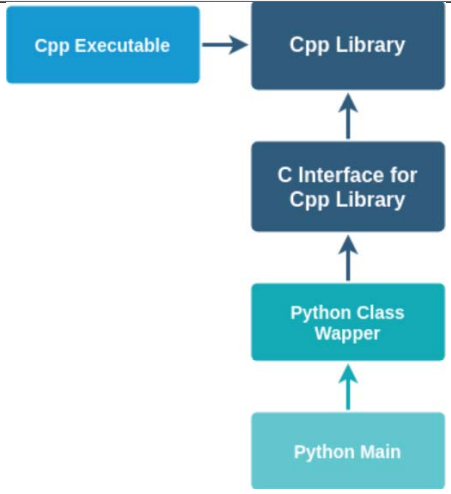


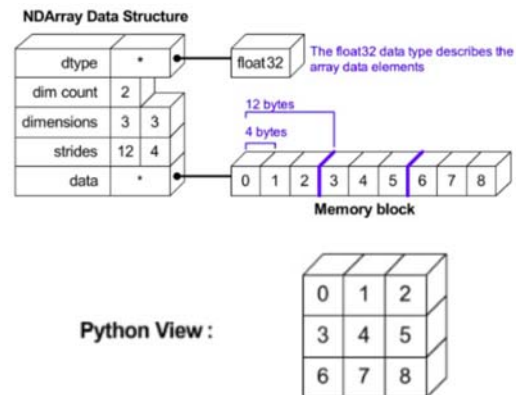
# Lab 7 Using C++ In Python & Lab 8 Using C++ In Python for NImage

練習目的	提供的程式碼	需要的開發環境/安裝套件	執行指令與重點說明
Using C++ In Python	<b>VS2017/VS2022:</b> MyDLL.h, MyDLL.cpp, Unmanaged_Calculator.h, Unmanaged_Calculator.cpp  <b>Python:</b> Lab_7.py	 <pre> graph BT     PM[Python Main] --&gt; PCW[Python Class Wrapper]     PCW --&gt; CIL[C Interface for Cpp Library]     CIL --&gt; CL[Cpp Library]     CL --&gt; CE[Cpp Executable] </pre>	<b>python Lab_7.py</b>  ✓ 確認讀取 MyDLL.dll 的路徑 ✓ 透過 ctypes 把 c-style function [Flat C] 包裝成 python 的 class ✓ Reference: <a href="https://blog.simonxander.tw/2020/03/python-cpp-library-class.html">https://blog.simonxander.tw/2020/03/python-cpp-library-class.html</a>
Using C++ In Python for NImage	<b>VS2017/VS2022:</b> NImage.h, NImage.cpp, NImageDLL.h, NImageDLL.cpp	<b>pip install matplotlib</b> 安裝繪圖套件	<b>python Lab_8.py</b>  ✓ NImageDLL.dll 較原先多了 GetSize 及 MemCopy 的函式

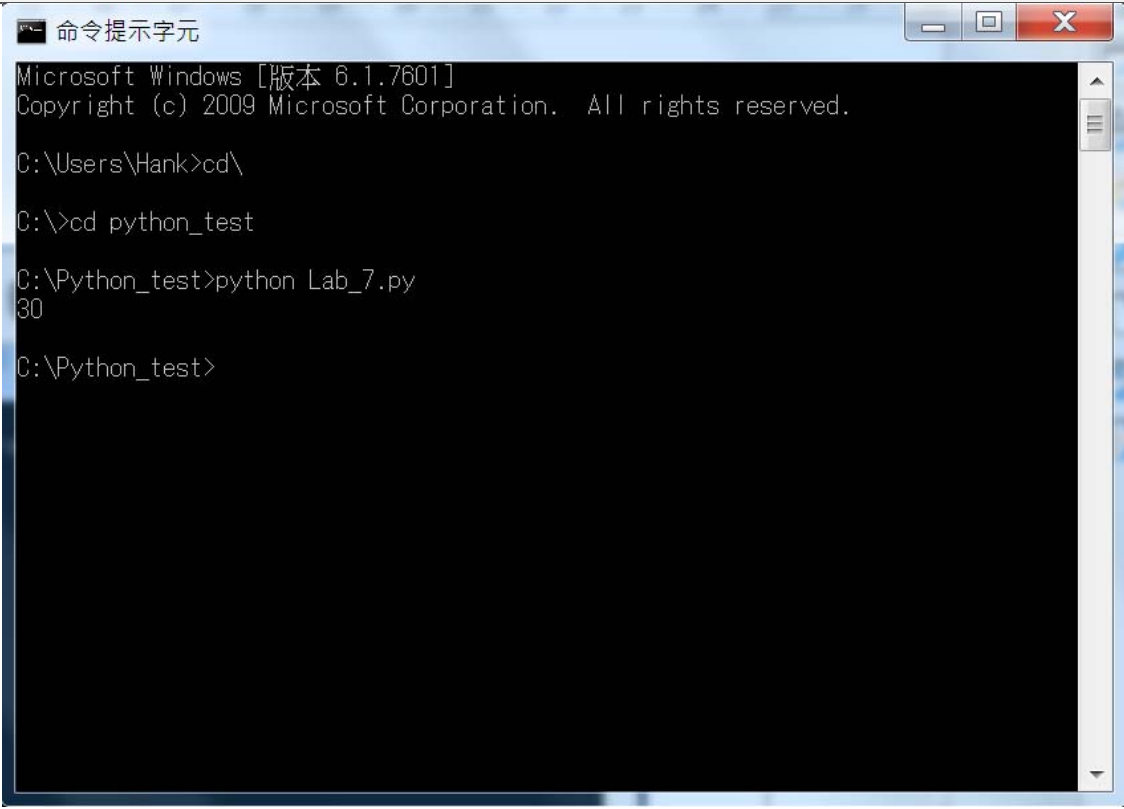
**Python:**  
Lab\_8.py,  
NImage.py

在北科電腦教室進行安裝，需使用以下指令：

```
pip install --trusted-host pypi.org --  
trusted-host files.pythonhosted.org  
matplotlib
```



- ✓ 確認在 NImage.py 中讀取 NImageDLL.dll 的路徑是否正確
- ✓ NImage.py 的包裝方式
- ✓ NDArray 的資料結構
- ✓ python string 轉 char\*
- ✓ ndarray.reshape()
- ✓ Reference:
- ✓ <https://wizardforcel.gitbooks.io/hyry-studio-scipy/content/21.html>
- ✓ <https://www.cnblogs.com/shine-lee/p/12293097.html>

練習目的	執行結果
<p>Using C++ In Python</p>	 <p>The screenshot shows a Windows Command Prompt window titled "命令提示字元". The text inside the window is as follows:</p> <pre>Microsoft Windows [版本 6.1.7601] Copyright (c) 2009 Microsoft Corporation. All rights reserved.  C:\Users\Hank&gt;cd\  C:\&gt;cd python_test  C:\Python_test&gt;python Lab_7.py 30  C:\Python_test&gt;</pre>

## Using C++ In Python for NImage

