

MODULE 5

FILE AND USER INPUT / OUTPUT

TRY / EXCEPT

Files

It is recommend to use the 'with' and 'as' keywords when using files.

In general you should stick to file extensions that make sense (.txt, .py, .html, .json, etc...) using other file extensions (.pdf, .docx, .exe) will generally make the file unreadable.

The `open(path, mode)` is used to interact with files

path is the full path of the file ending with its name

Mode can have 4 values they are:

'r' – Read, you will be able to read from the file, error if the file doesn't exist

'a' – Append, you will be able to add additional text to the file

'w' – Write, you will be able to write to the file NOTE: this will override any existing text

'x' – Create, this will create a new file you will be able to write to at the given path



Try / Except / Raise

The try keyword is very useful for controlling when and how exceptions (errors) occur.

Any code in a try block will be executed normally unless an exception occurs then execution flows to the except block.

The except block allows you to continue execution and decide what your code will do if there is an exception

The raise keyword will allow you to create an exception where none would occur otherwise.

Try it out

Create a program that:

- Accepts user input of three points or raises an exception for invalid input
- Calculates the area of the corresponding triangle or raises an exception for an invalid triangle
- Writes to a new file called “outfile.txt” the points and the corresponding area