**#SQL CODE**

mysql> INSERT INTO puzzle (case\_id, clue, answer) VALUES

-> (1, 'This five-letter word means "something you count on in a friend," but it’s also something that can be broken.', 'Trust'),

-> (1, 'A feeling that starts with "E," often felt when someone has what you want.', 'Envy'),

-> (1, 'Among the suspects, one has a unique habit of carrying an intricate silver mirror, which they often admire in quiet moments. Who is this?', 'Lady Agatha'),

-> (1, 'I am in the heart of friendship, yet I can turn it bitter when material wealth is near. I begin with "J" and often arise between those who are close.', 'Jealousy'),

-> (1, 'This word describes someone’s attachment to beautiful, valuable items.', 'Vanity'),

-> (2, 'A scrap of paper found at the scene reads: "The mask hides more than a face." What does it imply?', 'Deception'),

-> (2, 'I am the opposite of truth and can shatter lives. What am I?', 'Lies'),

-> (2, 'Which suspect claimed to be outside when the murder occurred?', 'David'),

-> (3, 'What do you call the longing for something that is not yours?', 'Desire'),

-> (3, 'What legal document is required to finalize an adoption?', 'Adoption papers'),

-> (3, 'Match the timeline of events leading up to the adoption.', 'analyze'),

-> (4, 'Review the footage to determine who was near the painting shortly before it disappeared.', 'Frank'),

-> (4, 'Identify the stolen painting\'s historical significance to narrow down suspects\' motives.', 'The Mona Lisa'),

-> (4, 'Analyze the financial records of the museum and the suspects.', 'Darren'),

-> (5, 'Reconstruct the timeline of the fire to pinpoint who was where.', 'Ethan'),

-> (5, 'Identify potential accelerants used in the fire from the debris.', 'Gasoline'),

-> (5, 'Determine who would benefit most from the fire and why.', 'Laura');

Query OK, 17 rows affected (0.00 sec)

Records: 17 Duplicates: 0 Warnings: 0

INSERT INTO hint (puzzle\_id, hint\_text) VALUES

(1, 'It’s something close friends value most.'),

(2, 'It’s a word for when you want something another person owns.'),

(3, 'Review the suspects’ descriptions; look for someone who treasures beautiful, personal items.'),

(4, 'Think of a feeling that can change close bonds, especially over valuable things.'),

(5, 'Look for the suspect known for their appreciation of beauty and luxury.')

(6, 'Suggests that someone at the ball may not be who they seem.'),

(7, 'Points to potential deceit among the suspects, hinting at hidden motives.'),

(8, 'His alibi needs to be confirmed to determine if he had the opportunity.'),

(11, 'The couple’s adoption story changes depending on who tells it. Pay close attention to the dates mentioned.'),

(9, 'Rachel has been searching for her child for months, but has she been misled into thinking the adoption was illegal?'),

(10, 'Look for the adoption papers. Are they signed by the right authorities and finalized properly?'),

(12, 'Look for anyone acting suspicious or lingering too long near the painting before it disappeared.'),

(13, 'The painting in question has had a long history of theft attempts. It holds great value beyond its artistic merit.'),

(14, 'One of the suspects was recently seen negotiating a large sum of money in exchange for the stolen painting.'),

(15, 'Check for any suspicious movements or phone calls made shortly before the fire started.'),

(16, 'Look for traces of chemicals that might have been used to accelerate the fire, especially around the point of origin.'),

(17, 'One suspect has more to gain than anyone else. Follow the money trail to uncover the motive.');

alter table suspect add culprit boolean default false;

Query OK, 0 rows affected (0.04 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> -- Suspects for Case 1 with culprit = 0

mysql> INSERT INTO suspect (case\_id, name, age, description, culprit) VALUES

-> (1, 'James', 54, 'A trusted servant of 15 years, known for his loyalty but recently burdened by debt from gambling. James was last seen leaving the Duchess’s chambers with a silver tray around the time of the theft.', 0),

-> (1, 'Michael', 32, 'Reserved and quiet, Michael was recently mourning his mother’s passing. Known for his attention to the estate\'s exotic plants, he was near the garden entrance that night, carrying a pouch for rare seeds.', 0),

-> (1, 'Thomas', 28, 'The Duchess’s only heir, rumored to be in financial trouble. He left the dinner briefly to take a mysterious phone call and had recently disagreed with the Duchess’s plans to leave her fortune to charity instead of him.', 0),

-> (1, 'Lady Agatha', 63, 'The Duchess’s closest friend, who was deeply upset by her decision to donate her wealth to charity. Lady Agatha was seen lingering near the Duchess\'s chambers during the event and has always been fond of the Duchess’s jewelry, especially the diamond necklace.', 1),

-> (1, 'Sarah', 41, 'Observant and discreet, Sarah noticed a stranger near the estate gates the previous night. She was seen near the Duchess’s hallway before the necklace was discovered missing, claiming she was inspecting the area after hearing suspicious noises.', 0);

Query OK, 5 rows affected (0.02 sec)

Records: 5 Duplicates: 0 Warnings: 0

mysql>

mysql> -- Suspects for Case 2 with culprit = 0

mysql> INSERT INTO suspect (case\_id, name, age, description, culprit) VALUES

-> (2, 'Isabella', 42, 'An ambitious politician who has clashed with the victim over policy issues and power.', 0),

-> (2, 'Julian', 55, 'A wealthy businessman who stood to lose a lucrative contract if the politician remained in power.', 0),

-> (2, 'Claire', 39, 'Recently divorced from the victim, she had been vocal about her disdain for him.', 0),

-> (2, 'David', 30, 'The victim\'s trusted bodyguard. He has a mysterious past that raises suspicion.', 1),

-> (2, 'Lydia', 28, 'A glamorous guest who was rumored to have had an affair with the victim, raising questions about jealousy.', 0);

Query OK, 5 rows affected (0.00 sec)

Records: 5 Duplicates: 0 Warnings: 0

mysql> INSERT INTO suspect (case\_id, name, age, description, culprit) VALUES

-> (3, 'Tom', 34, 'A seemingly loving husband who was unable to have children. He''s always been open about wanting to adopt.', 0),

-> (3, 'Sarah', 32, 'A seemingly loving wife who was unable to have children. She''s always been open about wanting to adopt.', 0),

-> (3, 'Rachel', 25, 'A young mother in distress who claims she was misled during the adoption process.', 0),

-> (3, 'Dr. Mitchell', 50, 'The family doctor who assisted in the adoption. He has been accused of unethical practices in the past.', 0),

-> (3, 'Lily', 40, 'A diligent social worker who oversaw the adoption but has been under scrutiny for her methods.', 0),

-> (3, 'Marcus', 45, 'A close friend of Tom and Sarah, he has been acting suspiciously since the allegations arose.', 0);

Query OK, 6 rows affected (0.02 sec)

Records: 6 Duplicates: 0 Warnings: 0

mysql>

mysql> -- Suspects for Case 4 (Art Theft)

mysql> INSERT INTO suspect (case\_id, name, age, description, culprit) VALUES

-> (4, 'Robert', 48, 'The curator who had previously been accused of mishandling art. He stands to gain fame if the exhibition succeeds.', 0),

-> (4, 'Maria', 36, 'Known for her controversial pieces, she was recently snubbed by the museum. Rumored to have a personal vendetta.', 0),

-> (4, 'Frank', 55, 'Overseeing security during the exhibition. There have been complaints about his lax security measures.', 0),

-> (4, 'Sophia', 30, 'A notorious thief posing as a legitimate artist, known for her cunning schemes.', 0),

-> (4, 'Darren', 42, 'A wealthy collector with a history of acquiring stolen art. He had been negotiating for the painting.', 0);

Query OK, 5 rows affected (0.01 sec)

Records: 5 Duplicates: 0 Warnings: 0

mysql>

mysql> -- Suspects for Case 5 (Building Fire)

mysql> INSERT INTO suspect (case\_id, name, age, description, culprit) VALUES

-> (5, 'Clara', 45, 'The mayor has been facing mounting pressure over a controversial development project tied to the building.', 0),

-> (5, 'Ethan', 38, 'The original architect of the building, he had strong opinions about its preservation and was upset about recent changes.', 0),

-> (5, 'Laura', 32, 'A local business owner whose store was affected by the building’s closure. She stands to gain from its destruction.', 0),

-> (5, 'Mike', 50, 'A respected figure with a suspicious past concerning insurance claims on buildings he has responded to.', 0),

-> (5, 'Sarah', 60, 'A passionate historian who was known to argue with the prominent figure over the building''s future.', 0);

Query OK, 5 rows affected (0.02 sec)

Records: 5 Duplicates: 0 Warnings: 0

mysql> select \* from `case`;

+---------+------------------------------+----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

| case\_id | title | overview

|

+---------+------------------------------+----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

| 1 | The Missing Necklace | During a high-society dinner at the Duchess of York's estate, her priceless diamond necklace vanished from her locked jewelry cabinet. A small group of trusted individuals were allowed in her quarters that night. Suspicion falls on those who had both opportunity and possible motives, but the true culprit must be found. |

| 2 | The Murder at the Masquerade | During a glamorous masquerade ball, a prominent politician is found dead in a locked room. The guests, all wearing masks, are the only witnesses to the crime, and each one may have a motive.

|

| 3 | The Illegal Adoption | In a small town, a local couple is accused of illegally adopting a child. The biological mother, desperate to find her child, raises suspicions about the couple's motives and the legality of their actions.

|

| 4 | The Art Theft Conspiracy | A priceless painting disappears from a museum during a high-profile exhibition. It turns out to be part of a larger conspiracy involving stolen art, and the suspects are all connected to the art world.

|

| 5 | The Mysterious Fire | A historic building in town is destroyed by a mysterious fire, killing a prominent figure inside. Was it an accident, or was it arson? The investigation reveals hidden agendas among the town?s elite.

|

+---------+------------------------------+----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

5 rows in set (0.00 sec)

mysql> select \* from hint;

+---------+-----------+-----------------------------------------------------------------------------------------------------------------------+

| hint\_id | puzzle\_id | hint\_text

|

+---------+-----------+-----------------------------------------------------------------------------------------------------------------------+

| 1 | 1 | It?s something close friends value most.

|

| 2 | 2 | It?s a word for when you want something another person owns.

|

| 3 | 3 | Review the suspects? descriptions; look for someone who treasures beautiful, personal items.

|

| 4 | 4 | Think of a feeling that can change close bonds, especially over valuable things.

|

| 5 | 5 | Look for the suspect known for their appreciation of beauty and luxury.

|

| 6 | 6 | Suggests that someone at the ball may not be who they seem.

|

| 7 | 7 | Points to potential deceit among the suspects, hinting at hidden motives.

|

| 8 | 8 | His alibi needs to be confirmed to determine if he had the opportunity.

|

| 9 | 11 | The couple?s adoption story changes depending on who tells it. Pay close attention to the dates mentioned. |

| 10 | 9 | Rachel has been searching for her child for months, but has she been misled into thinking the adoption was illegal? |

| 11 | 10 | Look for the adoption papers. Are they signed by the right authorities and finalized properly?

|

| 12 | 12 | Look for anyone acting suspicious or lingering too long near the painting before it disappeared.

|

| 13 | 13 | The painting in question has had a long history of theft attempts. It holds great value beyond its artistic merit. |

| 14 | 14 | One of the suspects was recently seen negotiating a large sum of money in exchange for the stolen painting. |

| 15 | 15 | Check for any suspicious movements or phone calls made shortly before the fire started.

|

| 16 | 16 | Look for traces of chemicals that might have been used to accelerate the fire, especially around the point of origin. |

| 17 | 17 | One suspect has more to gain than anyone else. Follow the money trail to uncover the motive.

|

+---------+-----------+-----------------------------------------------------------------------------------------------------------------------+

17 rows in set (0.00 sec)

mysql> select \* from puzzle;

+-----------+---------+-------------------------------------------------------------------------------------------------------------------------------------------------------+-----------------+

| puzzle\_id | case\_id | clue

| answer |

+-----------+---------+-------------------------------------------------------------------------------------------------------------------------------------------------------+-----------------+

| 1 | 1 | This five-letter word means "something you count on in a friend," but it?s also something that can be broken. | Trust |

| 2 | 1 | A feeling that starts with "E," often felt when someone has what you want.

| Envy |

| 3 | 1 | Among the suspects, one has a unique habit of carrying an intricate silver mirror, which they often admire in quiet moments. Who is this? | Lady Agatha |

| 4 | 1 | I am in the heart of friendship, yet I can turn it bitter when material wealth is near. I begin with "J" and often arise between those who are close. | Jealousy |

| 5 | 1 | This word describes someone?s attachment to beautiful, valuable items.

| Vanity |

| 6 | 2 | A scrap of paper found at the scene reads: "The mask hides more than a face." What does it imply?

| Deception |

| 7 | 2 | I am the opposite of truth and can shatter lives. What am I?

| Lies |

| 8 | 2 | Which suspect claimed to be outside when the murder occurred?

| David |

| 9 | 3 | What do you call the longing for something that is not yours?

| Desire |

| 10 | 3 | What legal document is required to finalize an adoption?

| Adoption papers |

| 11 | 3 | Match the timeline of events leading up to the adoption.

| analyze |

| 12 | 4 | Review the footage to determine who was near the painting shortly before it disappeared.

| Frank |

| 13 | 4 | Identify the stolen painting's historical significance to narrow down suspects' motives.

| The Mona Lisa |

| 14 | 4 | Analyze the financial records of the museum and the suspects.

| Darren |

| 15 | 5 | Reconstruct the timeline of the fire to pinpoint who was where.

| Ethan |

| 16 | 5 | Identify potential accelerants used in the fire from the debris. | Gasoline |

| 17 | 5 | Determine who would benefit most from the fire and why.

| Laura |

+-----------+---------+-------------------------------------------------------------------------------------------------------------------------------------------------------+-----------------+

17 rows in set (0.00 sec)

mysql> select \* from suspect;

+------------+---------+--------------+------+---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+---------+---------+

| suspect\_id | case\_id | name | age | description

| options | culprit |

+------------+---------+--------------+------+---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+---------+---------+

| 1 | 1 | James | 54 | A trusted servant of 15 years, known for his loyalty but recently burdened by debt from gambling. James was last seen leaving the Duchess?s chambers with a silver tray around the time of the theft.

| NULL | 0 |

| 2 | 1 | Michael | 32 | Reserved and quiet, Michael was recently mourning his mother?s passing. Known for his attention to the estate's exotic plants, he was near the garden entrance that night, carrying a pouch for rare seeds.

| NULL | 0 |

| 3 | 1 | Thomas | 28 | The Duchess only heir, rumored to be in financial trouble. He left the dinner briefly to take a mysterious phone call and had recently disagreed with the Duchess?s plans to leave her fortune to charity instead of him. | NULL | 0 |

| 4 | 1 | Lady Agatha | 63 | The Duchess closest friend, who was deeply upset by her decision to donate her wealth to charity. Lady Agatha was seen lingering near the Duchess's chambers during the event and has always been fond of the Duchess?s jewelry, especially the diamond necklace. | NULL | 0 |

| 5 | 1 | Sarah | 41 | Observant and discreet, Sarah noticed a stranger near the estate gates the previous night. She was seen near the Duchess?s hallway before the necklace was discovered missing, claiming she was inspecting the area after hearing suspicious noises. | NULL | 0 |

| 6 | 2 | Isabella | 42 | An ambitious politician who has clashed with the victim over policy issues and power.

| NULL | 0 |

| 7 | 2 | Julian | 55 | A wealthy businessman who stood to lose a lucrative contract if the politician remained in power.

| NULL | 0 |

| 8 | 2 | Claire | 39 | Recently divorced from the victim, she had been vocal about her disdain for him.

| NULL | 0 |

| 9 | 2 | David | 30 | The victim's trusted bodyguard. He has a mysterious past that raises suspicion.

| NULL | 0 |

| 10 | 2 | Lydia | 28 | A glamorous guest who was rumored to have had an affair with the victim, raising questions about jealousy.

| NULL | 0 |

| 11 | 3 | Tom | 34 | A seemingly loving husband who was unable to have children. He's always been open about wanting to adopt.

| NULL | 0 |

| 12 | 3 | Sarah | 32 | A seemingly loving wife who was unable to have children. She's always been open about wanting to adopt.

| NULL | 0 |

| 13 | 3 | Rachel | 25 | A young mother in distress who claims she was misled during the adoption process.

| NULL | 0 |

| 14 | 3 | Dr. Mitchell | 50 | The family doctor who assisted in the adoption. He has been accused of unethical practices in the past.

| NULL | 0 |

| 15 | 3 | Lily | 40 | A diligent social worker who oversaw the adoption but has been under scrutiny for her methods.

| NULL | 0 |

| 16 | 3 | Marcus | 45 | A close friend of Tom and Sarah, he has been acting suspiciously since the allegations arose.

| NULL | 0 |

| 17 | 4 | Robert | 48 | The curator who had previously been accused of mishandling art. He stands to gain fame if the exhibition succeeds.

| NULL | 0 |

| 18 | 4 | Maria | 36 | Known for her controversial pieces, she was recently snubbed by the museum. Rumored to have a personal vendetta.

| NULL | 0 |

| 19 | 4 | Frank | 55 | Overseeing security during the exhibition. There have been complaints about his lax security measures.

| NULL | 0 |

| 20 | 4 | Sophia | 30 | A notorious thief posing as a legitimate artist, known for her cunning schemes.

| NULL | 0 |

| 21 | 4 | Darren | 42 | A wealthy collector with a history of acquiring stolen art. He had been negotiating for the painting.

| NULL | 0 |

| 22 | 5 | Clara | 45 | The mayor has been facing mounting pressure over a controversial development project tied to the building.

| NULL | 0 |

| 23 | 5 | Ethan | 38 | The original architect of the building, he had strong opinions about its preservation and was upset about recent changes.

| NULL | 0 |

| 24 | 5 | Laura | 32 | A local business owner whose store was affected by the building?s closure. She stands to gain from its destruction. | NULL | 0 |

| 25 | 5 | Mike | 50 | A respected figure with a suspicious past concerning insurance claims on buildings he has responded to.

| NULL | 0 |

| 26 | 5 | Sarah | 60 | A passionate historian who was known to argue with the prominent figure over the building's future.

| NULL | 0 |

+------------+---------+--------------+------+---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+---------+---------+

mysql> CREATE TABLE puzzle\_options (

-> option\_id INT PRIMARY KEY AUTO\_INCREMENT,

-> puzzle\_id INT,

-> option\_text VARCHAR(100) NOT NULL,

-> FOREIGN KEY (puzzle\_id) REFERENCES puzzle(puzzle\_id)

-> );

Query OK, 0 rows affected (0.09 sec)

mysql> alter table puzzle\_options auto\_increment=1;

Query OK, 0 rows affected (0.02 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> INSERT INTO puzzle\_options (puzzle\_id, option\_text) VALUES

-> -- Options for puzzle\_id 1 (Trust)

-> (1, 'Trust'),

-> (1, 'Faith'),

-> (1, 'Reliability'),

-> (1, 'Commitment'),

->

-> -- Options for puzzle\_id 2 (Envy)

-> (2, 'Envy'),

-> (2, 'Excitement'),

-> (2, 'Elation'),

-> (2, 'Eagerness'),

->

-> -- Options for puzzle\_id 3 (Lady Agatha)

-> (3, 'Lady Agatha'),

-> (3, 'Lord Benedict'),

-> (3, 'Sir Charles'),

-> (3, 'Duke Edward'),

->

-> -- Options for puzzle\_id 4 (Jealousy)

-> (4, 'Jealousy'),

-> (4, 'Joy'),

-> (4, 'Justice'),

-> (4, 'Jubilation'),

->

-> -- Options for puzzle\_id 5 (Vanity)

-> (5, 'Vanity'),

-> (5, 'Greed'),

-> (5, 'Generosity'),

-> (5, 'Gratitude');

Query OK, 20 rows affected (0.02 sec)

Records: 20 Duplicates: 0 Warnings: 0

mysql> -- Insert options for the new puzzles of case 2

mysql> INSERT INTO puzzle\_options (puzzle\_id, option\_text) VALUES

-> -- Options for puzzle\_id 6 (Deception)

-> (6, 'Deception'),

-> (6, 'Disguise'),

-> (6, 'Mystery'),

-> (6, 'Illusion'),

->

-> -- Options for puzzle\_id 7 (Lies)

-> (7, 'Lies'),

-> (7, 'Truth'),

-> (7, 'Fiction'),

-> (7, 'Secrets'),

->

-> -- Options for puzzle\_id 8 (David)

-> (8, 'David'),

-> (8, 'Julian'),

-> (8, 'Isabella'),

-> (8, 'Claire'),

->

-> -- Options for puzzle\_id 9 (Desire)

-> (9, 'Desire'),

-> (9, 'Greed'),

-> (9, 'Yearning'),

-> (9, 'Ambition'),

->

-> -- Options for puzzle\_id 10 (Adoption papers)

-> (10, 'Adoption papers'),

-> (10, 'Birth certificate'),

-> (10, 'Consent form'),

-> (10, 'Legal agreement'),

->

-> -- Options for puzzle\_id 11 (analyze)

-> (11, 'analyze'),

-> (11, 'summarize'),

-> (11, 'review'),

-> (11, 'investigate'),

->

-> -- Options for puzzle\_id 12 (Frank)

-> (12, 'Frank'),

-> (12, 'Julia'),

-> (12, 'Sam'),

-> (12, 'Alice'),

->

-> -- Options for puzzle\_id 13 (The Mona Lisa)

-> (13, 'The Mona Lisa'),

-> (13, 'Starry Night'),

-> (13, 'The Last Supper'),

-> (13, 'Girl with a Pearl Earring'),

->

-> -- Options for puzzle\_id 14 (Darren)

-> (14, 'Darren'),

-> (14, 'Megan'),

-> (14, 'Leo'),

-> (14, 'Rachel'),

->

-> -- Options for puzzle\_id 15 (Ethan)

-> (15, 'Ethan'),

-> (15, 'James'),

-> (15, 'Olivia'),

-> (15, 'Sophia'),

->

-> -- Options for puzzle\_id 16 (Gasoline)

-> (16, 'Gasoline'),

-> (16, 'Kerosene'),

-> (16, 'Alcohol'),

-> (16, 'Diesel'),

->

-> -- Options for puzzle\_id 17 (Benefit most from the fire)

-> (17, 'Ethan'),

-> (17, 'James'),

-> (17, 'Olivia'),

-> (17, 'Sophia');

Query OK, 48 rows affected (0.02 sec)

Records: 48 Duplicates: 0 Warnings: 0

mysql> show tables

-> ;

+-------------------+

| Tables\_in\_cig |

+-------------------+

| case |

| hint |

| leaderboard |

| puzzle |

| puzzle\_options |

| suspect |

| suspect\_case\_view |

| user |

| user\_progress |

+-------------------+

9 rows in set (0.07 sec)

mysql> desc `case`;

+----------+--------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+----------+--------------+------+-----+---------+----------------+

| case\_id | int | NO | PRI | NULL | auto\_increment |

| title | varchar(100) | NO | | NULL | |

| overview | text | NO | | NULL | |

+----------+--------------+------+-----+---------+----------------+

3 rows in set (0.01 sec)

mysql> desc hint;

+-----------+------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+-----------+------+------+-----+---------+----------------+

| hint\_id | int | NO | PRI | NULL | auto\_increment |

| puzzle\_id | int | YES | MUL | NULL | |

| hint\_text | text | NO | | NULL | |

+-----------+------+------+-----+---------+----------------+

3 rows in set (0.00 sec)

mysql> desc leaderboard;

+----------------+-----------+------+-----+-------------------+-------------------+

| Field | Type | Null | Key | Default | Extra |

+----------------+-----------+------+-----+-------------------+-------------------+

| leaderboard\_id | int | NO | PRI | NULL | auto\_increment |

| user\_id | int | NO | MUL | NULL | |

| total\_points | int | NO | | NULL | |

| date | timestamp | YES | | CURRENT\_TIMESTAMP | DEFAULT\_GENERATED |

+----------------+-----------+------+-----+-------------------+-------------------+

4 rows in set (0.00 sec)

mysql> desc puzzle;

+-----------+--------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+-----------+--------------+------+-----+---------+----------------+

| puzzle\_id | int | NO | PRI | NULL | auto\_increment |

| case\_id | int | YES | MUL | NULL | |

| clue | text | NO | | NULL | |

| answer | varchar(100) | NO | | NULL | |

+-----------+--------------+------+-----+---------+----------------+

4 rows in set (0.00 sec)

mysql> desc puzzle\_options;

+-------------+--------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+-------------+--------------+------+-----+---------+----------------+

| option\_id | int | NO | PRI | NULL | auto\_increment |

| puzzle\_id | int | YES | MUL | NULL | |

| option\_text | varchar(100) | NO | | NULL | |

+-------------+--------------+------+-----+---------+----------------+

3 rows in set (0.00 sec)

mysql> desc suspect;

+-------------+--------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+-------------+--------------+------+-----+---------+----------------+

| suspect\_id | int | NO | PRI | NULL | auto\_increment |

| case\_id | int | YES | MUL | NULL | |

| name | varchar(100) | NO | | NULL | |

| age | int | YES | | NULL | |

| description | text | NO | | NULL | |

| culprit | tinyint(1) | YES | | 0 | |

+-------------+--------------+------+-----+---------+----------------+

6 rows in set (0.00 sec)

mysql> desc user;

+--------------+--------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+--------------+--------------+------+-----+---------+----------------+

| user\_id | int | NO | PRI | NULL | auto\_increment |

| username | varchar(50) | NO | UNI | NULL | |

| password | varchar(255) | NO | | NULL | |

| total\_points | int | YES | | 0 | |

+--------------+--------------+------+-----+---------+----------------+

4 rows in set (0.00 sec)

mysql> desc user\_progress;

+----------------+------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+----------------+------+------+-----+---------+----------------+

| progress\_id | int | NO | PRI | NULL | auto\_increment |

| user\_id | int | YES | MUL | NULL | |

| case\_id | int | YES | MUL | NULL | |

| current\_puzzle | int | YES | | 1 | |

+----------------+------+------+-----+---------+----------------+

4 rows in set (0.00 sec)

mysql> create trigger correct\_ans\_puzzle

-> after update on user\_progress

-> for each row

-> begin

-> if new.crct\_ans = 1 then

-> update user

-> set total\_points = total\_points + 10

-> where user\_id = new.user\_id;

-> end if;

-> end //

Query OK, 0 rows affected (0.09 sec)

mysql> create trigger hint\_used

-> after update on user\_progress

-> for each row

-> begin

-> if new.hint\_used = 1 then

-> update user

-> set total\_points = total\_points - 10

-> where user\_id = new.user\_id;

-> end if;

-> end //

Query OK, 0 rows affected (0.03 sec)

mysql> delimiter //

mysql> create trigger after\_suspect\_guess

-> after update on user\_progress

-> for each row

-> begin

-> declare solved\_puzzles int;

-> select count(\*)

-> into solved\_puzzles

-> from user\_progress

-> where user\_id = new.user\_id

-> and case\_id = new.case\_id and crct\_ans =1;

-> if new.crct\_ans =1 then

-> if solved\_puzzles <= 3 then

-> update user

-> set total\_points = total\_points + 100

-> where user\_id = new.user\_id;

-> else

-> update user

-> set total\_points = total\_points - 20

-> where user\_id = new.user\_id;

-> end if;

-> end if;

-> end //

Query OK, 0 rows affected (0.03 sec)

mysql> create trigger after\_leaderboard\_update

-> after update on user

-> for each row

-> begin

-> -- Update or insert into leaderboard table after user points change

-> insert into leaderboard (user\_id, total\_points)

-> values (new.user\_id, new.total\_points)

-> on duplicate key update total\_points = new.total\_points;

-> end //

Query OK, 0 rows affected (0.06 sec)

**QUERIES :**

mysql> SELECT \* FROM `case`

-> WHERE case\_id BETWEEN 1 AND 3;

+---------+------------------------------+----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

| case\_id | title | overview |

+---------+------------------------------+----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

| 1 | The Missing Necklace | During a high-society dinner at the Duchess of York's estate, her priceless diamond necklace vanished from her locked jewelry cabinet. A small group of trusted individuals were allowed in her quarters that night. Suspicion falls on those who had both opportunity and possible motives, but the true culprit must be found. |

| 2 | The Murder at the Masquerade | During a glamorous masquerade ball, a prominent politician is found dead in a locked room. The guests, all wearing masks, are the only witnesses to the crime, and each one may have a motive.

|

| 3 | The Illegal Adoption | In a small town, a local couple is accused of illegally adopting a child. The biological mother, desperate to find her child, raises suspicions about the couple's motives and the legality of their actions.

|

+---------+------------------------------+----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

3 rows in set (0.01 sec)

mysql>

mysql> SELECT \* FROM `case`

-> WHERE title LIKE '%The%';

+---------+------------------------------+----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

| case\_id | title | overview

|

+---------+------------------------------+----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

| 1 | The Missing Necklace | During a high-society dinner at the Duchess of York's estate, her priceless diamond necklace vanished from her locked jewelry cabinet. A small group of trusted individuals were allowed in her quarters that night. Suspicion falls on those who had both opportunity and possible motives, but the true culprit must be found. |

| 2 | The Murder at the Masquerade | During a glamorous masquerade ball, a prominent politician is found dead in a locked room. The guests, all wearing masks, are the only witnesses to the crime, and each one may have a motive.

|

| 3 | The Illegal Adoption | In a small town, a local couple is accused of illegally adopting a child. The biological mother, desperate to find her child, raises suspicions about the couple's motives and the legality of their actions.

|

| 4 | The Art Theft Conspiracy | A priceless painting disappears from a museum during a high-profile exhibition. It turns out to be part of a larger conspiracy involving stolen art, and the suspects are all connected to the art world.

|

| 5 | The Mysterious Fire | A historic building in town is destroyed by a mysterious fire, killing a prominent figure inside. Was it an accident, or was it arson? The investigation reveals hidden agendas among the town?s elite.

|

+---------+------------------------------+----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

5 rows in set (0.02 sec)

mysql> select \* from suspect

-> WHERE case\_id = 1 AND description LIKE '%friend%';

+------------+---------+-------------+------+---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+---------+

| suspect\_id | case\_id | name | age | description

| culprit |

+------------+---------+-------------+------+---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+---------+

| 4 | 1 | Lady Agatha | 63 | The Duchess?s closest friend, who was deeply upset by her decision to donate her wealth to charity. Lady Agatha was seen lingering near the Duchess's chambers during the event and has always been fond of the Duchess?s jewelry, especially the diamond necklace. | 1 |

+------------+---------+-------------+------+---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+---------+

1 row in set (0.00 sec)

mysql> SELECT \* FROM `case`

-> ORDER BY title DESC;

+---------+------------------------------+----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

| case\_id | title | overview

|

+---------+------------------------------+----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

| 5 | The Mysterious Fire | A historic building in town is destroyed by a mysterious fire, killing a prominent figure inside. Was it an accident, or was it arson? The investigation reveals hidden agendas among the town?s elite.

|

| 2 | The Murder at the Masquerade | During a glamorous masquerade ball, a prominent politician is found dead in a locked room. The guests, all wearing masks, are the only witnesses to the crime, and each one may have a motive.

|

| 1 | The Missing Necklace | During a high-society dinner at the Duchess of York's estate, her priceless diamond necklace vanished from her locked jewelry cabinet. A small group of trusted individuals were allowed in her quarters that night. Suspicion falls on those who had both opportunity and possible motives, but the true culprit must be found. |

| 3 | The Illegal Adoption | In a small town, a local couple is accused of illegally adopting a child. The biological mother, desperate to find her child, raises suspicions about the couple's motives and the legality of their actions.

|

| 4 | The Art Theft Conspiracy | A priceless painting disappears from a museum during a high-profile exhibition. It turns out to be part of a larger conspiracy involving stolen art, and the suspects are all connected to the art world.

|

+---------+------------------------------+----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

5 rows in set (0.02 sec)

mysql> select \* from hint

-> order by hint\_text;

+---------+-----------+-----------------------------------------------------------------------------------------------------------------------+

| hint\_id | puzzle\_id | hint\_text |

+---------+-----------+-----------------------------------------------------------------------------------------------------------------------+

| 15 | 15 | Check for any suspicious movements or phone calls made shortly before the fire started. |

| 8 | 8 | His alibi needs to be confirmed to determine if he had the opportunity. |

| 2 | 2 | It?s a word for when you want something another person owns. |

| 1 | 1 | It?s something close friends value most. |

| 12 | 12 | Look for anyone acting suspicious or lingering too long near the painting before it disappeared. |

| 11 | 10 | Look for the adoption papers. Are they signed by the right authorities and finalized properly?

|

| 5 | 5 | Look for the suspect known for their appreciation of beauty and luxury.

|

| 16 | 16 | Look for traces of chemicals that might have been used to accelerate the fire, especially around the point of origin. |

| 14 | 14 | One of the suspects was recently seen negotiating a large sum of money in exchange for the stolen painting. |

| 17 | 17 | One suspect has more to gain than anyone else. Follow the money trail to uncover the motive.

|

| 7 | 7 | Points to potential deceit among the suspects, hinting at hidden motives.

|

| 10 | 9 | Rachel has been searching for her child for months, but has she been misled into thinking the adoption was illegal? |

| 3 | 3 | Review the suspects? descriptions; look for someone who treasures beautiful, personal items.

|

| 6 | 6 | Suggests that someone at the ball may not be who they seem.

|

| 9 | 11 | The couple?s adoption story changes depending on who tells it. Pay close attention to the dates mentioned. |

| 13 | 13 | The painting in question has had a long history of theft attempts. It holds great value beyond its artistic merit. |

| 4 | 4 | Think of a feeling that can change close bonds, especially over valuable things.

|

+---------+-----------+-----------------------------------------------------------------------------------------------------------------------+

17 rows in set (0.00 sec)

mysql> SELECT case\_id, COUNT(\*) AS number\_of\_suspects

-> FROM `suspect`

-> GROUP BY case\_id;

+---------+--------------------+

| case\_id | number\_of\_suspects |

+---------+--------------------+

| 1 | 5 |

| 2 | 5 |

| 3 | 6 |

| 4 | 5 |

| 5 | 5 |

+---------+--------------------+

5 rows in set (0.02 sec)

mysql> select user\_id,DATE\_FORMAT(date, '%d-%m-%Y %H:%i:%s') AS formatted\_date

-> from leaderboard

-> ;

+---------+---------------------+

| user\_id | formatted\_date |

+---------+---------------------+

| 87 | 15-11-2024 01:58:02 |

| 87 | 15-11-2024 02:02:25 |

| 87 | 15-11-2024 02:09:11 |

| 87 | 15-11-2024 02:11:14 |

| 87 | 15-11-2024 02:13:27 |

| 87 | 15-11-2024 02:25:28 |

| 87 | 15-11-2024 02:26:47 |

| 87 | 15-11-2024 02:27:00 |

| 87 | 15-11-2024 02:34:04 |

| 87 | 15-11-2024 02:34:43 |

| 88 | 15-11-2024 02:38:44 |

| 88 | 15-11-2024 02:44:41 |

| 89 | 15-11-2024 08:17:49 |

| 89 | 15-11-2024 08:18:08 |

| 90 | 15-11-2024 08:24:46 |

| 90 | 15-11-2024 08:25:00 |

| 90 | 15-11-2024 08:25:17 |

| 90 | 15-11-2024 08:25:33 |

| 90 | 15-11-2024 08:25:43 |

+---------+---------------------+

19 rows in set (0.00 sec)

mysql> SELECT case\_id, COUNT(\*) AS number\_of\_suspects

-> FROM `suspect`

-> GROUP BY case\_id

-> HAVING COUNT(\*) > 2;

+---------+--------------------+

| case\_id | number\_of\_suspects |

+---------+--------------------+

| 1 | 5 |

| 2 | 5 |

| 3 | 6 |

| 4 | 5 |

| 5 | 5 |

+---------+--------------------+

5 rows in set (0.00 sec)

mysql> SELECT c.title, s.name

-> FROM `case` c

-> CROSS JOIN `suspect` s;

+------------------------------+--------------+

| title | name |

+------------------------------+--------------+

| The Mysterious Fire | James |

| The Art Theft Conspiracy | James |

| The Illegal Adoption | James |

| The Murder at the Masquerade | James |

| The Missing Necklace | James |

| The Mysterious Fire | Michael |

| The Art Theft Conspiracy | Michael |

| The Illegal Adoption | Michael |

| The Murder at the Masquerade | Michael |

| The Missing Necklace | Michael |

| The Mysterious Fire | Thomas |

| The Art Theft Conspiracy | Thomas |

| The Illegal Adoption | Thomas |

| The Murder at the Masquerade | Thomas |

| The Missing Necklace | Thomas |

| The Mysterious Fire | Lady Agatha |

| The Art Theft Conspiracy | Lady Agatha |

| The Illegal Adoption | Lady Agatha |

| The Murder at the Masquerade | Lady Agatha |

| The Missing Necklace | Lady Agatha |

| The Mysterious Fire | Sarah |

| The Art Theft Conspiracy | Sarah |

| The Illegal Adoption | Sarah |

| The Murder at the Masquerade | Sarah |

| The Missing Necklace | Sarah |

| The Mysterious Fire | Isabella |

| The Art Theft Conspiracy | Isabella |

| The Illegal Adoption | Isabella |

| The Murder at the Masquerade | Isabella |

| The Missing Necklace | Isabella |

| The Mysterious Fire | Julian |

| The Art Theft Conspiracy | Julian |

| The Illegal Adoption | Julian |

| The Murder at the Masquerade | Julian |

| The Missing Necklace | Julian |

| The Mysterious Fire | Claire |

| The Art Theft Conspiracy | Claire |

| The Illegal Adoption | Claire |

| The Murder at the Masquerade | Claire |

| The Missing Necklace | Claire |

| The Mysterious Fire | David |

| The Art Theft Conspiracy | David |

| The Illegal Adoption | David |

| The Murder at the Masquerade | David |

| The Missing Necklace | David |

| The Mysterious Fire | Lydia |

| The Art Theft Conspiracy | Lydia |

| The Illegal Adoption | Lydia |

| The Murder at the Masquerade | Lydia |

| The Missing Necklace | Lydia |

| The Mysterious Fire | Tom |

| The Art Theft Conspiracy | Tom |

| The Illegal Adoption | Tom |

| The Murder at the Masquerade | Tom |

| The Missing Necklace | Tom |

| The Mysterious Fire | Sarah |

| The Art Theft Conspiracy | Sarah |

| The Illegal Adoption | Sarah |

| The Murder at the Masquerade | Sarah |

| The Missing Necklace | Sarah |

| The Mysterious Fire | Rachel |

| The Art Theft Conspiracy | Rachel |

| The Illegal Adoption | Rachel |

| The Murder at the Masquerade | Rachel |

| The Missing Necklace | Rachel |

| The Mysterious Fire | Dr. Mitchell |

| The Art Theft Conspiracy | Dr. Mitchell |

| The Illegal Adoption | Dr. Mitchell |

| The Murder at the Masquerade | Dr. Mitchell |

| The Missing Necklace | Dr. Mitchell |

| The Mysterious Fire | Lily |

| The Art Theft Conspiracy | Lily |

| The Illegal Adoption | Lily |

| The Murder at the Masquerade | Lily |

| The Missing Necklace | Lily |

| The Mysterious Fire | Marcus |

| The Art Theft Conspiracy | Marcus |

| The Illegal Adoption | Marcus |

| The Murder at the Masquerade | Marcus |

| The Missing Necklace | Marcus |

| The Mysterious Fire | Robert |

| The Art Theft Conspiracy | Robert |

| The Illegal Adoption | Robert |

| The Murder at the Masquerade | Robert |

| The Missing Necklace | Robert |

| The Mysterious Fire | Maria |

| The Art Theft Conspiracy | Maria |

| The Illegal Adoption | Maria |

| The Murder at the Masquerade | Maria |

| The Missing Necklace | Maria |

| The Mysterious Fire | Frank |

| The Art Theft Conspiracy | Frank |

| The Illegal Adoption | Frank |

| The Murder at the Masquerade | Frank |

| The Missing Necklace | Frank |

| The Mysterious Fire | Sophia |

| The Art Theft Conspiracy | Sophia |

| The Illegal Adoption | Sophia |

| The Murder at the Masquerade | Sophia |

| The Missing Necklace | Sophia |

| The Mysterious Fire | Darren |

| The Art Theft Conspiracy | Darren |

| The Illegal Adoption | Darren |

| The Murder at the Masquerade | Darren |

| The Missing Necklace | Darren |

| The Mysterious Fire | Clara |

| The Art Theft Conspiracy | Clara |

| The Illegal Adoption | Clara |

| The Murder at the Masquerade | Clara |

| The Missing Necklace | Clara |

| The Mysterious Fire | Ethan |

| The Art Theft Conspiracy | Ethan |

| The Illegal Adoption | Ethan |

| The Murder at the Masquerade | Ethan |

| The Missing Necklace | Ethan |

| The Mysterious Fire | Laura |

| The Art Theft Conspiracy | Laura |

| The Illegal Adoption | Laura |

| The Murder at the Masquerade | Laura |

| The Missing Necklace | Laura |

| The Mysterious Fire | Mike |

| The Art Theft Conspiracy | Mike |

| The Illegal Adoption | Mike |

| The Murder at the Masquerade | Mike |

| The Missing Necklace | Mike |

| The Mysterious Fire | Sarah |

| The Art Theft Conspiracy | Sarah |

| The Illegal Adoption | Sarah |

| The Murder at the Masquerade | Sarah |

| The Missing Necklace | Sarah |

+------------------------------+--------------+

130 rows in set (0.02 sec)

mysql> select p.puzzle\_id,p.clue,o.option\_text

-> from puzzle p inner join puzzle\_options o

-> on p.puzzle\_id=o.puzzle\_id

-> limit 5;

+-----------+---------------------------------------------------------------------------------------------------------------+-------------+

| puzzle\_id | clue | option\_text |

+-----------+---------------------------------------------------------------------------------------------------------------+-------------+

| 1 | This five-letter word means "something you count on in a friend," but it?s also something that can be broken. | Trust |

| 1 | This five-letter word means "something you count on in a friend," but it?s also something that can be broken. | Faith |

| 1 | This five-letter word means "something you count on in a friend," but it?s also something that can be broken. | Reliability |

| 1 | This five-letter word means "something you count on in a friend," but it?s also something that can be broken. | Commitment |

| 2 | A feeling that starts with "E," often felt when someone has what you want. | Envy |

+-----------+---------------------------------------------------------------------------------------------------------------+-------------+

5 rows in set (0.00 sec)

mysql> select u.user\_id,l.total\_points

-> from user u left outer join leaderboard l

-> on u.user\_id=l.user\_id;

+---------+--------------+

| user\_id | total\_points |

+---------+--------------+

| 60 | NULL |

| 61 | NULL |

| 88 | -10 |

| 88 | -30 |

| 87 | -50 |

| 87 | -20 |

| 87 | 60 |

| 87 | 220 |

| 87 | 540 |

| 87 | 1070 |

| 87 | 2130 |

| 87 | 4280 |

| 87 | 8550 |

| 87 | 17200 |

| 89 | -10 |

| 89 | 80 |

| 62 | NULL |

mysql> select u.user\_id,l.date

-> from user u right outer join leaderboard l

-> on u.user\_id=l.user\_id

-> ;

+---------+---------------------+

| user\_id | date |

+---------+---------------------+

| 87 | 2024-11-15 01:58:02 |

| 87 | 2024-11-15 02:02:25 |

| 87 | 2024-11-15 02:09:11 |

| 87 | 2024-11-15 02:11:14 |

| 87 | 2024-11-15 02:13:27 |

| 87 | 2024-11-15 02:25:28 |

| 87 | 2024-11-15 02:26:47 |

| 87 | 2024-11-15 02:27:00 |

| 87 | 2024-11-15 02:34:04 |

| 87 | 2024-11-15 02:34:43 |

| 88 | 2024-11-15 02:38:44 |

| 88 | 2024-11-15 02:44:41 |

| 89 | 2024-11-15 08:17:49 |

| 89 | 2024-11-15 08:18:08 |

| 90 | 2024-11-15 08:24:46 |

| 90 | 2024-11-15 08:25:00 |

| 90 | 2024-11-15 08:25:17 |

| 90 | 2024-11-15 08:25:33 |

| 90 | 2024-11-15 08:25:43 |

+---------+---------------------+

19 rows in set (0.00 sec)

mysql> SELECT user\_id

-> FROM user

-> WHERE total\_points = (SELECT MAX(total\_points) FROM user);

+---------+

| user\_id |

+---------+

| 87 |

+---------+

1 row in set (0.00 sec)

mysql> SELECT \* FROM `case`

-> WHERE case\_id = (

-> SELECT case\_id

-> FROM `suspect`

-> GROUP BY case\_id

-> ORDER BY COUNT(\*) DESC

-> LIMIT 1

-> );

+---------+----------------------+---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

| case\_id | title | overview

|

+---------+----------------------+---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

| 3 | The Illegal Adoption | In a small town, a local couple is accused of illegally adopting a child. The biological mother, desperate to find her child, raises suspicions about the couple's motives and the legality of their actions. |

+---------+----------------------+---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

1 row in set (0.02 sec)

mysql> SELECT \* FROM `case`

-> WHERE case\_id IN (

-> SELECT case\_id

-> FROM `suspect`

-> WHERE description LIKE '%art%'

-> );

+---------+--------------------------+-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

| case\_id | title | overview

|

+---------+--------------------------+-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

| 4 | The Art Theft Conspiracy | A priceless painting disappears from a museum during a high-profile exhibition. It turns out to be part of a larger conspiracy involving stolen art, and the suspects are all connected to the art world. |

+---------+--------------------------+-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

1 row in set (0.02 sec)

mysql> CREATE VIEW suspect\_case\_view AS

-> SELECT s.name, c.title

-> FROM `suspect` s

-> INNER JOIN `case` c ON s.case\_id = c.case\_id;

mysql> SELECT \* FROM suspect\_case\_view;

+--------------+------------------------------+

| name | title |

+--------------+------------------------------+

| James | The Missing Necklace |

| Michael | The Missing Necklace |

| Thomas | The Missing Necklace |

| Lady Agatha | The Missing Necklace |

| Sarah | The Missing Necklace |

| Isabella | The Murder at the Masquerade |

| Julian | The Murder at the Masquerade |

| Claire | The Murder at the Masquerade |

| David | The Murder at the Masquerade |

| Lydia | The Murder at the Masquerade |

| Tom | The Illegal Adoption |

| Sarah | The Illegal Adoption |

| Rachel | The Illegal Adoption |

| Dr. Mitchell | The Illegal Adoption |

| Lily | The Illegal Adoption |

| Marcus | The Illegal Adoption |

| Robert | The Art Theft Conspiracy |

| Maria | The Art Theft Conspiracy |

| Frank | The Art Theft Conspiracy |

| Sophia | The Art Theft Conspiracy |

| Darren | The Art Theft Conspiracy |

| Clara | The Mysterious Fire |

| Ethan | The Mysterious Fire |

| Laura | The Mysterious Fire |

| Mike | The Mysterious Fire |

| Sarah | The Mysterious Fire |

+--------------+------------------------------+

26 rows in set (0.02 sec)

mysql> set profiling=1;

Query OK, 0 rows affected, 1 warning (0.00 sec)

mysql> SELECT \* FROM `user`

-> WHERE username LIKE 'tan%';

+---------+----------+----------+--------------+

| user\_id | username | password | total\_points |

+---------+----------+----------+--------------+

| 65 | tan1 | pppp4 | 0 |

| 66 | tan123 | abcd | 0 |

| 67 | tan4 | pppp1 | 0 |

| 68 | tan9J05 | pass1 | 0 |

+---------+----------+----------+--------------+

4 rows in set (0.00 sec)

mysql> show profiles;

+----------+------------+-------------------------------------------------+

| Query\_ID | Duration | Query |

+----------+------------+-------------------------------------------------+

| 1 | 0.00123600 | SELECT \* FROM `user`

WHERE username LIKE 'tan%' |

+----------+------------+-------------------------------------------------+

1 row in set, 1 warning (0.00 sec)

mysql>

mysql> CREATE INDEX idx\_username ON `user`(username);

ERROR 1061 (42000): Duplicate key name 'idx\_username'

mysql> SELECT \* FROM `user`

-> WHERE username LIKE 'tan%';

+---------+----------+----------+--------------+

| user\_id | username | password | total\_points |

+---------+----------+----------+--------------+

| 65 | tan1 | pppp4 | 0 |

| 66 | tan123 | abcd | 0 |

| 67 | tan4 | pppp1 | 0 |

| 68 | tan9J05 | pass1 | 0 |

+---------+----------+----------+--------------+

4 rows in set (0.00 sec)

mysql> show profiles;

+----------+------------+-------------------------------------------------+

| Query\_ID | Duration | Query |

+----------+------------+-------------------------------------------------+

| 1 | 0.00123600 | SELECT \* FROM `user`

WHERE username LIKE 'tan%' |

| 2 | 0.00771525 | CREATE INDEX idx\_username ON `user`(username) |

| 3 | 0.00084700 | SELECT \* FROM `user`

WHERE username LIKE 'tan%' |

+----------+------------+-------------------------------------------------+

3 rows in set, 1 warning (0.00 sec)

mysql> SELECT user\_id, MAX(total\_points) AS highest\_points

-> FROM leaderboard

-> GROUP BY user\_id

-> ORDER BY highest\_points DESC;

+---------+----------------+

| user\_id | highest\_points |

+---------+----------------+

| 87 | 17200 |

| 90 | 740 |

| 89 | 80 |

| 88 | -10 |

+---------+----------------+

4 rows in set (0.00 sec)

mysql> create procedure adduser(in new\_username varchar(50), in new\_password varchar(255))

-> begin

-> insert into `user` (username, password)

-> values (new\_username, new\_password);

-> end$$

Query OK, 0 rows affected (0.05 sec)

mysql> call adduser('tanj05','iatp');

Query OK, 1 row affected (0.07 sec)

mysql> create procedure addcasewithpuzzle(

-> in case\_title varchar(100),

-> in case\_overview text,

-> in puzzle\_clue text,

-> in puzzle\_answer varchar(100)

-> )

-> begin

-> declare new\_case\_id int;

-> insert into `case` (title, overview)

-> values (case\_title, case\_overview);

-> set new\_case\_id = last\_insert\_id();

-> insert into `puzzle` (case\_id, clue, answer)

-> values (new\_case\_id, puzzle\_clue, puzzle\_answer);

-> end$$

Query OK, 0 rows affected (0.08 sec)

mysql> create procedure deleterecords(in case\_id int)

-> begin

-> delete from `evidence` where case\_id = case\_id;

-> delete from `suspect` where case\_id = case\_id;

-> delete from `puzzle` where case\_id = case\_id;

-> delete from `case` where case\_id = case\_id;

-> end$$

Query OK, 0 rows affected (0.08 sec)

mysql> create function getnumberofsuspects(in\_case\_id int)

-> returns int

-> deterministic

-> begin

-> declare suspect\_count int;

-> select count(\*) into suspect\_count

-> from `suspect`

-> where case\_id = in\_case\_id;

-> return suspect\_count;

-> end$$

Query OK, 0 rows affected (0.02 sec)

mysql> select getnumberofsuspects(2)$$

+------------------------+

| getnumberofsuspects(2) |

+------------------------+

| 5 |

+------------------------+

1 row in set (0.02 sec)

mysql> create function getaveragepoints()

-> returns decimal(10,2)

-> deterministic

-> begin

-> declare avg\_points decimal(10,2);

-> select avg(total\_points) into avg\_points

-> from `user`;

-> return avg\_points;

-> end$$

Query OK, 0 rows affected (0.11 sec)

mysql> select getaveragepoints();

-> $$

+--------------------+

| getaveragepoints() |

+--------------------+

| 399.78 |

+--------------------+

1 row in set (0.02 sec)

mysql> delimiter //

mysql> create trigger after\_suspect\_guess

-> after update on user\_progress

-> for each row

-> begin

-> declare solved\_puzzles int;

-> select count(\*)

-> into solved\_puzzles

-> from user\_progress

-> where user\_id = new.user\_id

-> and case\_id = new.case\_id and crct\_ans =1;

-> if new.crct\_ans =1 then

-> if solved\_puzzles <= 3 then

-> update user

-> set total\_points = total\_points + 100

-> where user\_id = new.user\_id;

-> else

-> update user

-> set total\_points = total\_points - 20

-> where user\_id = new.user\_id;

-> end if;

-> end if;

-> end //

Query OK, 0 rows affected (0.03 sec)

mysql> create trigger after\_leaderboard\_update

-> after update on user

-> for each row

-> begin

-> -- Update or insert into leaderboard table after user points change

-> insert into leaderboard (user\_id, total\_points)

-> values (new.user\_id, new.total\_points)

-> on duplicate key update total\_points = new.total\_points;

-> end //

Query OK, 0 rows affected (0.06 sec)

mysql> create procedure suspect\_description(in\_suspect\_id int)

-> begin

-> declare done int default 0;

-> declare name\_var varchar(100);

-> declare age\_var int;

-> declare description\_var varchar(255);

-> declare cur cursor for

-> select name, age, description

-> from `suspect`

-> where suspect\_id = in\_suspect\_id; -- Corrected condition

-> declare continue handler for not found set done = 1;

->

-> open cur;

-> fetch cur into name\_var, age\_var, description\_var;

->

-> while not done do

-> select concat(name\_var, ', Age: ', age\_var, ' - ', description\_var) as full\_description;

-> fetch cur into name\_var, age\_var, description\_var;

-> end while;

->

-> close cur;

-> end$$

Query OK, 0 rows affected (0.02 sec)

mysql>

mysql> delimiter ;

mysql> call suspect\_description(5);

+-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

| full\_description

|

+-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

| Sarah, Age: 41 - Observant and discreet, Sarah noticed a stranger near the estate gates the previous night. She was seen near the Duchess?s hallway before the necklace was discovered missing, claiming she was inspecting the area after hearing suspicious noises. |

+-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

1 row in set (0.00 sec)

Query OK, 0 rows affected (0.02 sec)