**SKELETAL NOTES** (follow this template to take notes as you are working through the lab):

**Learning Objectives**

What are the main learning objectives for this lab?

**Syntax:** Write down examples of all major syntax differences compared to python (brackets, parenthesis, semicolons, …)

**Variables:**

* Write an example of a variable declarationin C++
* Write an example of a variable value assignmentin C++
* Write an example of a variable being declared and assigned a value at the same time.
* Write all variable **types** covered in this lab

 **Decisions (conditional statements)**:
Write the syntax for a conditional statement in C++:

**While loop**:

Write down the general syntax for while loops in C++:

**Unix:**List all the **bash commands** learned today and their syntax:

**FOCUS QUESTIONS** (Make sure you can answer these questions when you are done with the lab):

* Try to list at least 2 or 3 situations in which you would use a conditional statement
* Try to list at least 2 or 3 situations in which you would use a while loop
* Think of an example in which you would include a conditional statement within a while loop
* Translate the following Python code into C++

if nucleotide == "A":

 newNucleotide = "T"

 elif nucleotide == "C":

 newNucleotide = "G"

 elif nucleotide == "G":

 newNucleotide = "C"

 elif nucleotide == "T":

 newNucleotide = "A"

 else:

 print("Error: not a valid value!")

* Translate the following Python code into C++

age = int(input('Please enter age: '))

while age < 0:

 print('Entered a negative number.')

 age = int(input('Please enter age: '))

print('You entered your age as:', age)