mingw-setup.exe file *includes* the GCC compiler and GDB debugger from TDM-GCC (version 4.7.1, 32 bit).

NOTE: The codeblocks-12.11(mingw)-setup_user.exe will NOT request ADMIN rights and can be installed into write accessible folders only. Trying to install to a folder like "Program Files" will result in an access error therefore. Use this special installer if you do not have admin access on your Windows machine. IF UNSURE, USE "codeblocks-12.11mingw-setup.exe"!

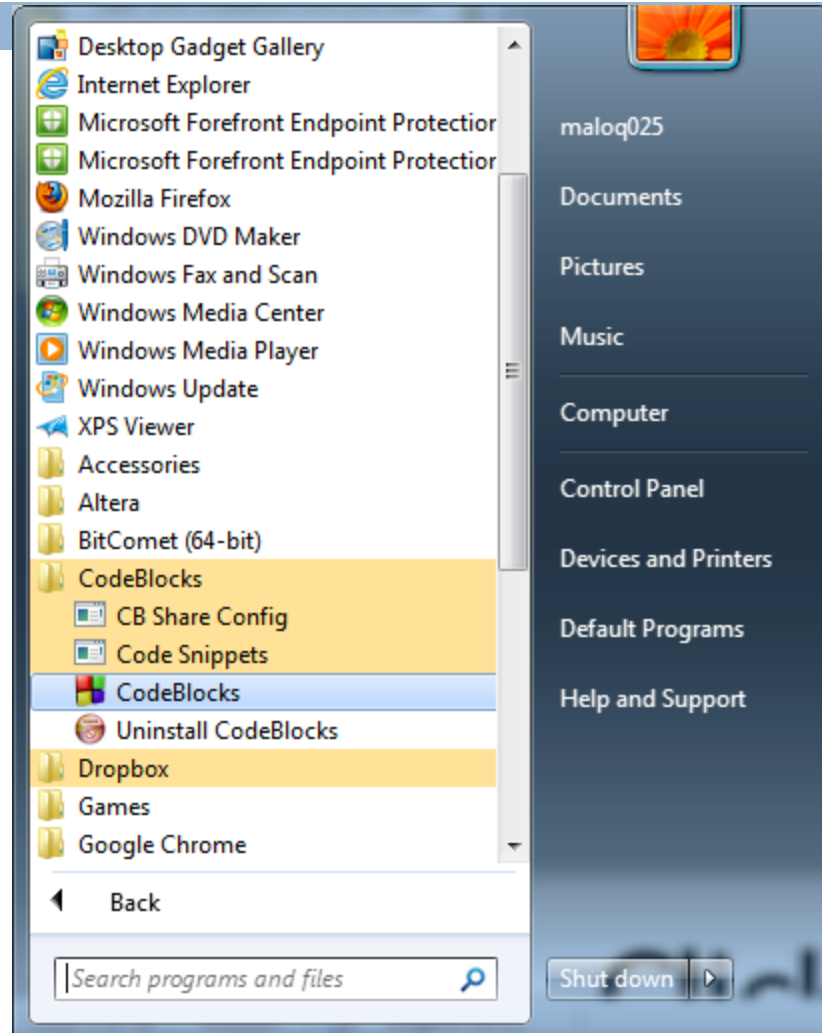


Linux 32-bit:

Distro	File	Date	Size	Download from
	codeblocks_12.11-1_i386-debian-testing.tar.bz2 (wheezy)	01 Dec 2012	13.0 MB	Berlios or Sourceforge.net
	codeblocks-dbg_12.11-1_i386-debian-testing.tar.bz2 (wheezy)	01 Dec 2012	39.9 MB	Berlios
	codeblocks_12.11-2_i386-debian-stable.tar.bz2 (squeeze)	11 Jan 2013	13.2 MB	Berlios
	codeblocks-dbg_12.11-2_i386-debian-stable.tar.bz2 (squeeze)	11 Jan 2013	27.3 MB	Berlios
	codeblocks-12.11-1.el16.i686.tar.bz2 (fc16)	01 Dec 2012	10.7 MB	Berlios or Sourceforge.net
	codeblocks-dbg-12.11-1.el16.i686.tar.bz2 (fc16)	01 Dec 2012	50.9 MB	Berlios or Sourceforge.net
	codeblocks-12.11-1.el17.i686.tar.bz2 (fc17)	01 Dec 2012	10.6 MB	Berlios or Sourceforge.net
	codeblocks-dbg-12.11-1.el17.i686.tar.bz2 (fc17)	01 Dec 2012	46.0 MB	Berlios or Sourceforge.net
	codeblocks-12.11-1.el18.i686.tar.bz2 (fc18)	01 Dec 2012	10.8 MB	Berlios or Sourceforge.net
	codeblocks-dbg-12.11-1.el18.i686.tar.bz2 (fc18)	01 Dec 2012	29.8 MB	Berlios or Sourceforge.net

Open your CodeBlocks from your start menu

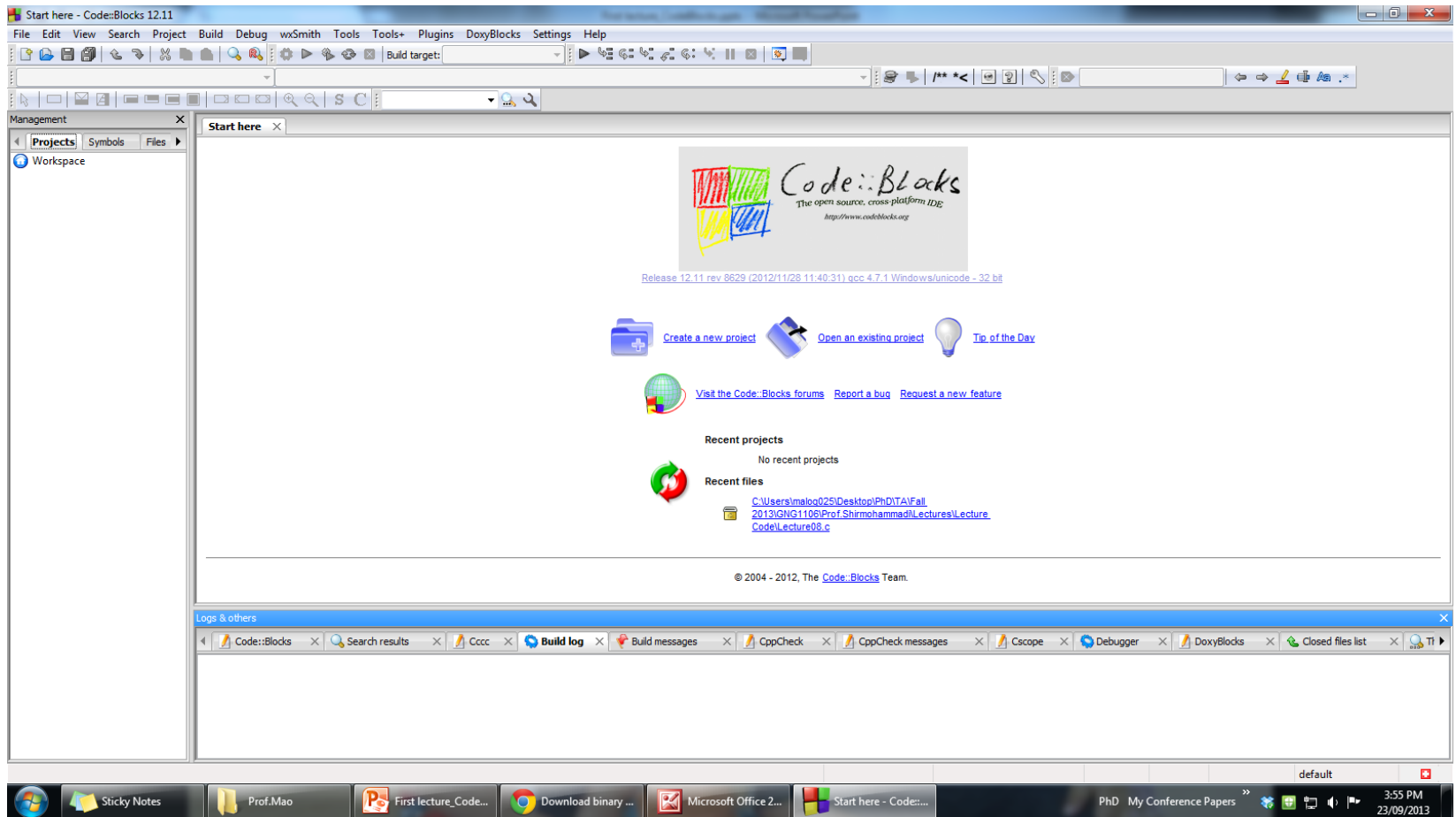
5



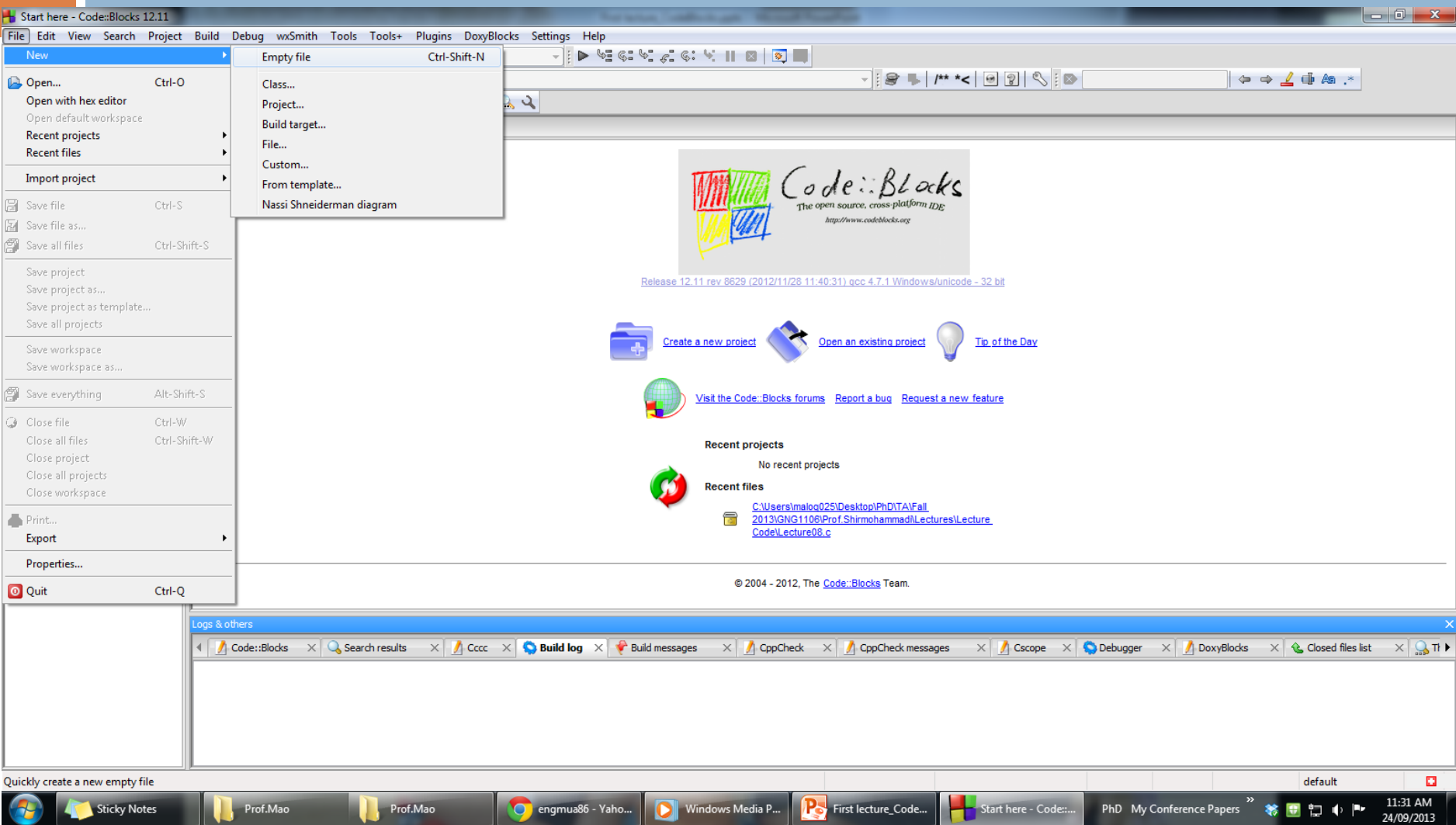
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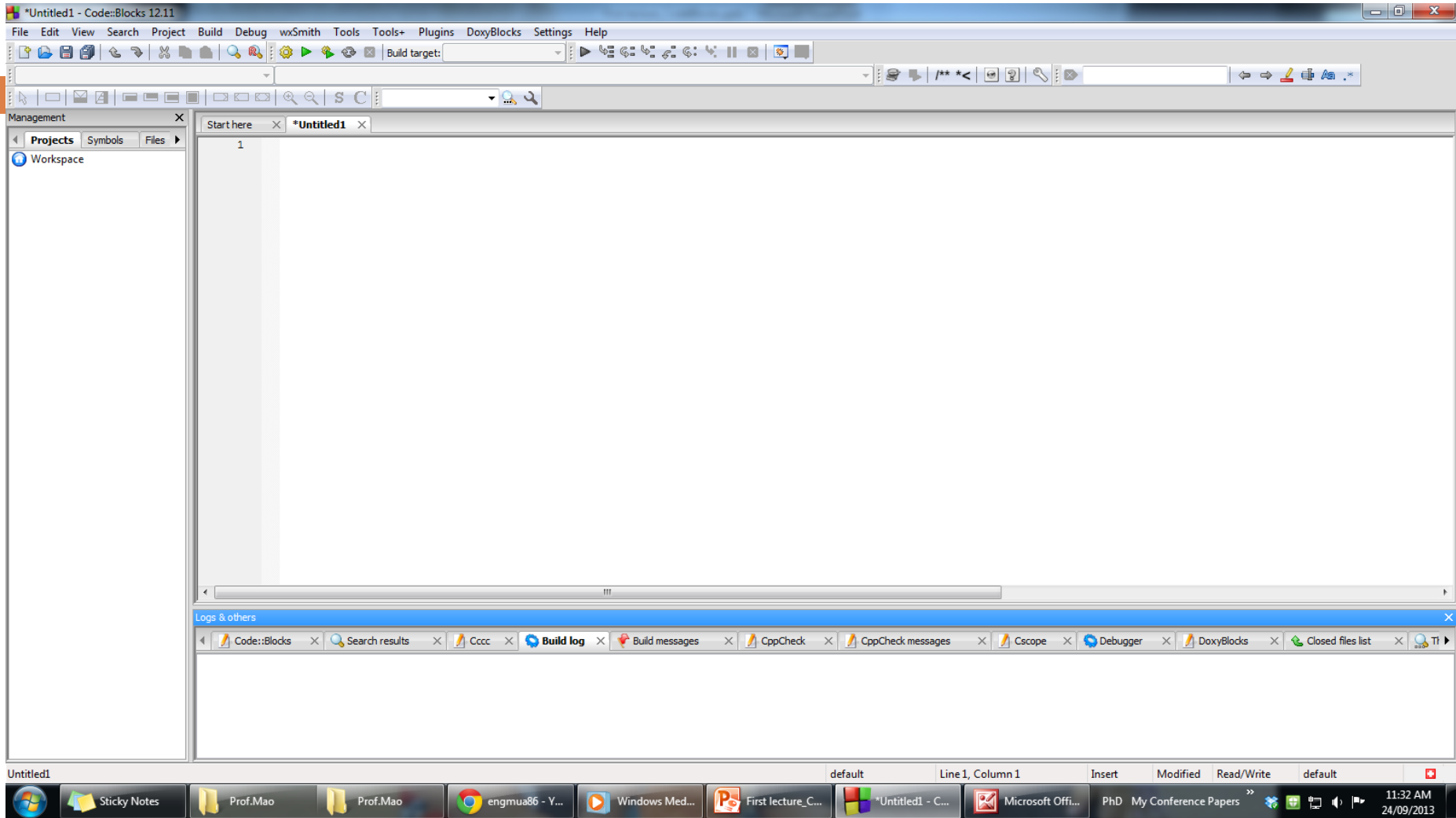
Start CodeBlocks: First Page

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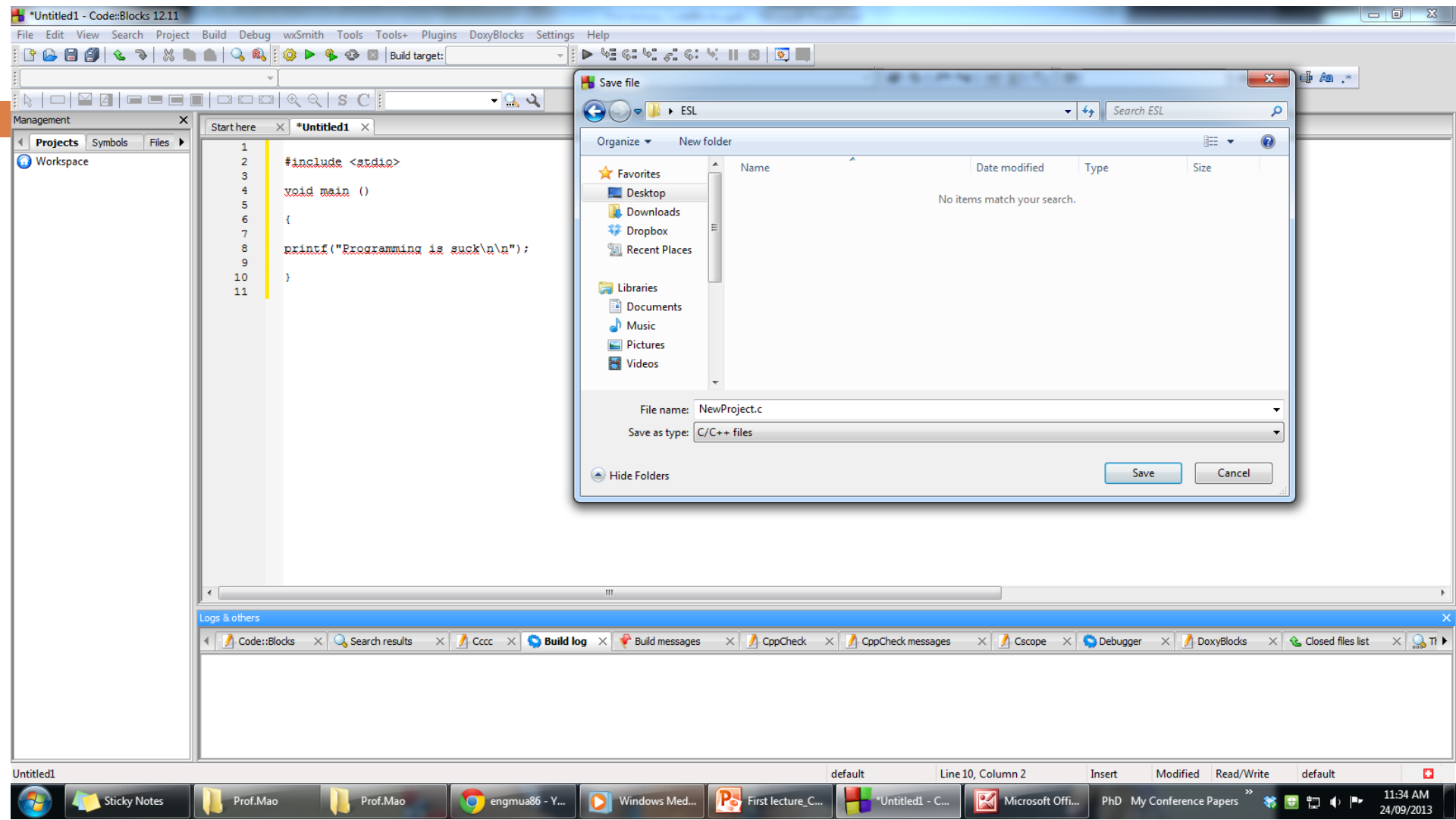


Start your first project by:

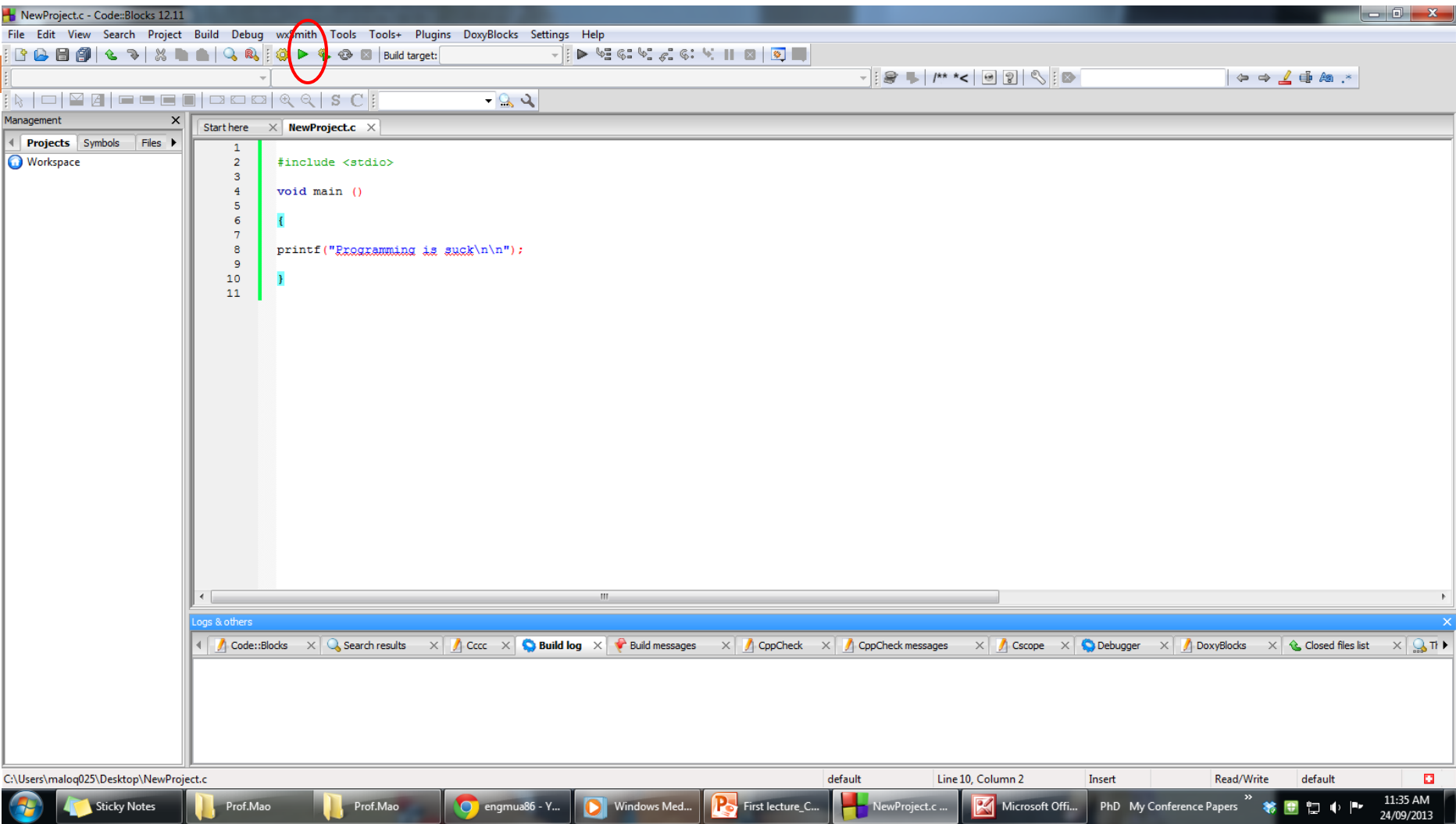




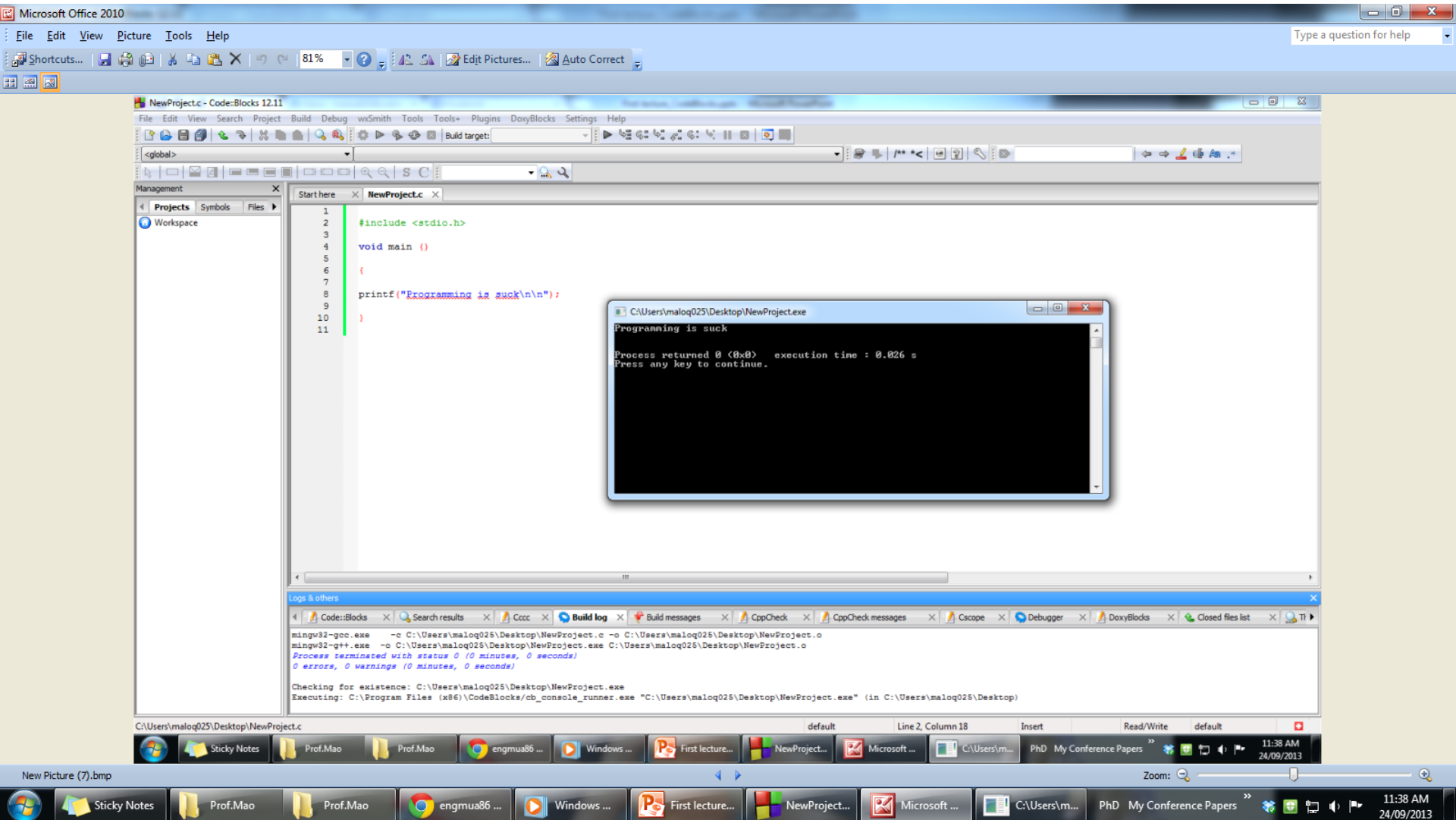
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The students duties

- Students are expected to work on their tasks during the labs.
- The assignments will be posted at the *Virtual Campus* and the students will also submit their assignments through the *Virtual Campus* .
- The students are given at least two weeks time for each assignment.
- The students should submit their solution on or before the due date of each assignment.

The TA duties

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- The TA are expected to answer students' questions about the assignments without giving away the solution.
- TA are also marker (mark the lab report).
- The TA will enter the assignment marks and student attendance information in *Moodle*.
- Provide some technical example and exercises to the students.

Work Load

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	Labs OR DGDs	Location
1	DGD 01 (25-26, September)	SITE 0130, SITE 2060 SITE 0130
2	Lab 01 (2-3, October)	SITE 0130, SITE 2060 SITE 0130
3	DGD 02 (9-10, October)	SITE 0130, SITE 2060 SITE 0130
4	Lab 02 (23-24, October)	SITE 0130, SITE 2060 SITE 0130
5	DGD 03 (30-31, October)	SITE 0130, SITE 2060 SITE 0130
6	Lab 03 (6-7, November)	SITE 0130, SITE 2060 SITE 0130
7	DGD 04 (13-14, November)	SITE 0130, SITE 2060 SITE 0130
8	Lab 04 (20-21, November)	SITE 0130, SITE 2060 SITE 0130
9	DGD 05 (27-28, November)	SITE 0130, SITE 2060 SITE 0130
10	Lab 05 (4-5, December)	SITE 0130, SITE 2060 SITE 0130

Today

Exercise 1: Trace the following program ?

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```
//C hello world example
```

```
#include <stdio.h>
int main()
{
    printf("Hello world\n");
    return 0;
}
```

A screenshot of a Windows command prompt window. The title bar reads "E:\programmingsimplified.com\c\hello-world.exe". The window content shows the output of the "hello world" program: "Hello world" on the first line, "Process returned 0 (0x0) execution time : 0.055 s" on the second line, and "Press any key to continue." on the third line. The window has standard Windows window controls (minimize, maximize, close) in the top right corner.

```
// print an integer
```

```
#include <stdio.h>
void main()
{ int a;
printf("Enter an integer\n");
scanf("%d", &a);
printf("Integer that you have
entered is %d\n", a); }
```

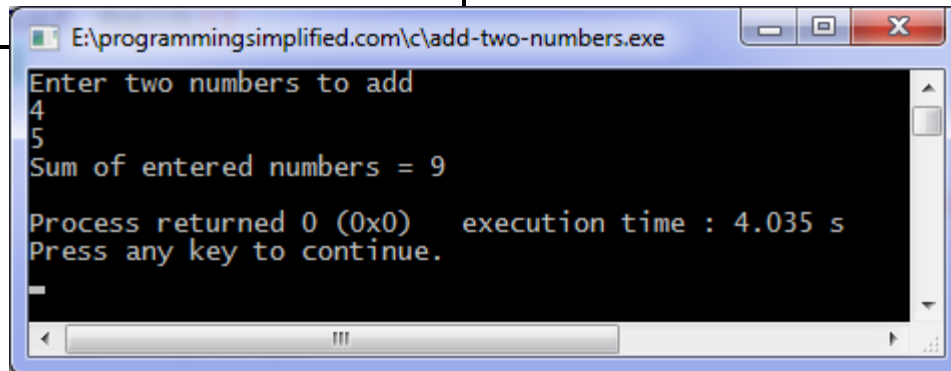
A screenshot of a Windows command prompt window. The title bar reads "E:\programmingsimplified.com\c\integer.exe". The window content shows the output of the "print an integer" program: "Enter an integer" on the first line, "99" on the second line, "Integer that you have entered is 99" on the third line, "Process returned 0 (0x0) execution time : 1.949 s" on the fourth line, and "Press any key to continue." on the fifth line. The window has standard Windows window controls in the top right corner.

Exercise 2

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```
//add two numbers

#include<stdio.h>
Void main()
{int a, b, c;
printf("Enter two numbers to add\n");
scanf("%d%d", &a, &b);
c = a + b;
printf("Sum of entered numbers = %d\n", c);
}
```



```
E:\programmingsimplified.com\c\add-two-numbers.exe
Enter two numbers to add
4
5
Sum of entered numbers = 9
Process returned 0 (0x0)   execution time : 4.035 s
Press any key to continue.
-
```

Exercise 3

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//addition, subtraction, multiplication and division

```
#include <stdio.h>
Void main()
{int first, second, add, subtract, multiply;
float divide;
printf("Enter two integers\n");
scanf("%d%d", &first, &second);

add = first + second;
subtract = first - second;
multiply = first * second;
divide = first / (float)second;
//typecasting

printf("Sum = %d\n", add);
printf("Difference = %d\n", subtract);
printf("Multiplication = %d\n", multiply);
printf("Division = %.2f\n", divide);}
```

```
E:\programmingsimplified.com\c\arithmetic-operations.exe
Enter two integers
7 3
Sum = 10
Difference = 4
Multiplication = 21
Division = 2.33
Process returned 0 (0x0) execution time : 14.116 s
Press any key to continue.
```

Thank You