Group 3
Source Code: https://github.com/latanya-ctrl11011/Grade-Book-Database.git
README: https://github.com/latanya-ctrl11011/Grade-Book-Database/blob/main/README.md
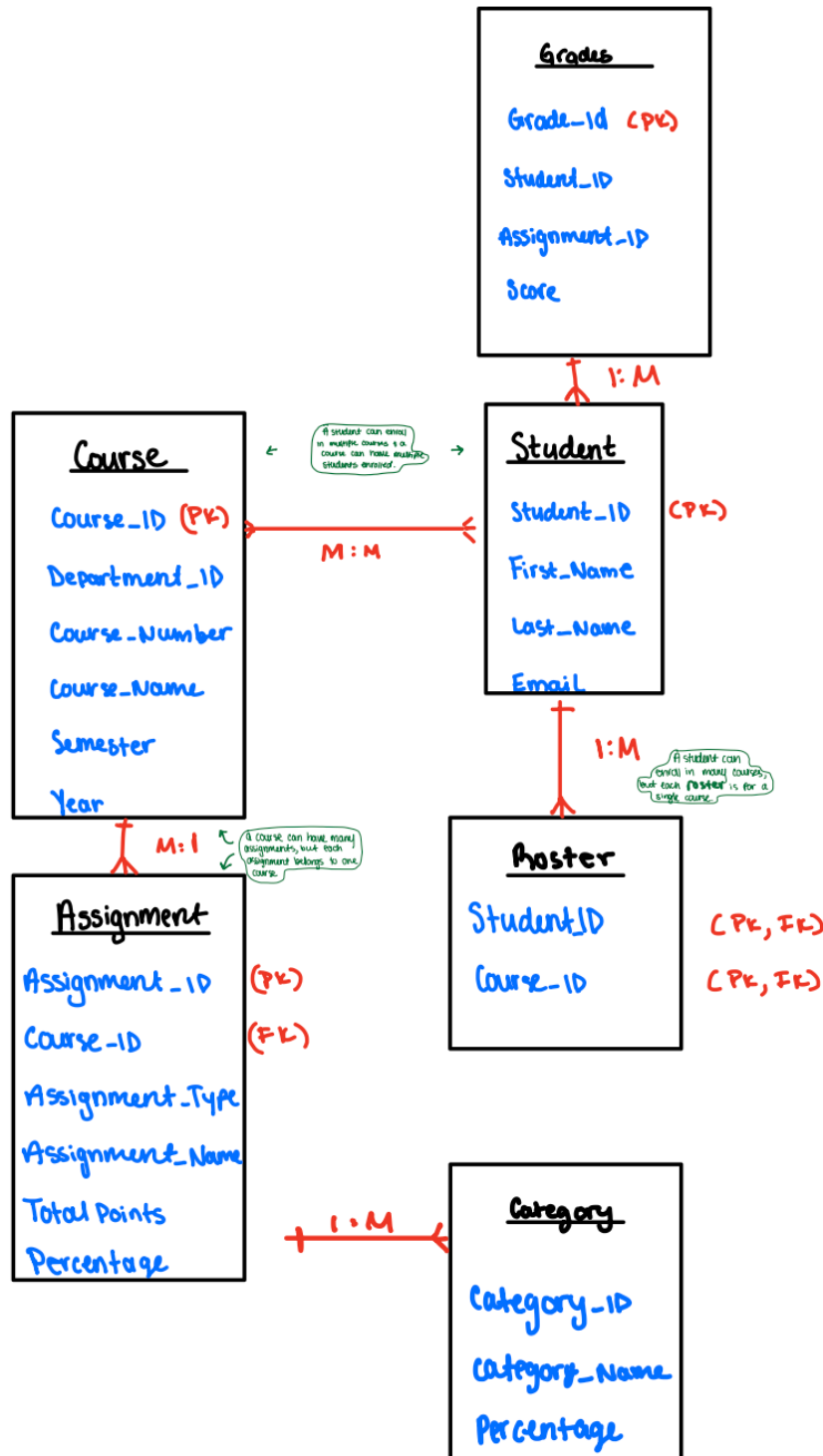
ERD

Tables with Contents:

```
SELECT * FROM Student;
```

student_id	f_name	l_name
1234	Diana	Ekechukwu
2345	Latanya	KhissyBeyniouah
3456	Ivy	Lee
4567	Khendra	Phillips
5678	Imaan	Adam

```
SELECT * FROM Course;
```

course_id	department	course_number	course_name	semester	year
1	Computer Science	100	Intro to Computer Science	Fall	2023
2	Mathematics	201	Calculus I	Spring	2024
3	Biology	101	General Biology Lec/Lab	Fall	2023
4	Computer Science	120	Explorations in Computer Science	Fall	2023
5	English	103	Persuasive Writing & Research	Spring	2024

```
SELECT * FROM Category;
```

category_id	category_name	weight
1	Participation	10
2	Homework	20
3	Test	50
4	Project	20

```
SELECT * FROM Assignment;
```

assignment_id	category_id	course_id
1	1	1
2	2	1
3	3	1
4	4	1
5	1	2
6	2	2
7	3	2
8	4	2
9	1	3
10	2	3
11	3	3
12	4	3
13	1	3
14	2	3
15	3	3
16	4	3
17	1	4
18	2	4
19	3	4
20	4	4

```
SELECT * FROM Grades;
```

course_id	student_id	assignment_id	score
1	1234	1	72
1	1234	2	48
1	1234	3	23
1	1234	4	70
2	1234	5	85
2	1234	6	67
2	1234	7	78
2	1234	8	28
2	2345	5	98
2	2345	6	39
2	2345	7	27
2	2345	8	90
3	2345	9	100
3	2345	10	92
3	2345	11	39
3	2345	12	50
3	3456	9	74
3	3456	10	99
3	3456	11	29
3	3456	12	30
4	3456	13	40
4	3456	14	40
4	3456	15	28
4	3456	16	30
2	4567	5	100
2	4567	6	69
2	4567	7	66

2	4567	8	67
5	4567	17	39
5	4567	18	73
5	4567	19	69
5	4567	20	100
1	5678	1	99
1	5678	2	43
1	5678	3	56
1	5678	4	68
5	5678	9	76
5	5678	10	62
5	5678	11	100
5	5678	12	100

```
SELECT * FROM Roster;
```

course_id	student_id
1	1234
1	5678
2	1234
2	2345
2	4567
3	2345
3	3456
4	3456
5	4567
5	5678

```
SELECT * FROM Assignment;
```

assignment_id	category_id	course_id
1	1	1
2	2	1
3	3	1
4	4	1
5	1	2
6	2	2
7	3	2
8	4	2
9	1	3
10	2	3
11	3	3
12	4	3
13	1	3
14	2	3
15	3	3
16	4	3
17	1	4
18	2	4
19	3	4
20	4	4
21	3	2

Test Cases:

```python
223    print("\nTASK 4")
224    average_score = computations.avg_score(7)
225    print("The average score for this assignment is ", average_score)
226
227    highest_score = computations.high_score(7)
228    print("The highest score for this assignment is ", highest_score)
229
230    lowest_score = computations.low_score(7)
231    print("The lowest score for this assignment is ", lowest_score)
232    print("\nTASK 5")
233    stu_in_bio = computations.students_in_bio(3)
234    print("Students in Bio 101 are ", stu_in_bio)
235    print("\nTASK 6")
236    stu_in_cs = computations.students_in_course(1)
237    print("The grades on each assignment for all students in CS 100 are ", stu_in_cs)
238
239    print("\nTASK 7")
240    print(computations.add_assignment(21, 2, 1))
241
242    print("\nTASK 8")
243    print(computations.percent_change(1, 1, 20))
244    print(computations.percent_change(1, 2, 30))
245    print(computations.percent_change(1, 3, 10))
246    print(computations.percent_change(1, 4, 40))
247
248    print("\nTASK 9")
249    print(computations.score_update(3, 2))
250
251    print("\nTASK 10")
252    print(computations.score_updateQ(2, '%Q%'))
253
254    print("\nTASK 11")
255    print(computations.student_grade_1234(1234, 1))
256
257    print("\nTASK 12")
258    print(computations.student_grade_dropped(1234, 1, 2))
259
260    # Close the connection
261    conn.close()
262
```

Result:

```
TASK 4
The average score for this assignment is  57.0
The highest score for this assignment is  78
The lowest score for this assignment is  27

TASK 5
Students in Bio 101 are  Latanya KhissyBeyniouah, Ivy Queen,

TASK 6
The grades on each assignment for all students in CS 100 are  [('Diana', 'Ekechukwu', 1234, 1, 72), ('Diana', 'Ekechukwu', 1234, 2, 48), ('Diana', 'Eke
chukwu', 1234, 3, 25), ('Diana', 'Ekechukwu', 1234, 4, 70), ('Imaan', 'Adam', 5678, 1, 99), ('Imaan', 'Adam', 5678, 2, 43), ('Imaan', 'Adam', 5678, 3,
58), ('Imaan', 'Adam', 5678, 4, 68)]

TASK 7

TASK 8
weights for course 1 were changed to 20, 30, 10, and 40
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TASK 9
score for assigment 3 went up 2 points

TASK 10
scores for Ivy Queen went up 2 points

TASK 11
('final grade for student 1234 in course 1 is', 47.0)

TASK 12
final after lowest dropped for student 5678 is 72
ivaneishalee@Ivaneishas-MacBook-Pro-2 Grade-Book-Database % python -u "/Users/ivaneishalee/Database Repo/Grade-Book-Database/main.py"
Tables created successfully.
Values added successfully.

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The average score for this assignment is  57.0
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final after lowest dropped for student 5678 is 72
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