

Turning ideas into (Pseudo) Code

Lab 8

HORT 530

- Problem: Print the word HI using a series of asterisks.
- Solution: 1. Pattern has three lines that are different from the others 2. Create loop to print each default line, 3. Add exceptions for line 1, 5 and 10
- PseudoCode:

```

Str = '*'
Loop_1 j in range 1 to 8
    Str += ' '
End Loop_1
Str += '*'
Loop_2 j in range 1 to 9
    Str += ' '
End Loop_2
Str += '*\n'
Loop_3: i in range 1 to 10
    if i==1 OR i==10
        print "*"      *      *****\n"
    else if i==5
        print "*****      *\n"
    else
        print Str
End Loop_3

```

Pseudocode

- Translate problem into series of steps.
- Define input and output for each step.
- Describe in detail the process for each step.

Project description to Pseudocode

- Convert your project description into a detailed set of steps.
- Do not worry about variables and arithmetic yet.
- Do think about loops and the most efficient way to use the cluster.

Pseudocode Example

- Problem: Calculate the average length of all protein sequences.
- PseudoCode (Simple):
 - Open protein sequence file
 - Loop over protein sequences
 - Read each sequence
 - Calculate length of current sequence
 - Add length to sum variable
 - Calculate the mean length by dividing sum/ no. of sequences