# Create An Interactive Gradebook

## Ira Ruffin

In [1]:
```
grades = {'Dave': '90'} #created the grades dictionary with Dave and his corresponding

start = int(input(f'Type any number except 10 to start the program:')) #Control loop i

while start != 10: #while start does not equal ten, do the following

    print('Gradebook\n')
    print('1. Add Student\n2. Update Grade\n3. Display Grade\n4. Average Grade\n5. Fir
    option = int(input(' ')) #user input for which option they want to choose


    def add_student(grades): #if option == 1:
        print('Addition Wizard')
        student_input = str(input('Add Student:')) #lets the user add a student to the
        student = student_input.capitalize() #capitalizes the first letter of the stud
        student_grade = int(input('Add Grade:')) #lets the user input the student's gr
        grades.update({student: student_grade}) #updates the dictionary with the stude
        print('Student has been added.')
        print(grades)

    def update_grade(grades): #if option == 2:
        print('Update Wizard')
        student_update_input = str(input('Student Name:'))
        student_update_input_cap = student_update_input.capitalize() #capitalizes the

        #if the length of the dict is == 0:
        if len(grades) == 0:
            print('Add a student')

        #if the length of the grades != 0 OR the student input was found:
        if student_update_input_cap in grades:
            grade_update = int(input('Updated Grade:')) #input for the updated grade
            grades.update({student_update_input_cap:grade_update}) #updates the dict w
            print('Grade has been added.\n')
            print(f'{grades}')

    def display_grade(grades): #if option == 3:
        print('Display Wizard')
        print(f'{grades}') #print the students and their grades

        #if the length of the dict is == 0:
        if len(grades) == 0:
            print('Add a student first.')

    def avg_grade(grades): #if option == 4:
        print('Average Calculator Wizard')

        #if the length of the dict is zero
        if len(grades) == 0:
            print('Add a student first.')
```

```
        for value in grades.values():
            print(value)

        #if the length of the dict is not zero
        else:
            total = 0 #establishes the total value

            total = total + int(value) #turns all the values into integers. Replaces t
            average = total/len(grades.values()) #averages takes the total and divides

        print(f'Class Average: {average:.2f}') #prints the class average

    def find(grades): #if option == 5:
        print('Search Wizard')
        find_student_input = str(input('Student Name:'))
        find_student = find_student_input.capitalize() #capitalizes the student name i

        #if the student is found
        if find_student in grades:
            print({find_student: grades.get(find_student)}) #print the student's name

        #if the student is not found
        else:
            print('Student not found.')

    def quit(): #if option == 6:
        quit_program = str(input('Type Q to quit the program:')) #input to quit progra

        if quit_program == 'Q' or 'q':
            print('Gradebook Closed')



    if option == 1:
        add_student(grades)

    if option == 2:
        update_grade(grades)

    if option == 3:
        display_grade(grades)

    if option == 4:
        avg_grade(grades)

    if option == 5:
        find(grades)

    if option == 6:
        quit()
        break #stops the program under the quit function


#easter egg
while start == 10:
    print('YOU SHALL NOT PASS')
    break #also quits the program
```

```
Gradebook

1. Add Student
2. Update Grade
3. Display Grade
4. Average Grade
5. Find Student
6. Quit

Addition Wizard

Student has been added.
{'Dave': '90', 'Caleb': 66}
Gradebook

1. Add Student
2. Update Grade
3. Display Grade
4. Average Grade
5. Find Student
6. Quit

Update Wizard

Grade has been added.

{'Dave': '90', 'Caleb': 97}
Gradebook

1. Add Student
2. Update Grade
3. Display Grade
4. Average Grade
5. Find Student
6. Quit

Display Wizard
{'Dave': '90', 'Caleb': 97}
Gradebook

1. Add Student
2. Update Grade
3. Display Grade
4. Average Grade
5. Find Student
6. Quit

Average Calculator Wizard
90
97
Class Average: 48.50
Gradebook

1. Add Student
2. Update Grade
3. Display Grade
4. Average Grade
5. Find Student
6. Quit

Search Wizard
```

```
{'Dave': '90'}
Gradebook

1. Add Student
2. Update Grade
3. Display Grade
4. Average Grade
5. Find Student
6. Quit

Search Wizard

Student not found.
Gradebook

1. Add Student
2. Update Grade
3. Display Grade
4. Average Grade
5. Find Student
6. Quit

Gradebook Closed
```

In [ ]: