Metropolitan State University, Saint Paul, Minnesota

ICS 140 Computational Thinking with Programming

Lab 4

**If – elif – else Introduction**

This week we have started to explore selection statements in python. This allows you to build programs that execute different sections of code based on the criteria you define. The example below shows a grading program that uses a series of if – elif – else statements to determine a users grade.

Text

Description automatically generated

The if statement and each of the elif statements are followed by Boolean expressions to determine if the score met the threshold for each score level. The colon indicates that the if statement will be applied to the following indented lines. Each indented line following an if statement will be executed only if the Boolean expression in the if statement is true. For elif statements, the indented section will only execute if the previous if/elif statements were not true and the current Boolean expression is true. The indented statements after an else statement execute if none of the previous Boolean expressions were true.

Using similar expressions you can solve the software sales programming challenge.

**Software Sales**

A software company sells a package that retails for $99. Quantity discounts are given according to the following table:

|  |  |
| --- | --- |
| Quantity | Discount |
| 9 or less | 0% |
| 10 – 19 | 10% |
| 20 – 49 | 20% |
| 50 – 99 | 30% |
| 100 or more | 40% |

Write a program that asks the user to enter the number of packages purchased. The program should then display the amount of the discount and the total amount of the purchase after the discount.

When the program is run it should look something like this:

Text

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Copy the python code in the section below.

**Python Code**

A screenshot of a computer program

Description automatically generated

Take a screenshot of tests running the program for each discount amount and paste them below.

**Test Results**

A screenshot of a computer program

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