Lab Report

Only for course Teacher						
		Needs Improvement	Developing	Sufficient	Above Average	Total Mark
Allocate mark & Percentage		25%	50%	75%	100%	25
Problem Understanding & Analysis	7					
Implementation	8					
Report Writing	10					
					Total obtained mark	
Comments						

Semester: Spring 2024

Student Name: Istewak Hassan Tewak

Student ID: 0242220005341228

Batch: 39 **Section: C2**

Course Code: SE224 **Course Name: Database System Lab**

Course Teacher Name: Mr. Kazi Rifat Ahmed

Designation: Lecturer

Submission Date: 11 /05/2024

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0005 seconds.)

```
-- Create the coachingcenter database CREATE DATABASE IF NOT EXISTS coachingcenter;
```

[Edit inline] [Edit] [Create PHP code]

Note: #1007 Can't create database 'coachingcenter'; database exists

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0004 seconds.)

```
USE coachingcenter;
```

[Edit inline] [Edit] [Create PHP code]

Error: #1046 No database selected

MySQL returned an empty result set (i.e. zero rows). (Query took 0.3266 seconds.)

```
-- Create the Class table CREATE TABLE IF NOT EXISTS Class ( class_id INT AUTO_INCREMENT PRIMARY KEY, class_name VARCHAR(255), class_description TEXT );
```

[Edit inline] [Edit] [Create PHP code]

MySQL returned an empty result set (i.e. zero rows). (Query took 0.2158 seconds.)

```
-- Create the CoachingTutor table CREATE TABLE IF NOT EXISTS CoachingTutor ( tutor_id INT AUTO_INCREMENT PRIMARY KEY, tutor_name VARCHAR(255),
subject_taught VARCHAR(255), contact_info VARCHAR(255) );
```

MySQL returned an empty result set (i.e. zero rows). (Query took 0.2332 seconds.)

```
-- Create the Student table CREATE TABLE IF NOT EXISTS Student ( student_id INT AUTO_INCREMENT PRIMARY KEY, student_name VARCHAR(255), contact_info
VARCHAR(255), address TEXT );
```

[Edit inline] [Edit] [Create PHP code]

MySQL returned an empty result set (i.e. zero rows). (Query took 0.2012 seconds.)

```
-- Create the Assignment table CREATE TABLE IF NOT EXISTS Assignment ( assignment_id INT AUTO_INCREMENT PRIMARY KEY, class_id INT, tutor_id INT, title
VARCHAR(255), description TEXT, deadline DATE, FOREIGN KEY (class_id) REFERENCES Class(class_id), FOREIGN KEY (tutor_id) REFERENCES CoachingTutor(tutor_id)
);
```

[Edit inline] [Edit] [Create PHP code]

MySQL returned an empty result set (i.e. zero rows). (Query took 0.2452 seconds.)

```
-- Create the Attendance table CREATE TABLE IF NOT EXISTS Attendance ( attendance_id INT AUTO_INCREMENT PRIMARY KEY, class_id INT, student_id INT, date
DATE, status ENUM('Present', 'Absent'), FOREIGN KEY (class_id) REFERENCES Class(class_id), FOREIGN KEY (student_id) REFERENCES Student(student_id) );
```

[Edit inline] [Edit] [Create PHP code]

MySQL returned an empty result set (i.e. zero rows). (Query took 0.2468 seconds.)

```
-- Create the ClassBatch table CREATE TABLE IF NOT EXISTS ClassBatch ( batch_id INT AUTO_INCREMENT PRIMARY KEY, class_id INT, batch_name VARCHAR(255),
start_date DATE, end_date DATE, FOREIGN KEY (class_id) REFERENCES Class(class_id) );
```

[Edit inline] [Edit] [Create PHP code]

MySQL returned an empty result set (i.e. zero rows). (Query took 0.2189 seconds.)

```
-- Create the ClassEnrollment table CREATE TABLE IF NOT EXISTS ClassEnrollment ( enrollment_id INT AUTO_INCREMENT PRIMARY KEY, batch_id INT, student_id INT, enrollment_date DATE, FOREIGN KEY (batch_id) REFERENCES ClassBatch(batch_id), FOREIGN KEY (student_id) REFERENCES Student(student_id) );
```

[Edit inline] [Edit] [Create PHP code]

MySQL returned an empty result set (i.e. zero rows). (Query took 0.1444 seconds.)

```
-- Create the UES (User-Entity-State) table CREATE TABLE IF NOT EXISTS UES ( user_id INT AUTO_INCREMENT PRIMARY KEY, username VARCHAR(255), password VARCHAR(255), role ENUM('Admin', 'Student', 'Tutor') );
```

[Edit inline] [Edit] [Create PHP code]

MySQL returned an empty result set (i.e. zero rows). (Query took 0.2890 seconds.)

```
-- Create the Grade table CREATE TABLE IF NOT EXISTS Grade ( grade_id INT AUTO_INCREMENT PRIMARY KEY, assignment_id INT, student_id INT, grade_value DECIMAL(5,2), FOREIGN KEY (assignment_id) REFERENCES Assignment(assignment_id), FOREIGN KEY (student_id) REFERENCES Student(student_id) );
```

[Edit inline] [Edit] [Create PHP code]

MySQL returned an empty result set (i.e. zero rows). (Query took 0.3158 seconds.)

```
-- Create the Transaction table CREATE TABLE IF NOT EXISTS Transaction ( transaction_id INT AUTO_INCREMENT PRIMARY KEY, student_id INT, amount DECIMAL(10,2), transaction_date DATE, transaction_type ENUM('Payment', 'Fee'), FOREIGN KEY (student_id) REFERENCES Student(student_id) );
```

[Edit inline] [Edit] [Create PHP code]

50 rows inserted. (Query took 0.0724 seconds.)

```
INSERT INTO class (class_id, class_name, class_description) VALUES (1, 'Class 1', 'Description for Class 1'), (2, 'Class 2', 'Description for Class 2'), (3, 'Class 3', 'Description for Class 3'), (4, 'Class 4', 'Description for Class 4'), (5, 'Class 5', 'Description for Class 5'), (6, 'Class 6', 'Description for Class 6'), (7, 'Class 7', 'Description for Class 7'), (8, 'Class 8', 'Description for Class 8'), (9, 'Class 9', 'Description for Class 9'), (10, 'Class 10', 'Description for Class 10'), (11, 'Class 11', 'Description for Class 11'), (12, 'Class 12', 'Description for Class 12'), (13, 'Class 13', 'Description for Class 13'), (14, 'Class 14', 'Description for Class 14'), (15, 'Class 15', 'Description for Class 15'), (16, 'Class 16', 'Description for Class 16'), (17, 'Class 17', 'Description for Class 17'), (18, 'Class 18', 'Description for Class 18'), (19, 'Class 19', 'Description for Class 19'), (20, 'Class 20',
```

[Edit]

50 rows inserted. (Query took 0.0005 seconds.)

```
-- Assuming the transaction table already exists -- Inserting data for student_id from 1 to 50 INSERT INTO transaction (transaction_id, student_id, amount, transaction_date, transaction_type) VALUES (1, 1, 100.50, '2024-05-11', 'Purchase'), (2, 2, 75.25, '2024-05-10', 'Refund'), (3, 3, 150.00, '2024-05-09', 'Purchase'), (4, 4, 200.75, '2024-05-08', 'Purchase'), (5, 5, 50.50, '2024-05-07', 'Refund'), (6, 6, 80.20, '2024-05-06', 'Purchase'), (7, 7, 95.75, '2024-05-05', 'Purchase'), (8, 8, 120.30, '2024-05-04', 'Refund'), (9, 9, 180.90, '2024-05-03', 'Purchase'), (10, 10, 70.40, '2024-05-02', 'Purchase'), (11, 11, 110.60, '2024-05-01', 'Refund'), (12, 12, 130.20, '2024-04-30', 'Purchase'), (13, 13, 90.10, '2024-04-29', 'Purchase'), (14, 14, 85.50, '2024-04-28', 'Refund'), (15, 15, 40.75, '2024-04-27', 'Purchase'), (16, 16, 55.80, '2024-04-26', 'Purchase'), (17, 17, 70.90, '2024-04-25',
```

[Edit]

50 rows inserted. (Query took 0.0573 seconds.)

```
INSERT INTO ues (user_id, username, password, role) VALUES (1, 'user1', 'password1', 'role1'), (2, 'user2', 'password2', 'role2'), (3, 'user3', 'password3', 'role3'), (4, 'user4', 'password4', 'role4'), (5, 'user5', 'password5', 'role5'), (6, 'user6', 'password6', 'role6'), (7, 'user7', 'password7', 'role7'), (8, 'user8', 'password8', 'role8'), (9, 'user9', 'password9', 'role9'), (10, 'user10', 'password10', 'role10'), (11, 'user11', 'password11', 'role11'), (12, 'user12', 'password12', 'role12'), (13, 'user13', 'password13', 'role13'), (14, 'user14', 'password14', 'role14'), (15, 'user15', 'password15', 'role15'), (16, 'user16', 'password16', 'role16'), (17, 'user17', 'password17', 'role17'), (18, 'user18', 'password18', 'role18'), (19, 'user19', 'password19', 'role19'), (20, 'user20', 'password20', 'role20'), (21, 'user21', 'password21', 'role21'), (22, 'user22', 'password22[...]
```

[Edit]

50 rows inserted. (Query took 0.0939 seconds.)

```
INSERT INTO coachingtutor (tutor_id, tutor_name, subject_taught, contact_info) VALUES (1, 'Tutor 1', 'Mathematics', '123-456-7890'), (2, 'Tutor 2', 'Physics', '234-567-8901'), (3, 'Tutor 3', 'Chemistry', '345-678-9012'), (4, 'Tutor 4', 'Biology', '456-789-0123'), (5, 'Tutor 5', 'English', '567-890-1234'), (6, 'Tutor 6', 'History', '678-901-2345'), (7, 'Tutor 7', 'Geography', '789-012-3456'), (8, 'Tutor 8', 'Computer Science', '890-123-4567'), (9, 'Tutor 9', 'Economics', '901-234-5678'), (10, 'Tutor 10', 'Psychology', '012-345-6789'), (11, 'Tutor 11', 'Sociology', '111-222-3333'), (12, 'Tutor 12', 'Political Science', '222-333-4444'), (13, 'Tutor 13', 'Anthropology', '333-444-5555'), (14, 'Tutor 14', 'Philosophy', '444-555-6666'), (15, 'Tutor 15', 'Art', '555-666-7777'), (16, 'Tutor 16', 'Music', '666-777-8888'), (17, 'Tutor 17', 'Drama', '777-888-9999'), (18, 'Tutor 18', 'Physical Education', '888-
```

[Edit]

50 rows inserted. (Query took 0.0586 seconds.)

```
INSERT INTO student (student_id, student_name, contact_info, address) VALUES (1, 'John Doe', 'john.doe@example.com', '123 Main Street, CityA'), (2, 'Jane Smith', 'jane.smith@example.com', '456 Elm Street, CityB'), (3, 'Michael Johnson', 'michael.johnson@example.com', '789 Oak Street, CityC'), (4, 'Emily Brown', 'emily.brown@example.com', '321 Pine Street, CityD'), (5, 'Christopher Lee', 'christopher.lee@example.com', '654 Maple Street, CityE'), (6, 'Amanda Wilson', 'amanda.wilson@example.com', '987 Birch Street, CityF'), (7, 'David Martinez', 'david.martinez@example.com', '159 Cedar Street, CityG'), (8, 'Jessica Taylor', 'jessica.taylor@example.com', '753 Walnut Street, CityH'), (9, 'Daniel Anderson', 'daniel.anderson@example.com', '246 Spruce Street, CityI'), (10, 'Sarah Thomas', 'sarah.thomas@example.com', '864 Cherry Street, CityJ'), (11, 'Matthew Hernandez', 'matthew.hernandez@example.com', '357 Pine
```

[Edit]

50 rows inserted. (Query took 0.0005 seconds.)

```
INSERT INTO assignment (assignment_id, class_id, tutor_id, title, description, deadline) VALUES (1, 1, 1, 'Assignment 1', 'Description for Assignment 1', '2024-05-15'), (2, 2, 2, 'Assignment 2', 'Description for Assignment 2', '2024-05-16'), (3, 3, 3, 'Assignment 3', 'Description for Assignment 3', '2024-05-17'), (4, 4, 4, 'Assignment 4', 'Description for Assignment 4', '2024-05-18'), (5, 5, 5, 'Assignment 5', 'Description for Assignment 5', '2024-05-19'), (6, 6, 6, 'Assignment 6', 'Description for Assignment 6', '2024-05-20'), (7, 7, 7, 'Assignment 7', 'Description for Assignment 7', '2024-05-21'), (8, 8, 8, 'Assignment 8', 'Description for Assignment 8', '2024-05-22'), (9, 9, 9, 'Assignment 9', 'Description for Assignment 9', '2024-05-23'), (10, 10, 10, 'Assignment 10', 'Description for Assignment 10', '2024-05-24'), (11, 11, 11, 'Assignment 11', 'Description for Assignment 11', '2024-05-25'), (12, 12, 12,
```

[Edit]

50 rows inserted. (Query took 0.0007 seconds.)

```
INSERT INTO attendance (attendance_id, class_id, student_id, date, status) VALUES (1, 1, 1, '2024-05-01', 'Present'), (2, 2, 2, '2024-05-01', 'Absent'), (3, 3, 3, '2024-05-01', 'Present'), (4, 4, 4, '2024-05-01', 'Present'), (5, 5, 5, '2024-05-01', 'Absent'), (6, 6, 6, '2024-05-01', 'Present'), (7, 7, 7, '2024-05-01', 'Present'), (8, 8, 8, '2024-05-01', 'Absent'), (9, 9, 9, '2024-05-01', 'Present'), (10, 10, 10, '2024-05-01', 'Present'), (11, 11, 11, '2024-05-02', 'Present'), (12, 12, 12, '2024-05-02', 'Absent'), (13, 13, 13, '2024-05-02', 'Present'), (14, 14, 14, '2024-05-02', 'Absent'), (15, 15, 15, '2024-05-02', 'Present'), (16, 16, 16, '2024-05-02', 'Present'), (17, 17, 17, '2024-05-02', 'Absent'), (18, 18, 18, '2024-05-02', 'Present'), (19, 19, 19, '2024-05-02', 'Absent'), (20, 20, 20, '2024-05-02', 'Present'), (21, 21, 21, '2024-05-03', 'Present'), (22, 22, 22, '2024-05-03', 'Absent'), (23, 23, 23, '2024-05-03',
```

[Edit]

50 rows inserted. (Query took 0.0006 seconds.)

```
-- Assuming the classbatch table already exists -- Add 50 non-empty rows of data INSERT INTO classbatch (batch_id, class_id, batch_name, start_date, end_date) VALUES (1, 1, 'Batch 1', '2024-01-01', '2024-02-01'), (2, 2, 'Batch 2', '2024-01-02', '2024-02-02'), (3, 3, 'Batch 3', '2024-01-03', '2024-02-03'), (4, 4, 'Batch 4', '2024-01-04', '2024-02-04'), (5, 5, 'Batch 5', '2024-01-05', '2024-02-05'), (6, 6, 'Batch 6', '2024-01-06', '2024-02-06'), (7, 7, 'Batch 7', '2024-01-07', '2024-02-07'), (8, 8, 'Batch 8', '2024-01-08', '2024-02-08'), (9, 9, 'Batch 9', '2024-01-09', '2024-02-09'), (10, 10, 'Batch 10', '2024-01-10', '2024-02-10'), (11, 11, 'Batch 11', '2024-01-11', '2024-02-11'), (12, 12, 'Batch 12', '2024-01-12', '2024-02-12'), (13, 13, 'Batch 13', '2024-01-13', '2024-02-13'), (14, 14, 'Batch 14', '2024-01-14', '2024-02-14'), (15, 15, 'Batch 15', '2024-01-15', '2024-02-15'), (16, 16, 'Batch 16', '202[...]
```

[Edit]

50 rows inserted. (Query took 0.0009 seconds.)

```
-- Assuming the classenrollment table already exists -- Add 50 nonempty rows of data INSERT INTO classenrollment (enrollment_id, batch_id, student_id, enrollment_date) VALUES (1, 1, 1, '2024-01-01'), (2, 2, 2, '2024-01-02'), (3, 3, 3, '2024-01-03'), (4, 4, 4, '2024-01-04'), (5, 5, 5, '2024-01-05'), (6, 6, 6, '2024-01-06'), (7, 7, 7, '2024-01-07'), (8, 8, 8, '2024-01-08'), (9, 9, 9, '2024-01-09'), (10, 10, 10, '2024-01-10'), (11, 11, 11, '2024-01-11'), (12, 12, 12, '2024-01-12'), (13, 13, 13, '2024-01-13'), (14, 14, 14, '2024-01-14'), (15, 15, 15, '2024-01-15'), (16, 16, 16, '2024-01-16'), (17, 17, 17, '2024-01-17'), (18, 18, 18, '2024-01-18'), (19, 19, 19, '2024-01-19'), (20, 20, 20, '2024-01-20'), (21, 21, 21, '2024-01-21'), (22, 22, 22, '2024-01-22'), (23, 23, 23, '2024-01-23'), (24, 24, 24, '2024-01-24'), (25, 25, 25, '2024-01-25'), (26, 26, 26, '20[...]
```

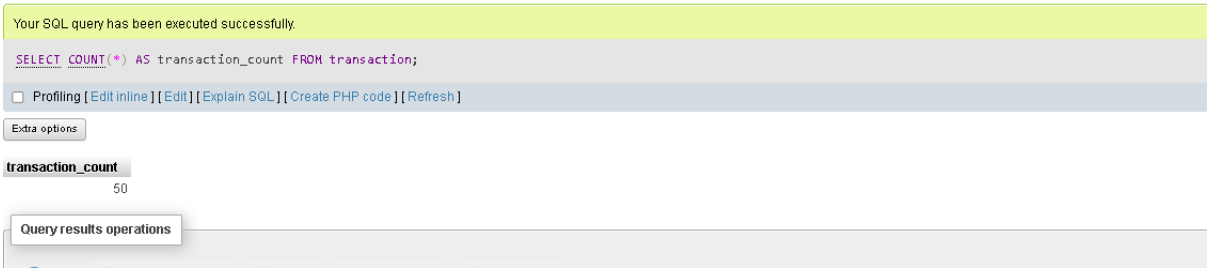
[Edit]

50 rows inserted. (Query took 0.0006 seconds.)

```
-- Assuming the grade table already exists -- Add 50 nonempty rows of data INSERT INTO grade (grade_id, assignment_id, student_id, grade_value) VALUES (1, 1, 1, 85), (2, 2, 2, 90), (3, 3, 3, 75), (4, 4, 4, 88), (5, 5, 5, 92), (6, 6, 6, 80), (7, 7, 7, 87), (8, 8, 8, 78), (9, 9, 9, 85), (10, 10, 10, 91), (11, 11, 11, 83), (12, 12, 12, 89), (13, 13, 13, 86), (14, 14, 14, 79), (15, 15, 15, 94), (16, 16, 16, 82), (17, 17, 17, 88), (18, 18, 18, 75), (19, 19, 19, 90), (20, 20, 20, 84), (21, 21, 21, 91), (22, 22, 22, 77), (23, 23, 23, 85), (24, 24, 24, 92), (25, 25, 25, 81), (26, 26, 26, 87), (27, 27, 27, 76), (28, 28, 28, 88), (29, 29, 29, 93), (30, 30, 30, 80), (31, 31, 31, 85), (32, 32, 32, 91), (33, 33, 33, 79), (34, 34, 34, 89), (35, 35, 35, 84), (36, 36, 36, 90), (37, 37, 37, 77), (38, 38, 38, 9[...]
```

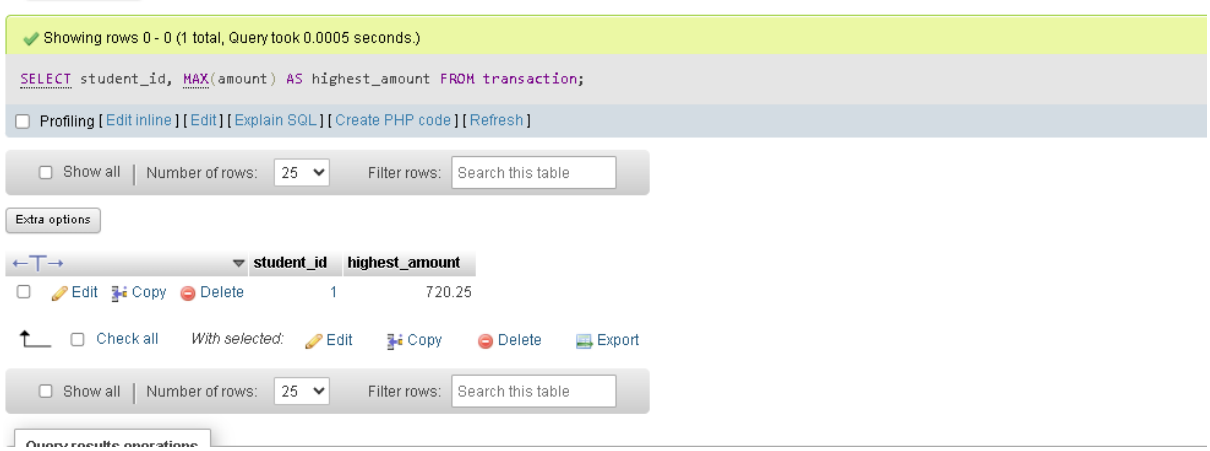
[Edit]

1. **How many transactions are there in the transaction table?**



2. **What is the average amount of transactions in the transaction table?**

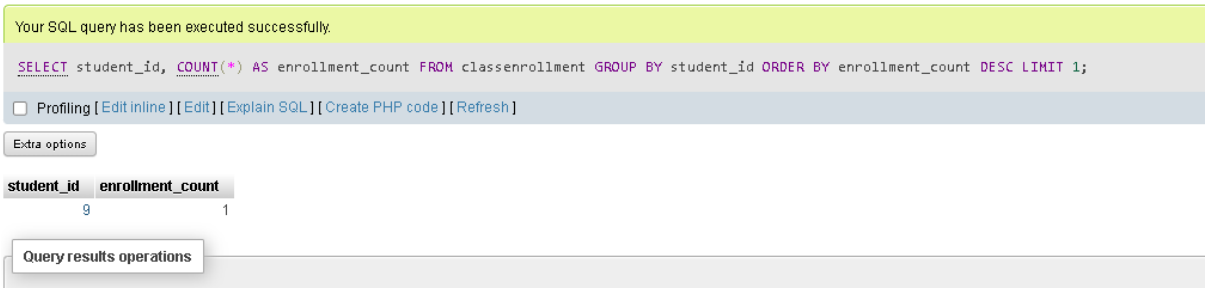
3. **Which student has the highest transaction amount in the transaction table?**



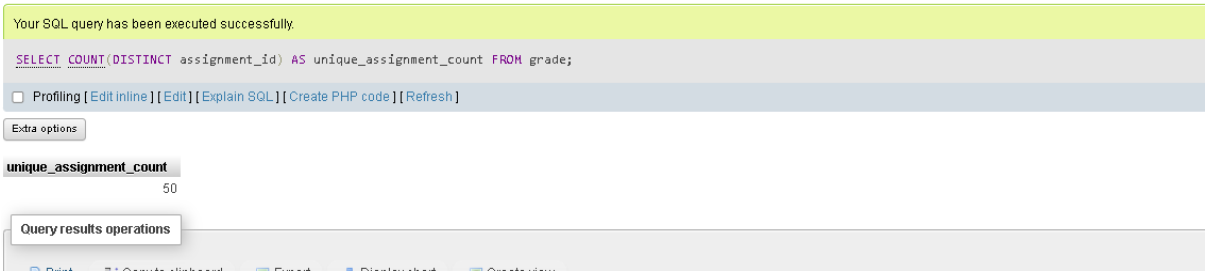
4. **How many batches are there in the classbatch table?**

5. **What is the earliest start date of batches in the classbatch table?**

6. **Which student has enrolled in the maximum number of batches in the classenrollment table?**



7. **How many unique assignments are there in the grade table?**



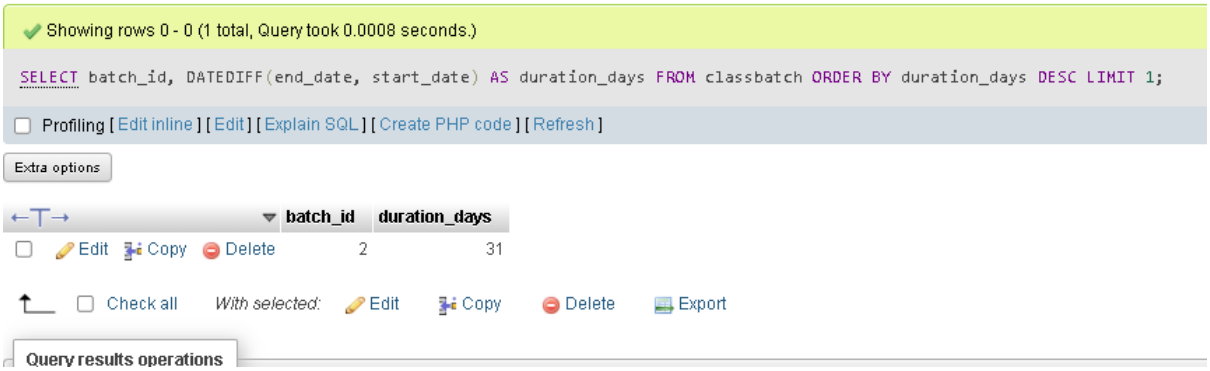
8. **What is the average grade value across all assignments in the grade table?**

9. Which student has the highest average grade value in the grade table?

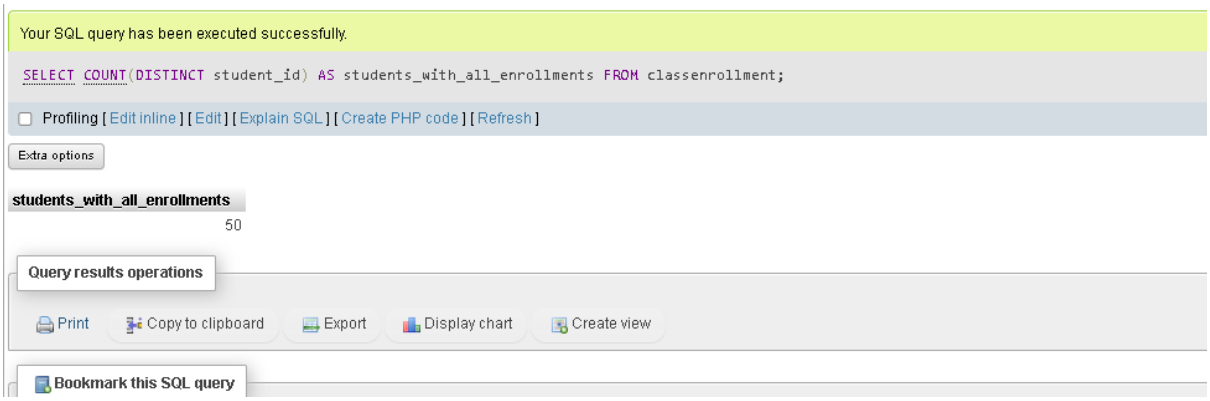
10. How many students have a grade value greater than 90 in the grade table?

11. What is the total amount spent in transactions in the transaction table?

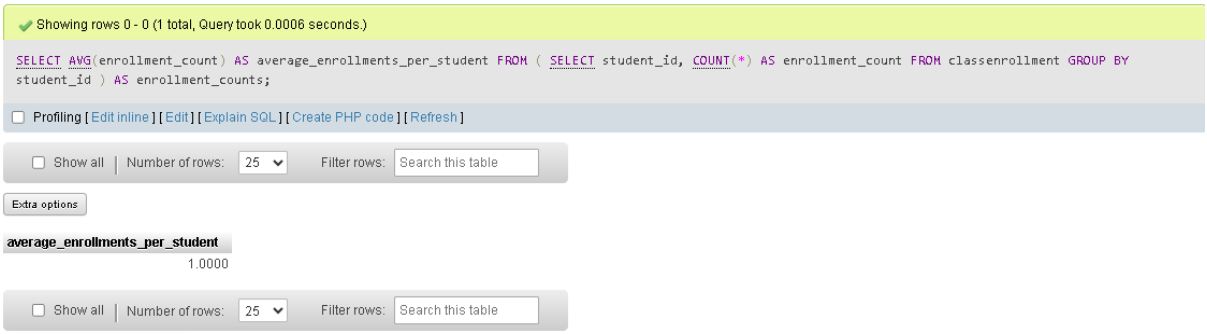
12. Which batch has the longest duration in the classbatch table?



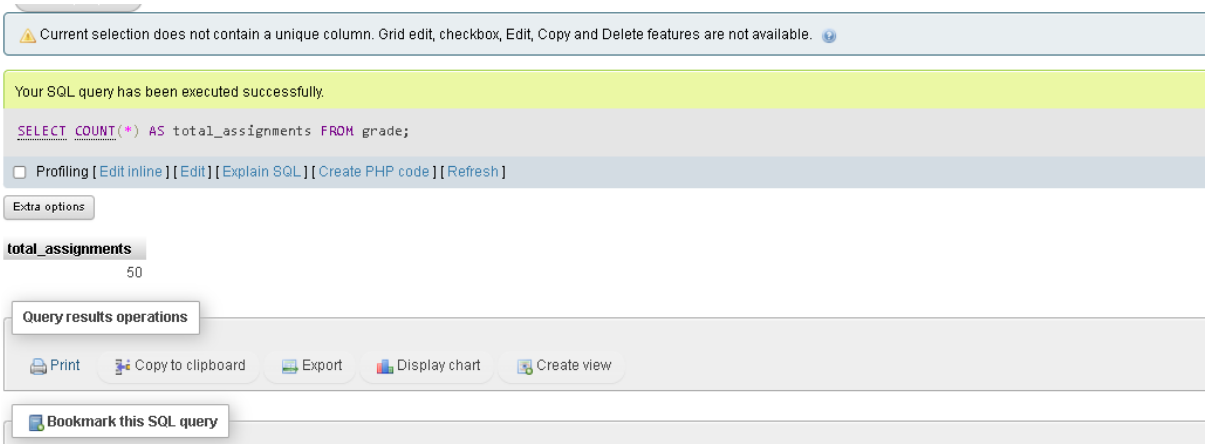
13. How many students have enrolled in all batches in the classenrollment table?



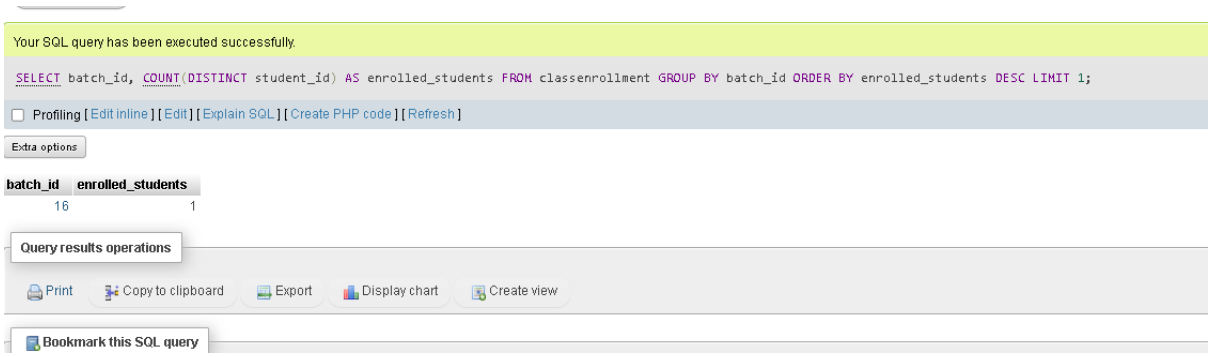
14. What is the average enrollment count per student in the classenrollment table?



15. What is the total number of assignments submitted in the grade table?

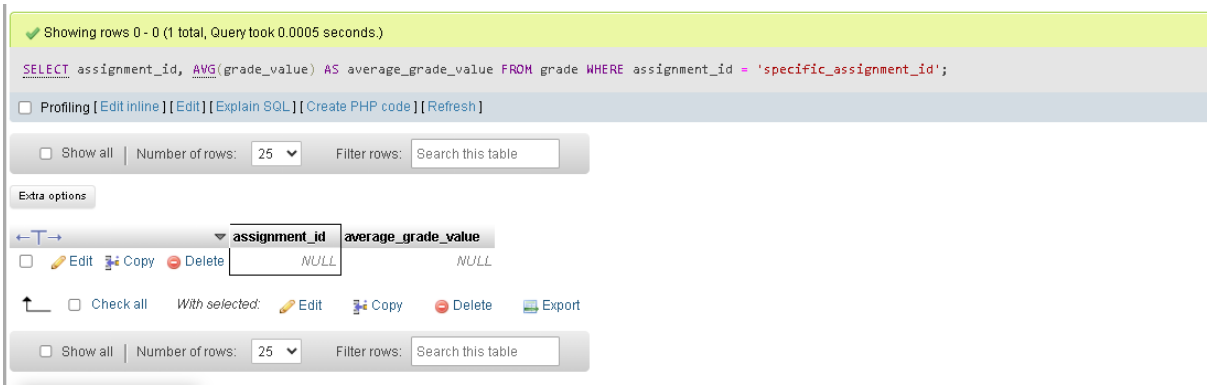


16. Which batch has the highest number of enrolled students in the classenrollment table?

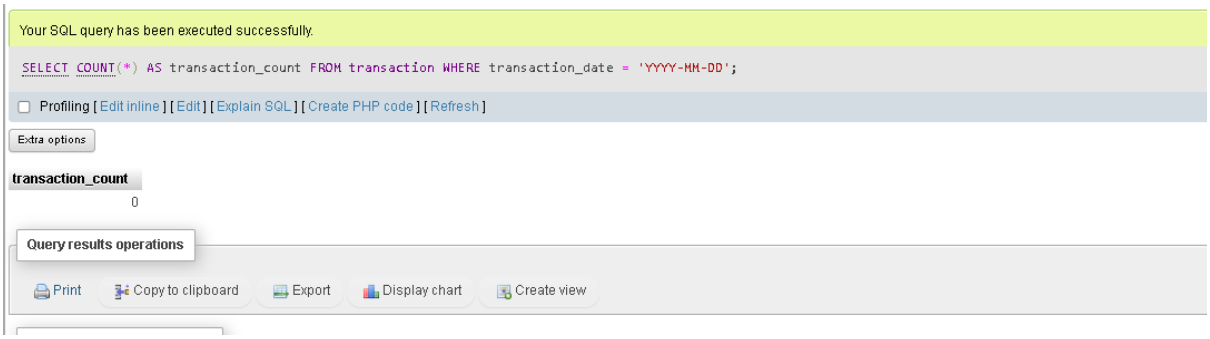


17. What is the maximum grade value in the grade table?

18. What is the average grade value for a specific assignment in the grade table?



19. How many transactions were made on a specific date in the transaction table?



20. What is the earliest enrollment date for a specific student in the classenrollment table?