CS 112 Introduction to Programming **Fall 2022**

Lab 5: Multi-Dimensional Lists

Assignment is due by the end of the lab and must be submitted through Blackboard.

Submission instructions: you must submit **one (1) Python file**. Please name the file in the usual NetID_2XX_Lab5.py format.

Problem Description

Assume there is a dataset containing students' ID number, name, and grade. The dataset is a list which contains sub lists of each students' information. The teacher wants to identify the student on their list with maximum grade. Define a function named filter_score, such that, only the information of the student with a maximum grade is returned.

For instance, you need to check whether the grade of a student is maximum, if so, return the ID, name, and score of that student.

There are some assumptions in this task:

1. Each sub list contains student' information in the format: [student ID, student name, grade]

2. Every student has a different grade.

Function signature:

```
def filter_score (dataset):
    # your code goes here
    return [student_id, student_name, student_score]
```

Example Input/Output:

filter_score ([[20, "Clyde", 55], [23, "Thea", 62], [18, "Otto", 93]])

Return [18, 'Otto', 93]

filter_score ([[46, "Theo", 70], [33, "Freya", 92], [2, "Eloise", 50]])

Return [33, 'Freya', 92]

filter_score ([[1, "Pearl", 99], [3, "Joshua", 67], [5, "Jodi", 43]])

Return [1, 'Pearl', 99]

Hint: *Use the code provided in ungraded practice 3 from the Lab 5 Slides.*

Important Guidelines:

Use operators such as +,−,∗, /,∗∗ etc., as needed.
The following data types and their casting functions may be used: int, float, str.
You may not import other modules (like math).
Do not use programming elements not covered in class or the ZyBook readings at this time.
range() and len() is allowed. .append() is allowed. All other list methods not allowed.