**Intro to Functions**

1. **Functions are the key to modularity** 
   1. A program is a recipe or set of instructions for a computer
   2. Can be very complex (millions of line)
   3. ***Modularity is how programmers manage complexity*** 
      1. Programs can be subdivided into chunks
      2. **Takes one big problem and break into smaller manageable problems**
2. **Functions are the heart of programming** 
   1. Basic role of a function is to take some inputs, manipulate (process), those inputs, an then generate outputs
   2. Little functions can be combined to make bigger functions
   3. A program is a big function made up of lots of small ones
3. **Parts of a function** 
   1. **Signature/declaration** 
      1. Key word to let program know this is a function
      2. Ie “function” “def”
      3. The type of value that is returned eg string, int, float, etc
      4. One or more parameters or arguments to signify the inputs and sometimes the types of the input variables
   2. **Body** 
      1. Lines of code that manipulate the inputs
      2. A return statement that sends the outputs back to the calling context
4. **Call a function = run it**