

ACTIVITY 04: LIST AND TUPLE

Create a record management program given a list of students records. Each record must be a tuple consist of the following:

- ☐ Student ID: This must be a six digit number
- ☐ Student Name: Consist of first name and last name (you may set the fullname as tuple)
- ☐ Student Class Standing: The student class standing grade
- ☐ Major Exam Grade: Exam grade of the student

The program must provide the following menu

- ☐ Open File
- ☐ Save File
- ☐ Save As File
- ☐ Show All Students Record
 - Order by last name
 - Order by grade (grade must be the 60% of Class Standing and 40% of Major Exam)
- ☐ Show Student Record
- ☐ Add Record
- ☐ Edit Record
- ☐ Delete Record

ADD RECORD / OPTION 8:

```
=====
~ STUDENT RECORD MANAGEMENT SYSTEM ~
  By Pauline Mapoy
=====
[1] - Open File
[2] - Save File
[3] - Save As File
[4] - Show All Students Record
[5] - Order by Last Name
[6] - Order by Grade
[7] - Show a Student Record
[8] - Add Record
[9] - Edit Record
[10] - Delete Record
[11] - Exit
=====

Enter your choice: 8

Enter Student ID (6-digit number): 456789
Enter First Name: George
Enter Last Name: Smith
Enter Class Standing Grade: 55.0
Enter Major Exam Grade: 42.0

STUDENT RECORD ADDED :)
```

ALL STUDENT RECORDS:

ID	Name	Class Standing	Major Exam	Final Grade
456789	George Smith	55.00	42.00	49.80

EDIT RECORD / OPTION 9:

```
=====
~ STUDENT RECORD MANAGEMENT SYSTEM ~
  By Pauline Mapoy
=====
[1] - Open File
[2] - Save File
[3] - Save As File
[4] - Show All Students Record
[5] - Order by Last Name
[6] - Order by Grade
[7] - Show a Student Record
[8] - Add Record
[9] - Edit Record
[10] - Delete Record
[11] - Exit
=====

Enter your choice: 9

Enter Student ID to Edit: 456789
Enter New First Name: George
Enter New Last Name: Stone
Enter New Class Standing Grade: 50.0
Enter New Major Exam Grade: 40.0

STUDENT RECORD UPDATED :)
```

ALL STUDENT RECORDS:

ID	Name	Class Standing	Major Exam	Final Grade
456789	George Stone	50.00	40.00	46.00

DELETE RECORD / OPTION 10:

```
=====
~ STUDENT RECORD MANAGEMENT SYSTEM ~
  By Pauline Mapoy
=====
```

```
| [1] - Open File |
| [2] - Save File |
| [3] - Save As File |
| [4] - Show All Students Record |
| [5] - Order by Last Name |
| [6] - Order by Grade |
| [7] - Show a Student Record |
| [8] - Add Record |
| [9] - Edit Record |
| [10] - Delete Record |
| [11] - Exit |
=====
```

Enter your choice: 10

Enter Student ID to Delete: 456789

STUDENT RECORD DELETED (if it existed)

```
=====
~ STUDENT RECORD MANAGEMENT SYSTEM ~
  By Pauline Mapoy
=====
```

```
| [1] - Open File |
| [2] - Save File |
| [3] - Save As File |
| [4] - Show All Students Record |
| [5] - Order by Last Name |
| [6] - Order by Grade |
| [7] - Show a Student Record |
| [8] - Add Record |
| [9] - Edit Record |
| [10] - Delete Record |
| [11] - Exit |
=====
```

Enter your choice: 4

ALL STUDENT RECORDS:
No Student Records Found :(

EXIT / OPTION 11:

```
=====
~ STUDENT RECORD MANAGEMENT SYSTEM ~
  By Pauline Mapoy
=====
[1] - Open File
[2] - Save File
[3] - Save As File
[4] - Show All Students Record
[5] - Order by Last Name
[6] - Order by Grade
[7] - Show a Student Record
[8] - Add Record
[9] - Edit Record
[10] - Delete Record
[11] - Exit
=====

Enter your choice: 11

THANK YOU FOR USING THE PROGRAM
Come Back Again! :)
```

OPEN FILE / OPTION 1:

```
=====
~ STUDENT RECORD MANAGEMENT SYSTEM ~
  By Pauline Mapoy
=====
[1] - Open File
[2] - Save File
[3] - Save As File
[4] - Show All Students Record
[5] - Order by Last Name
[6] - Order by Grade
[7] - Show a Student Record
[8] - Add Record
[9] - Edit Record
[10] - Delete Record
[11] - Exit
=====

Enter your choice: 1

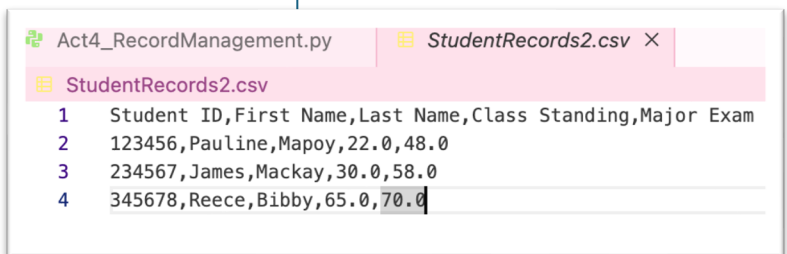
Enter filename to open: StudentRecords2.csv
Records loaded from StudentRecords2.csv successfully!

=====
~ STUDENT RECORD MANAGEMENT SYSTEM ~
  By Pauline Mapoy
=====
[1] - Open File
[2] - Save File
[3] - Save As File
[4] - Show All Students Record
[5] - Order by Last Name
[6] - Order by Grade
[7] - Show a Student Record
[8] - Add Record
[9] - Edit Record
[10] - Delete Record
[11] - Exit
=====

Enter your choice: 4

ALL STUDENT RECORDS:
```

ID	Name	Class Standing	Major Exam	Final Grade
123456	Pauline Mapoy	22.00	48.00	32.40
234567	James Mackay	30.00	58.00	41.20
345678	Reece Bibby	65.00	70.00	67.00



SHOW ALL STUDENTS RECORD / OPTION 4:

```
=====
~ STUDENT RECORD MANAGEMENT SYSTEM ~
  By Pauline Mapoy
=====
[1] - Open File
[2] - Save File
[3] - Save As File
[4] - Show All Students Record
[5] - Order by Last Name
[6] - Order by Grade
[7] - Show a Student Record
[8] - Add Record
[9] - Edit Record
[10] - Delete Record
[11] - Exit
=====

Enter your choice: 4

ALL STUDENT RECORDS:

ID      Name      Class Standing  Major Exam  Final Grade
=====
234567  James Mackay    30.00          58.00       41.20
345678  Reece Bibby     65.00          70.00       67.00
567891  Blake Richardson 90.00          77.00       84.80
678912  Bailee Madison  66.00          80.00       71.60
789123  Adriana Lima    45.00          70.00       55.00
891234  Erika Mojica    90.00          58.00       77.20
912345  Heaven Mapoy    48.00          40.00       44.80
```

ORDER BY LAST NAME / OPTION 5:

```
=====
~ STUDENT RECORD MANAGEMENT SYSTEM ~
  By Pauline Mapoy
=====
[1] - Open File
[2] - Save File
[3] - Save As File
[4] - Show All Students Record
[5] - Order by Last Name
[6] - Order by Grade
[7] - Show a Student Record
[8] - Add Record
[9] - Edit Record
[10] - Delete Record
[11] - Exit
=====

Enter your choice: 5

STUDENTS ORDERED BY LAST NAME:

ID      Name      Class Standing  Major Exam  Final Grade
=====
345678  Reece Bibby     65.00          70.00       67.00
789123  Adriana Lima    45.00          70.00       55.00
234567  James Mackay    30.00          58.00       41.20
678912  Bailee Madison  66.00          80.00       71.60
912345  Heaven Mapoy    48.00          40.00       44.80
891234  Erika Mojica    90.00          58.00       77.20
567891  Blake Richardson 90.00          77.00       84.80
```

ORDER BY GRADE / OPTION 6:

```
=====
~ STUDENT RECORD MANAGEMENT SYSTEM ~
  By Pauline Mapoy
=====
```

```
| [1] - Open File |
| [2] - Save File |
| [3] - Save As File |
| [4] - Show All Students Record |
| [5] - Order by Last Name |
| [6] - Order by Grade |
| [7] - Show a Student Record |
| [8] - Add Record |
| [9] - Edit Record |
| [10] - Delete Record |
| [11] - Exit |
=====
```

Enter your choice: 6

STUDENTS ORDERED BY FINAL GRADE:

ID	Name	Class Standing	Major Exam	Final Grade
567891	Blake Richardson	90.00	77.00	84.80
891234	Erika Mojica	90.00	58.00	77.20
678912	Bailee Madison	66.00	80.00	71.60
345678	Reece Bibby	65.00	70.00	67.00
789123	Adriana Lima	45.00	70.00	55.00
912345	Heaven Mapoy	48.00	40.00	44.80
234567	James Mackay	30.00	58.00	41.20

SHOW A STUDENT RECORD / OPTION 7:

```
=====
~ STUDENT RECORD MANAGEMENT SYSTEM ~
  By Pauline Mapoy
=====
```

```
| [1] - Open File |
| [2] - Save File |
| [3] - Save As File |
| [4] - Show All Students Record |
| [5] - Order by Last Name |
| [6] - Order by Grade |
| [7] - Show a Student Record |
| [8] - Add Record |
| [9] - Edit Record |
| [10] - Delete Record |
| [11] - Exit |
=====
```

Enter your choice: 7

Enter Student ID: 345678

STUDENT RECORD

ID	Name	Class Standing	Major Exam	Final Grade
345678	Reece Bibby	65.00	70.00	67.00

SAVE FILE / OPTION 2:

```
=====
~ STUDENT RECORD MANAGEMENT SYSTEM ~
  By Pauline Mapoy
=====
[1] - Open File
[2] - Save File
[3] - Save As File
[4] - Show All Students Record
[5] - Order by Last Name
[6] - Order by Grade
[7] - Show a Student Record
[8] - Add Record
[9] - Edit Record
[10] - Delete Record
[11] - Exit
=====

Enter your choice: 2

Records saved to StudentRecords1.csv successfully!
```

Act4_RecordManagement.py

StudentRecords1.csv X

StudentRecords1.csv

1	Student ID,First Name,Last Name,Class Standing,Major Exam
2	234567,James,Mackay,30.0,58.0
3	345678,Reece,Bibby,65.0,70.0
4	567891,Blake,Richardson,90.0,77.0
5	678912,Bailee,Madison,66.0,80.0
6	789123,Adriana,Lima,45.0,70.0
7	891234,Erika,Mojica,90.0,58.0
8	912345,Heaven,Mapoy,48.0,40.0
9	

SAVE AS FILE / OPTION 3:

```
=====
~ STUDENT RECORD MANAGEMENT SYSTEM ~
  By Pauline Mapoy
=====
[1] - Open File
[2] - Save File
[3] - Save As File
[4] - Show All Students Record
[5] - Order by Last Name
[6] - Order by Grade
[7] - Show a Student Record
[8] - Add Record
[9] - Edit Record
[10] - Delete Record
[11] - Exit
=====

Enter your choice: 3

Enter filename to save as: StudentRecords3.csv
Records saved to StudentRecords3.csv successfully!
```

Act4_RecordManagement.py

StudentRecords3.csv X

StudentRecords3.csv

1	Student ID,First Name,Last Name,Class Standing,Major Exam
2	234567,James,Mackay,30.0,58.0
3	345678,Reece,Bibby,65.0,70.0
4	567891,Blake,Richardson,90.0,77.0
5	678912,Bailee,Madison,66.0,80.0
6	789123,Adriana,Lima,45.0,70.0
7	891234,Erika,Mojica,90.0,58.0
8	912345,Heaven,Mapoy,48.0,40.0
9	