

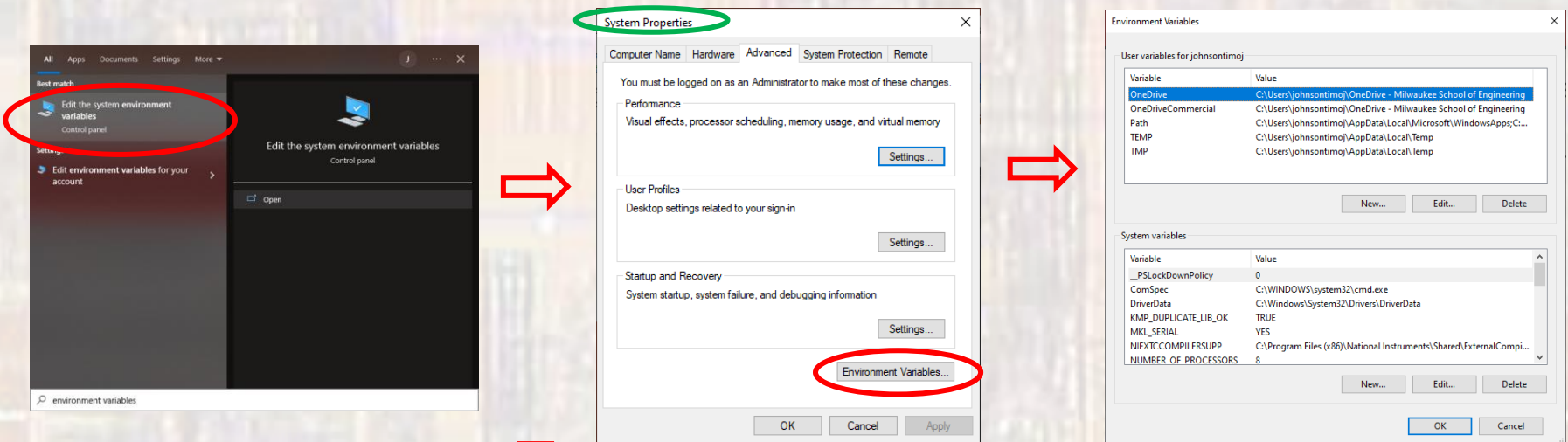
Command Line

Last updated 2/13/23

These slides introduce compiling C in the command line

Command Line

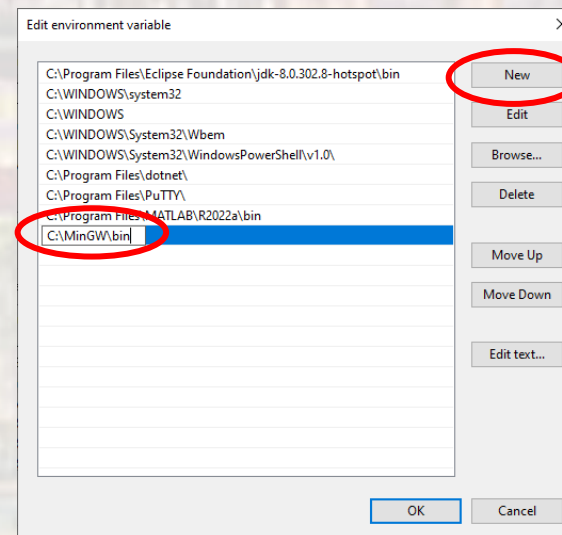
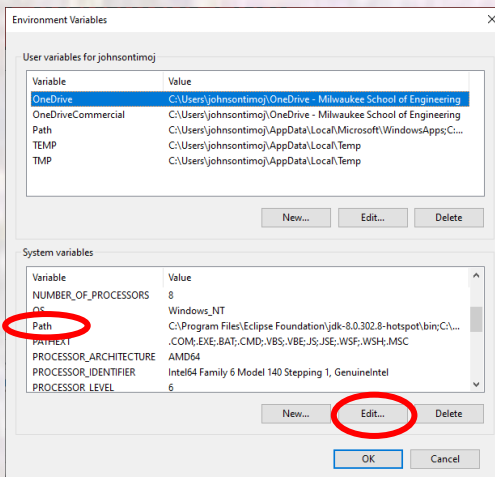
- C can be compiled from the command line
 - Modify the locations Windows searches when executing C programs
 - **Only do this once**
 - Enter **environment variables** in the **Windows search box**
 - Select **Edit the system environment variables**
 - In **System Properties** select **Environment Variables**



Continued₂

Command Line

- C can be compiled from the command line
 - Modify the locations Windows searches when executing C programs – cont'd
 - Scroll down in the **System variables** section to **path**
 - Highlight **path** and select **Edit**
 - Select **New**
 - Type in **C:\MinGW\bin**
 - **Ok** out of all the windows



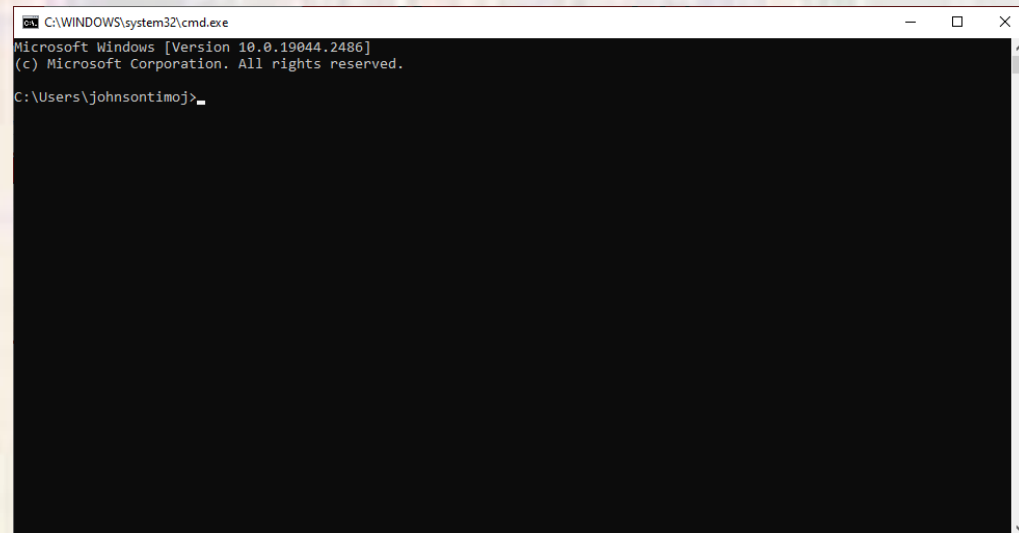
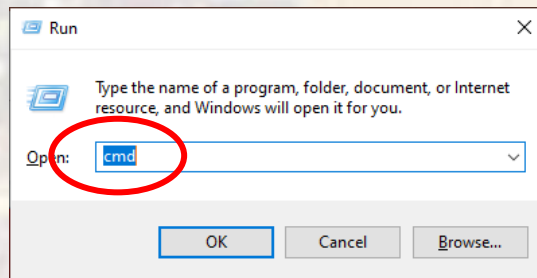
Command Line

- Compile and run code
 1. Create your code file
 - Notepad, notepad++, ...
 - Do not use office tools like Word or PowerPoint
 2. Open a cmd prompt window
 - **Windows Key + R**
 - Type in **cmd** and click **OK**

```
hello.c
////////////////////////////////
//  hello.c
//
//  created 2/13/23 by tj
//
////////////////////////////////
//  Hello world - command Line
//
//  inputs - none
//  output - prints hello ele1601
//
////////////////////////////////
#include <stdio.h>

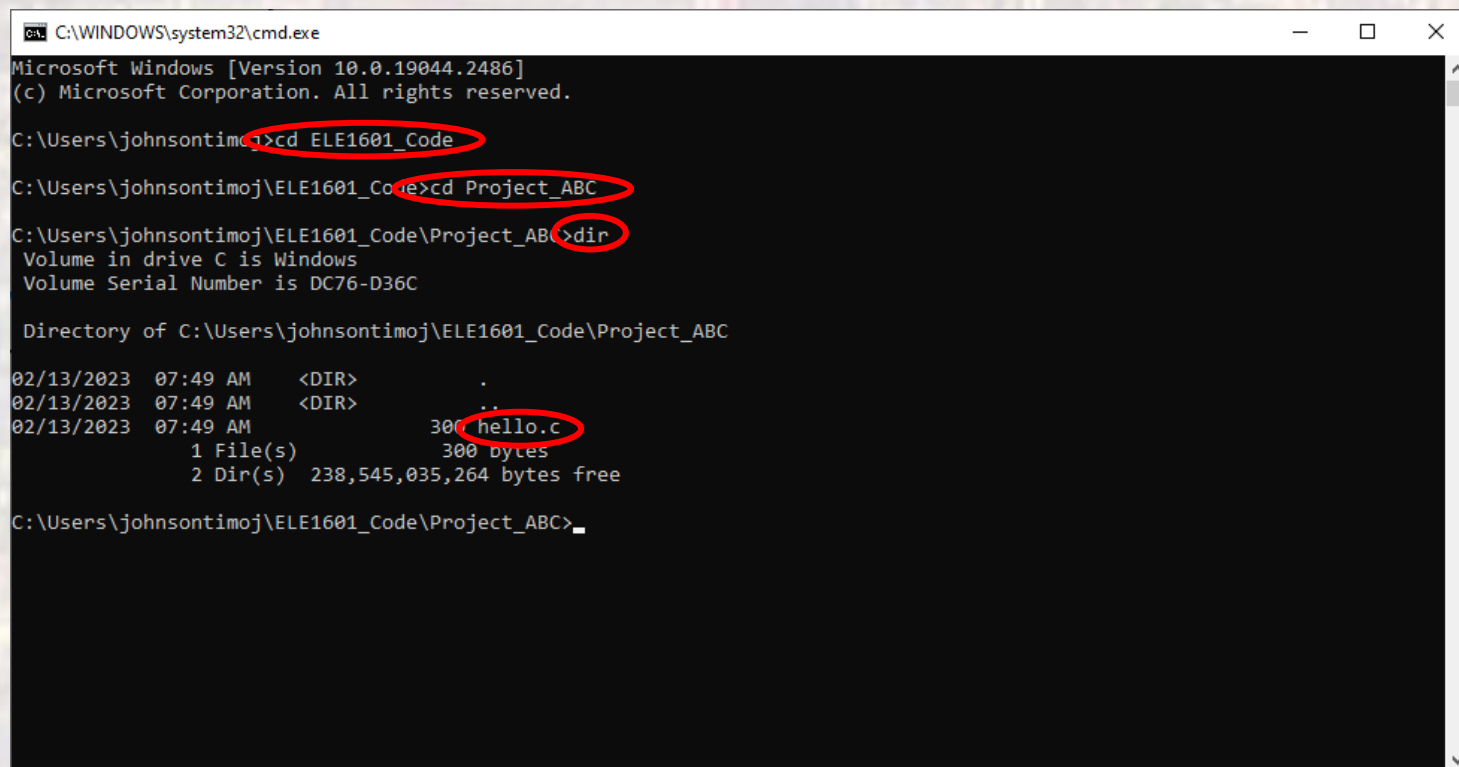
int main(void){
    printf("Hello ELE1601");

    return 0;
} // end main
```



Command Line

- Compile and run code
 3. Navigate to your code directory
 - Use `cd folder name` to traverse the directories (folders)
 - Make sure your file is there using `dir`



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.19044.2486]
(c) Microsoft Corporation. All rights reserved.

C:\Users\johnsontim>cd ELE1601_Code
C:\Users\johnsontim\ELE1601_Code>cd Project_ABC
C:\Users\johnsontim\ELE1601_Code\Project_ABC>dir
Volume in drive C is Windows
Volume Serial Number is DC76-D36C

Directory of C:\Users\johnsontim\ELE1601_Code\Project_ABC

02/13/2023  07:49 AM    <DIR>          .
02/13/2023  07:49 AM    <DIR>          ..
02/13/2023  07:49 AM                300 hello.c
               1 File(s)                300 bytes
               2 Dir(s)  238,545,035,264 bytes free

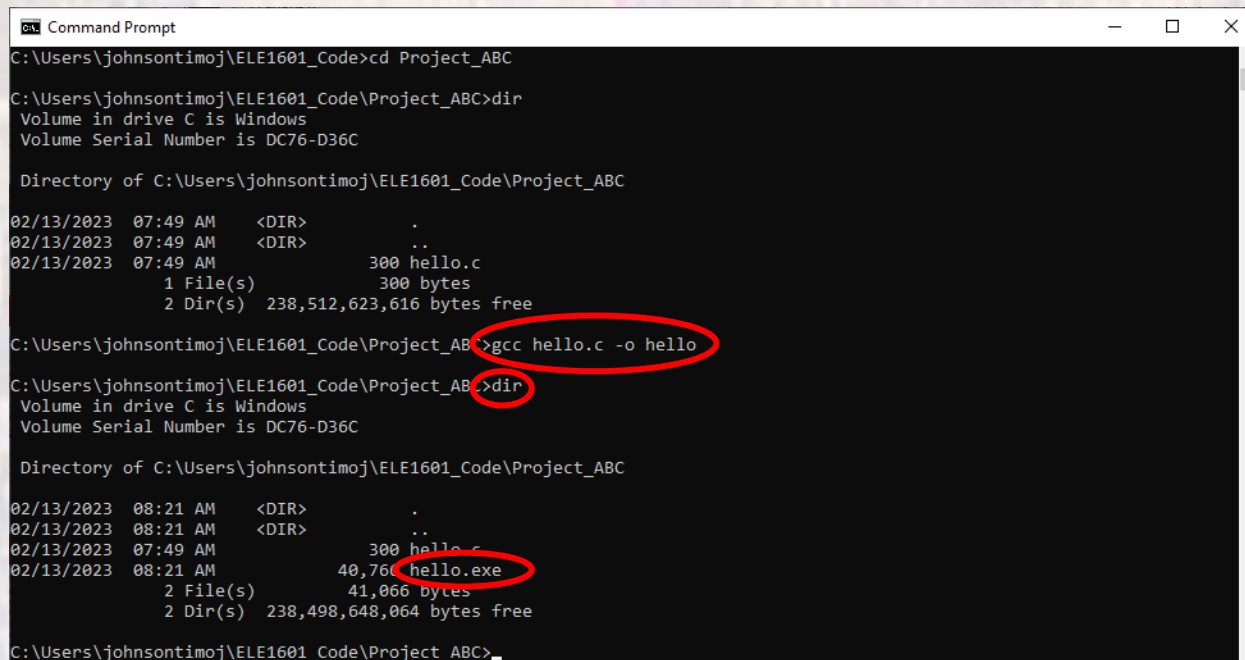
C:\Users\johnsontim\ELE1601_Code\Project_ABC>
```

Command Line

- Compile and run code

4. Type `gcc code_file_name -o output_file_name`

- Here code file is `hello.c` and output file is `hello`
- A file called `output_file_name.exe` is created (`hello.exe`)



```
Command Prompt
C:\Users\johnsontimoj\ELE1601_Code>cd Project_ABC
C:\Users\johnsontimoj\ELE1601_Code\Project_ABC>dir
Volume in drive C is Windows
Volume Serial Number is DC76-D36C

Directory of C:\Users\johnsontimoj\ELE1601_Code\Project_ABC
02/13/2023  07:49 AM  <DIR>          .
02/13/2023  07:49 AM  <DIR>          ..
02/13/2023  07:49 AM                300 hello.c
                1 File(s)        300 bytes
                2 Dir(s)  238,512,623,616 bytes free

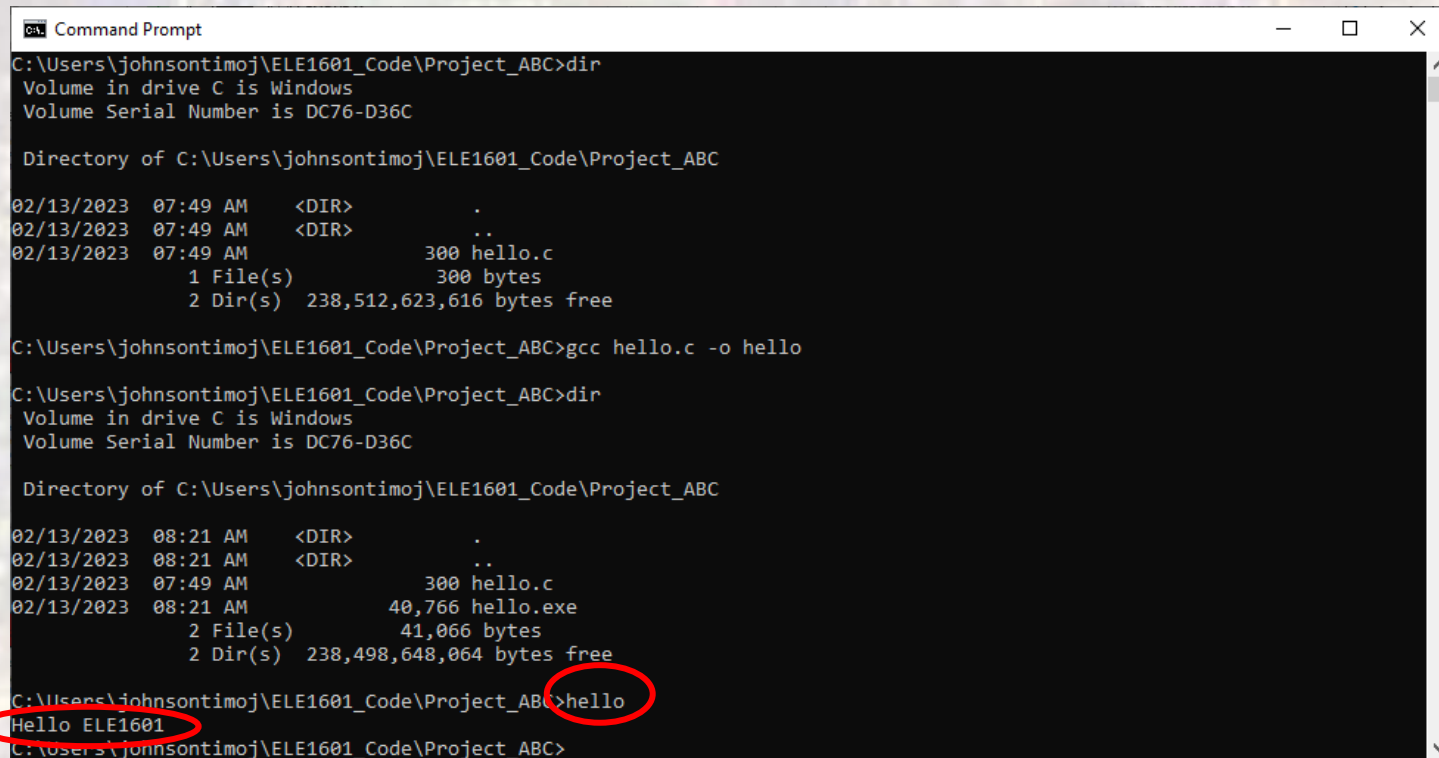
C:\Users\johnsontimoj\ELE1601_Code\Project_ABC>gcc hello.c -o hello
C:\Users\johnsontimoj\ELE1601_Code\Project_ABC>dir
Volume in drive C is Windows
Volume Serial Number is DC76-D36C

Directory of C:\Users\johnsontimoj\ELE1601_Code\Project_ABC
02/13/2023  08:21 AM  <DIR>          .
02/13/2023  08:21 AM  <DIR>          ..
02/13/2023  07:49 AM                300 hello.c
02/13/2023  08:21 AM           40,766 hello.exe
                2 File(s)        41,066 bytes
                2 Dir(s)  238,498,648,064 bytes free

C:\Users\johnsontimoj\ELE1601_Code\Project_ABC>
```

Command Line

- Compile and run code
 5. Type `output_file_name` to run your code



```
Command Prompt
C:\Users\johnsontimoj\ELE1601_Code\Project_ABC>dir
Volume in drive C is Windows
Volume Serial Number is DC76-D36C

Directory of C:\Users\johnsontimoj\ELE1601_Code\Project_ABC

02/13/2023  07:49 AM    <DIR>          .
02/13/2023  07:49 AM    <DIR>          ..
02/13/2023  07:49 AM                300 hello.c
               1 File(s)                300 bytes
               2 Dir(s)  238,512,623,616 bytes free

C:\Users\johnsontimoj\ELE1601_Code\Project_ABC>gcc hello.c -o hello

C:\Users\johnsontimoj\ELE1601_Code\Project_ABC>dir
Volume in drive C is Windows
Volume Serial Number is DC76-D36C

Directory of C:\Users\johnsontimoj\ELE1601_Code\Project_ABC

02/13/2023  08:21 AM    <DIR>          .
02/13/2023  08:21 AM    <DIR>          ..
02/13/2023  07:49 AM                300 hello.c
02/13/2023  08:21 AM            40,766 hello.exe
               2 File(s)            41,066 bytes
               2 Dir(s)  238,498,648,064 bytes free

C:\Users\johnsontimoj\ELE1601_Code\Project_ABC>hello
Hello ELE1601
C:\Users\johnsontimoj\ELE1601_Code\Project_ABC>
```