

## Tutorial: Swig

- in today's tutorial we will explore how to produce a shared library in C/C++ and allow Python to call the shared library
  - we will pass a range of datatypes from Python to C/C++
  
- build the swig example `mymodule` from the lecture this week
  
- now extend `mymodule` to calculate the value of `sin(x*pi/2)`
  - allow Python to call this function
  
- extend the module further to implement a function to print out the contents of a string
  - allow Python to call this function

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- finally consider how you might implement a new module to add two 3d matrices together and return the result
  - try to make it as elegant as possible

## Conclusion

- you should have understood how shared libraries are created and how Python can access them
- you will probably appreciate the effort involved to make the solutions elegant (via the 3d matrix example)