**CSI 160 Python Programming**

Activity 2: if-else

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| **Statement** | **True/False** |
| Indentation in Python is mandatory and defines the scope of control-flow constructs like **if** statements. |  |
| It is mandatory to have an **else** block? |  |
| An **else** block in an **if** statement executes only when all preceding **if** and **elif** conditions evaluate to **False**. |  |
| The **elif** keyword can only appear once in an **if-elif-else** chain. |  |
| The expression **None** evaluates as **False** in a conditional test. |  |
| In Python, **if x:** treats any nonzero number or non-empty container as **True**. |  |

What is the output of the following code?

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| item\_price = 200  quantity = 3  total\_purchase = item\_price \* quantity  is\_first\_time\_buyer = True  if ((total\_purchase > 50) and (is\_first\_time\_buyer)):  discount = total\_purchase \* 0.10  total\_purchase -= discount  print("Total purchase after discount:", total\_purchase)  else:  print("Total purchase:",total\_purchase) | Output: |
| item\_price = 10  quantity = 3  total\_purchase = item\_price \* quantity  is\_first\_time\_buyer = True  if ((total\_purchase > 50) and (is\_first\_time\_buyer)):  discount = total\_purchase \* 0.10  total\_purchase -= discount  print("Total purchase after discount:", total\_purchase)  else:  print("Total purchase:",total\_purchase) | Output: |
| if ((age >= 18) and (math\_pt >= 80 or english\_pt >= 75)):  eligibility = "Eligible for admission"  else:  eligibility = "Not eligible for admission"  print(eligibility) | age = 18  math\_pt = 85  english\_pt = 70  Output:  ----------------------  age = 17  math\_pt = 75  english\_pt = 70  Output: |

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| if num\_items >= 100:  price\_per\_item = 5  else:  if num\_items >= 50:  price\_per\_item = 6  else:  if num\_items >= 20:  price\_per\_item = 7  else:  price\_per\_item = 8  total\_cost = num\_items \* price\_per\_item  print("Total cost for",num\_items,"items:", total\_cost) | | num\_items = 5  Output:  num\_items = 25  Output:  num\_items = 50  Output:  num\_items = 500  Output: |
| Convert the nested if-else into a single if-else  if (num\_1 > 10):  if(num\_2 < 5):  num\_3 = 10 % 3  else:  num\_3 = 10 \* 3 |  | |