Pokémon Pokédex

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Outline

Pokémon is a RPG (role playing game) developed by Game Freak and published by Nintendo in the early 90's. The game had immense popularity in the 90's and spanned to other media. The game is centered on trainers known as Pokémon Trainers who catch, train and battle the creatures called Pokémon. There have been many versions that have been released since the original game, expanding on the Pokémon universe. The data that we will use for our Pokédex will be based on the first generation (Red/Blue/Green/Yellow).

The game mechanics allows a trainer to keep a maximum of 6 Pokémon at a time in their team. The trainer builds a team around each Pokémon's type and skill set. The first generation had a total of 151 Pokémon and 15 different Pokémon types. Each Pokémon had one or two types they were associated with. For example, a Pokémon could be both a Flying type and a Fire type Pokémon. The Pokémon would get the strengths and weakness of both types.

Part of the success for the game can be attributed to the freedom the game allows you to have. As a trainer you could train all your Pokémon to the maximum level of 100 or you could spend your time collecting all 151 Pokémon. For our project, we focused on re-creating the pokédex and build a database that allows the user to get information on Pokémon and look at different attributes it has.

Database Outline in Words

The database is comprised of 4 main entities; Pokémon, Trainers, Routes and Moves.

The Pokémon table holds information similar to some of the information that is found in the game; the Pokémon ID, name and description of the Pokémon. The Pokémon ID is not auto-increment because the Pokémon in the game have set numbers for each specific Pokémon. Each Pokémon will also have a unique type associated with it. The primary key for the Pokémon table is the Pokémon ID and the unique key is the type.

The world of Pokémon is very large. It is comprised of towns, cities, routes (connects cities/towns together), etc. Generation 1 is revolved in the Kanto region. The routes table has the route id, name and description. The id will auto increment and be the primary key for the table. The unique key for the table will be the name. Both the id and name cannot be null.

A Pokémon trainer will come across other trainers on his/her journey. The trainer table will have an ID, name and description. The ID auto-increments and is the primary key for the table. The name is the unique key. Like the routes table, both the id and name cannot be null.

In generation 1, there are 165 different moves. The moves table is made up the move id, name, type, base damage, pp and description. The name, type, pp and id must have an input in order to be put into the table. Each move will vary in the base damage and pp (number of times the move can be used). The primary key for the table is the id. The unique key is the name and the

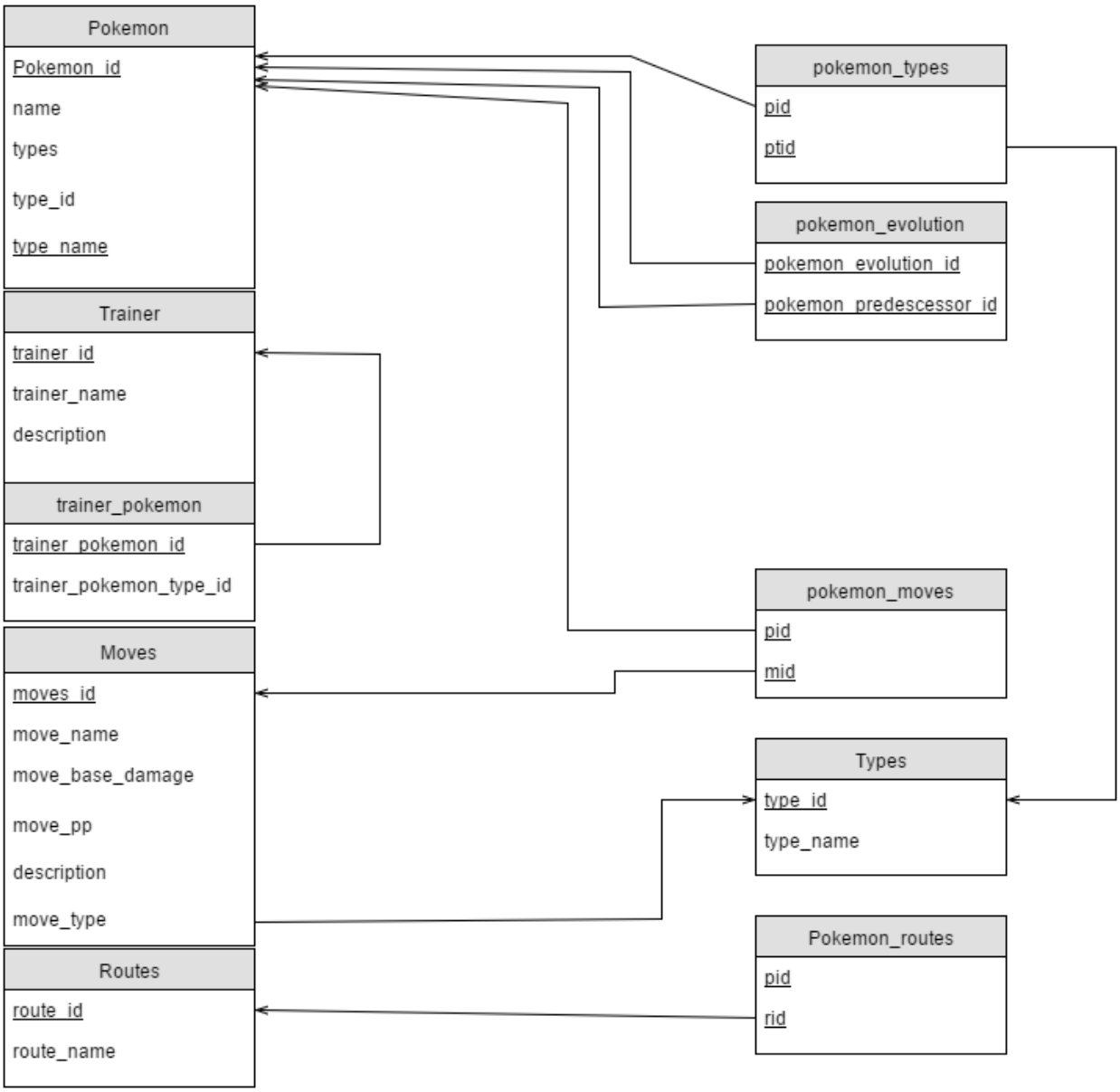
foreign key is the type. Generation 1 moves only had one type associated with each move so we followed the same pattern.

As mentioned in the moves and Pokémon table, some type will be associated with the table. The type table is made up of an auto-incrementing ID (primary key) and name (unique key). Since we are following the games original rule of setting one elemental type with a move, we will follow the many to one relationship between moves and types. As mentioned above each move has only one type but each type has many moves associated with it (except dragon because generation 1 only had on dragon move). A many-to-many relationship is seen between the Pokémon table and types table. In the example mentioned earlier, a Pokémon can be associated with different elemental types like Flying and Fire. Each type has many Pokémon associated with it. The Pokémon move table also shows a many to many relationship as well. There are many moves a Pokémon can learn and certain moves that can be learned by different Pokémon. The table is made up of two keys, the Pokémon id and move id. The primary key is a combination of both keys.

One of the interesting elements of Pokémon is evolution. In order to recreate this, an evolution id and predecessor id were created. The primary key for the table is a combination of the two and foreign keys are one for the evolution id and predecessor id that references the Pokémon table's id. This table will show a one to many relationship where a single Pokémon could have many predecessors.

The Pokémon routes table and trainer Pokémon type table both show many-to-many relationships. The routes table has the Pokémon id and routes id. The primary key is a combination of both IDs. Pokémon can be found in various parts of the Pokémon universe. There are few exceptions as there are a few Pokémon that are labeled as "legendary" so there is only one of them. Throughout the game, trainers typically dedicate their team to a specific type but there are some trainers that have Pokémon of multiple elemental types. A typical example is the bug catcher trainer. The bug catcher's team consists of Weedles which is a combination of bug/poison. This ends up being a many-to-many relationship. The table consists of the trainer id and type id.

ER Diagram



Database Schema

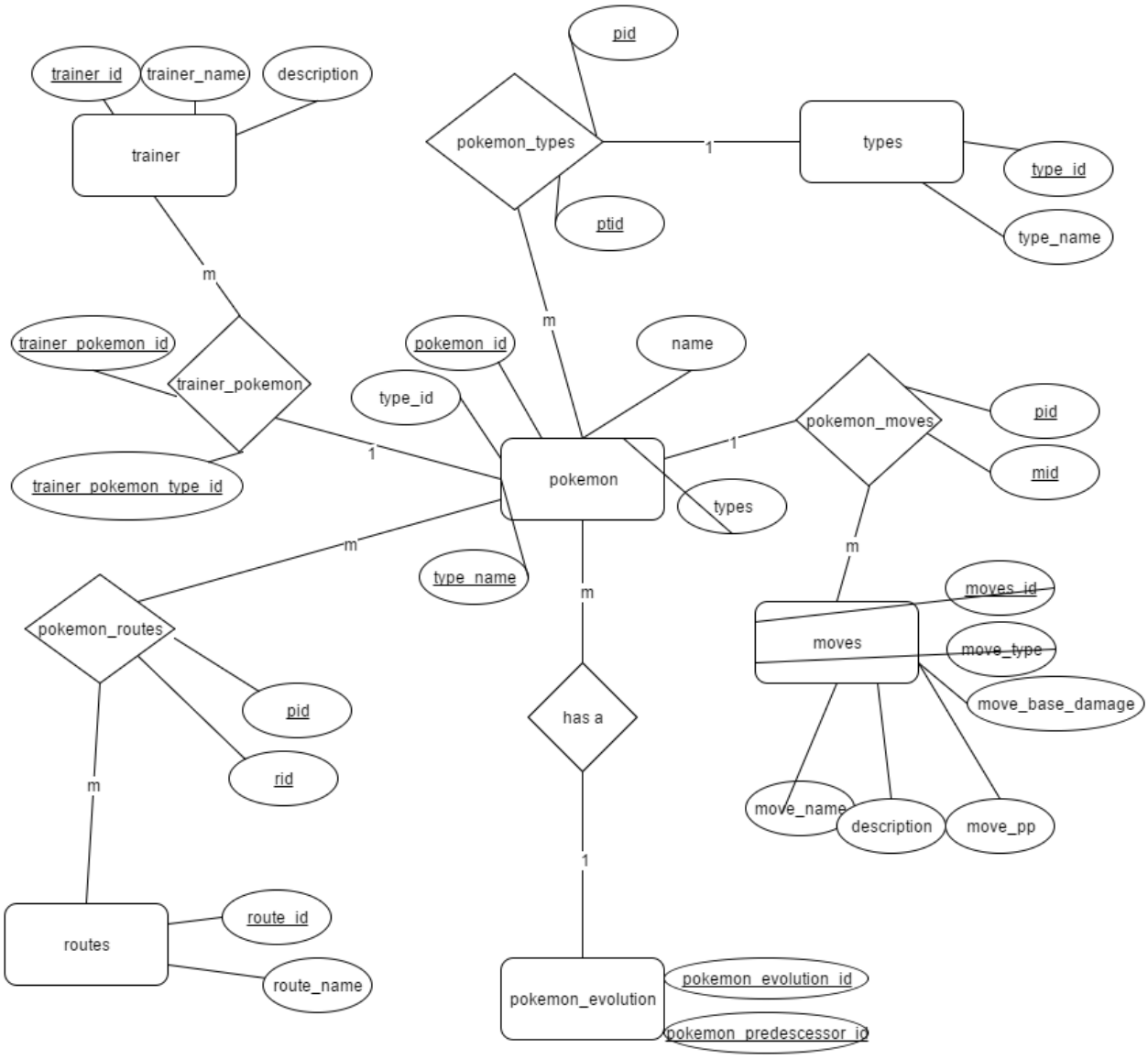


Table Creation Queries

DROP TABLE IF EXISTS `pokemon`;

DROP TABLE IF EXISTS `pokemon_types`;

DROP TABLE IF EXISTS `pokemon_evolutions`;

DROP TABLE IF EXISTS `pokemon_moves`;

DROP TABLE IF EXISTS `pokemon_routes`;

DROP TABLE IF EXISTS `trainer`;

DROP TABLE IF EXISTS `trainer_pokemon`;

DROP TABLE IF EXISTS `moves`;

```
DROP TABLE IF EXISTS `routes`;
DROP TABLE IF EXISTS `types`;

CREATE TABLE `pokemon`
(
	`pokemon_id` int(11) NOT NULL,
	`name` varchar(255) NOT NULL,
	`description` varchar(255),
	PRIMARY KEY (`pokemon_id`),
	UNIQUE KEY (`name`)
)ENGINE=InnoDB;

CREATE TABLE `types`
(
	`type_id` int(11) NOT NULL AUTO_INCREMENT,
	`type_name` varchar(255) NOT NULL,
	PRIMARY KEY (`type_id`),
	UNIQUE KEY(`type_name`)
)ENGINE=InnoDB;

CREATE TABLE `routes`
(
	`route_id` int(11) NOT NULL AUTO_INCREMENT,
	`route_name` varchar(255) NOT NULL,
	`description` varchar(255),
	PRIMARY KEY (`route_id`),
	UNIQUE KEY (`route_name`)
)ENGINE=InnoDB;

CREATE TABLE `trainer`
(
```

```
	`trainer_id` int(11) NOT NULL AUTO_INCREMENT,
	`trainer_name` varchar(255) NOT NULL,
	`description` varchar(255),
	PRIMARY KEY (`trainer_id`),
	UNIQUE KEY(`trainer_name`)
)ENGINE=InnoDB;

CREATE TABLE `moves`
(
	`move_id` int(11) NOT NULL AUTO_INCREMENT,
	`move_name` varchar(255) NOT NULL,
	`move_type` int(11) NOT NULL,
	`move_base_damage` int(11) DEFAULT NULL,
	`move_pp` int(11) NOT NULL,
	`description` varchar(255),
	PRIMARY KEY(`move_id`),
	UNIQUE KEY(`move_name`),
	FOREIGN KEY(`move_type`) REFERENCES `types`(`type_id`)
		ON DELETE CASCADE
		ON UPDATE CASCADE
)ENGINE=InnoDB;

CREATE TABLE `trainer_pokemon`
(
	`trainer_pokemon_id` int(11) NOT NULL,
	`trainer_pokemon_type_id` int(11) NOT NULL,
	PRIMARY KEY(`trainer_pokemon_id`,`trainer_pokemon_type_id`),
	FOREIGN KEY (`trainer_pokemon_id`) REFERENCES `trainer` (`trainer_id`)
		ON DELETE CASCADE
		ON UPDATE CASCADE,
```

```
	FOREIGN KEY(`trainer_pokemon_type_id`) REFERENCES `types` (`type_id`)
		ON DELETE CASCADE
		ON UPDATE CASCADE
)ENGINE=InnoDB;

CREATE TABLE `pokemon_routes`
(
	`pid` int(11) NOT NULL,
	`rid` int(11) NOT NULL,
	PRIMARY KEY (`pid`, `rid`),
	FOREIGN KEY (`pid`) REFERENCES `pokemon` (`pokemon_id`)
		ON DELETE CASCADE
		ON UPDATE CASCADE,
	FOREIGN KEY (`rid`) REFERENCES `routes` (`route_id`)
		ON DELETE CASCADE
		ON UPDATE CASCADE
)ENGINE=InnoDB;

CREATE TABLE `pokemon_moves`
(
	`pid` int(11) NOT NULL,
	`mid` int(11) NOT NULL,
	PRIMARY KEY (`pid`, `mid`),
	FOREIGN KEY (`pid`) REFERENCES `pokemon` (`pokemon_id`)
		ON DELETE CASCADE
		ON UPDATE CASCADE,
	FOREIGN KEY (`mid`) REFERENCES `moves` (`move_id`)
		ON DELETE CASCADE
		ON UPDATE CASCADE
)ENGINE=InnoDB;
```

```
CREATE TABLE `pokemon_evolutions`
(
	`pokemon_evolution_id` int(11) NOT NULL,
	`pokemon_predecessor_id` int(11) NOT NULL,
	PRIMARY KEY (`pokemon_evolution_id`, `pokemon_predecessor_id`),
	FOREIGN KEY (`pokemon_evolution_id`) REFERENCES `pokemon` (`pokemon_id`)
		ON DELETE CASCADE
		ON UPDATE CASCADE,
	FOREIGN KEY (`pokemon_predecessor_id`) REFERENCES `pokemon` (`pokemon_id`)
		ON DELETE CASCADE
		ON UPDATE CASCADE
)ENGINE=InnoDB;

CREATE TABLE `pokemon_types`
(
	`pid` int(11) NOT NULL,
	`ptid` int(11) NOT NULL,
	PRIMARY KEY (`pid`, `ptid`),
	FOREIGN KEY (`pid`) REFERENCES `pokemon` (`pokemon_id`)
		ON DELETE CASCADE
		ON UPDATE CASCADE,
	FOREIGN KEY (`ptid`) REFERENCES `types` (`type_id`)
		ON DELETE CASCADE
		ON UPDATE CASCADE
)ENGINE=InnoDB;

Populate Tables
--populate types table
INSERT INTO types (type_name) VALUES ("Normal");
INSERT INTO types (type_name) VALUES ("Fire");
```

```
INSERT INTO types (type_name) VALUES ("Water");

INSERT INTO types (type_name) VALUES ("Electric");

--populate pokemon

INSERT INTO pokemon (pokemon_id, name, description) VALUES (1, "Bulbasaur", "A strange seed was planted on its back at birth. This plant sprouts and grows with this Pokemon.");

INSERT INTO pokemon (pokemon_id, name, description) VALUES (2, "Ivysaur", "When the bulb on its back grows large, it appears to lose the ability to stand on its hind legs.");

INSERT INTO pokemon (pokemon_id, name, description) VALUES (3, "Venusaur", "The plant blooms when it is absorbing solar energy. It stays on the move to seek sunlight.");

INSERT INTO pokemon (pokemon_id, name, description) VALUES (4, "Charmander", "Obviously prefers hot places. When it rains, steam is said to spout from the top of its tail.");

INSERT INTO pokemon (pokemon_id, name, description) VALUES (5, "Charmeleon", "When it swings its burning tail, it elevates the temperature to unbearably high levels.");

INSERT INTO pokemon (pokemon_id, name, description) VALUES (6, "Charizard", "Spits fire that is hot enough to melt boulders. Known to cause forest fires unintentionally.");

INSERT INTO pokemon (pokemon_id, name, description) VALUES (7, "Squirtle", "After birth, its back swells and hardens into a shell. Powerfully sprays foam from its mouth.");

INSERT INTO pokemon (pokemon_id, name, description) VALUES (8, "Wartortle", "Often hides in water to stalk unwary prey. For swimming fast, it moves its ears to maintain balance.");

INSERT INTO pokemon (pokemon_id, name, description) VALUES (9, "Blastoise", "A brutal Pokemon with pressurized water jets on its shell. They are used for high speed tackles.");

INSERT INTO pokemon (pokemon_id, name, description) VALUES (10, "Caterpie", "Its short feet are tipped with suction pads that enable it to tirelessly climb slopes and walls.");

INSERT INTO pokemon (pokemon_id, name, description) VALUES (11, "Metapod", "This Pokemon is vulnerable to attack while its shell is soft, exposing its weak and tender body.");

INSERT INTO pokemon (pokemon_id, name, description) VALUES (12, "Butterfree", "In battle, it flaps its wings at high speed to release highly toxic dust into the air.");

INSERT INTO pokemon (pokemon_id, name, description) VALUES (13, "Weedle", "Often found in forests, eating leaves. It has a sharp venomous stinger on its head.");

INSERT INTO pokemon (pokemon_id, name, description) VALUES (14, "Kakuna", "Almost incapable of moving, this Pokemon can only harden its shell to protect itself from predators.");

INSERT INTO pokemon (pokemon_id, name, description) VALUES (15, "Beedrill", "Flies at high speed and attacks using its large venomous stingers on its forelegs and tail.");

INSERT INTO pokemon (pokemon_id, name, description) VALUES (16, "Pidgey", "A common sight in forests and woods. It flaps its wings at ground level to kick up blinding sand.");
```

-- populating `routes`

INSERT INTO routes (route_name, description) VALUES ("Pallet Town", "A fairly new and quiet town. It's a small and pretty place.");

INSERT INTO routes (route_name, description) VALUES ("Route 1", "A country road full of greenery and rough paths.");

INSERT INTO routes (route_name, description) VALUES ("Viridian City", "A beautiful city that is enveloped in green year-round.");

INSERT INTO routes (route_name, description) VALUES ("Route 2", "A path that winds and bends from the forest's entrance.");

INSERT INTO routes (route_name, description) VALUES ("Pewter City", "A quiet city nestled between rugged mountains and rocks.");

INSERT INTO routes (route_name, description) VALUES ("Route 3", "A road where many rocks have fallen from the sky to create craters.");

INSERT INTO routes (route_name, description) VALUES ("Route 4", "Route 4 is a route in northern Kanto connecting Route 3 and Mt. Moon to Cerulean City.");

INSERT INTO routes (route_name, description) VALUES ("Viridian Forest", "The deep and sprawling forest is said to be a natural maze as many people get lost inside.");

-- Populating `moves`

INSERT INTO moves (move_name, move_type, move_base_damage, move_pp, description) VALUES ("Tackle", (SELECT type_id FROM `types` WHERE type_name = "Normal"), 50, 35, "Basic attack.");

INSERT INTO moves (move_name, move_type, move_base_damage, move_pp, description) VALUES ("Body Slam", (SELECT type_id FROM `types` WHERE type_name = "Normal"), 85, 15, "May paralyze opponent");

INSERT INTO moves (move_name, move_type, move_base_damage, move_pp, description) VALUES ("Razer Leaf", (SELECT type_id FROM `types` WHERE type_name = "Grass"), 55, 25, "High critical hit ratio.");

INSERT INTO moves (move_name, move_type, move_base_damage, move_pp, description) VALUES ("Rock Sride", (SELECT type_id FROM `types` WHERE type_name = "Rock"), 75, 10, "May cause flinching");

INSERT INTO moves (move_name, move_type, move_base_damage, move_pp, description) VALUES ("Flamethrower", (SELECT type_id FROM `types` WHERE type_name = "Fire"), 90, 15, "May burn opponent.");

INSERT INTO moves (move_name, move_type, move_base_damage, move_pp, description) VALUES ("Gust", (SELECT type_id FROM `types` WHERE type_name = "Flying"), 40, 35, "Hits Pokémon using Fly/Bounce with double power.");

```
INSERT INTO moves (move_name, move_type, move_base_damage, move_pp, description) VALUES ("Bubble", (SELECT type_id FROM `types` WHERE type_name = "Water"), 20, 30, "10% chance to lower the target's Speed by one stage.");

INSERT INTO moves (move_name, move_type, move_base_damage, move_pp, description) VALUES ("Blizzard", (SELECT type_id FROM `types` WHERE type_name = "Ice"), 110, 5, "May freeze opponent.");


-- 	populating `trainers`

INSERT INTO trainer(trainer_name, description) VALUES ("Bug Catcher", "Young children in hats carrying nets.");

INSERT INTO trainer(trainer_name, description) VALUES ("Lass", "Young girls in school uniforms.");

INSERT INTO trainer (trainer_name, description) VALUES ("Youngster", "Young boys wearing caps and shorts.");

INSERT INTO trainer(trainer_name, description) VALUES ("Blackbelt", "They are young men wearing a karate uniform while striking a battle pose.");

-- 	Populating `trainer_pokemon`


INSERT INTO trainer_pokemon (trainer_pokemon_id, trainer_pokemon_type_id) VALUES ((SELECT trainer_id FROM trainer WHERE trainer_name = "Bug Catcher"), (SELECT type_id FROM types WHERE type_name = "Bug"));

INSERT INTO trainer_pokemon (trainer_pokemon_id, trainer_pokemon_type_id) VALUES ((SELECT trainer_id FROM trainer WHERE trainer_name = "Bug Catcher"), (SELECT type_id FROM types WHERE type_name = "Poison"));

INSERT INTO trainer_pokemon (trainer_pokemon_id, trainer_pokemon_type_id) VALUES ((SELECT trainer_id FROM trainer WHERE trainer_name = "Blackbelt"), (SELECT type_id FROM types WHERE type_name = "Fighting"));

-- 	Prepopulating `pokemon_routes`


INSERT INTO pokemon_routes (pid, rid) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Caterpie"), (SELECT route_id FROM routes WHERE route_name = "Viridian Forest"));

INSERT INTO pokemon_routes (pid, rid) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Weedle"), (SELECT route_id FROM routes WHERE route_name = "Route 2"));

INSERT INTO pokemon_routes (pid, rid) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Weedle"), (SELECT route_id FROM routes WHERE route_name = "Viridian Forest"));
```

```
INSERT INTO pokemon_routes (pid, rid) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Pidgey"), (SELECT route_id FROM routes WHERE route_name = "Route 1"));

INSERT INTO pokemon_routes (pid, rid) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Pidgey"), (SELECT route_id FROM routes WHERE route_name = "Route 2"));

INSERT INTO pokemon_routes (pid, rid) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Pidgey"), (SELECT route_id FROM routes WHERE route_name = "Route 3"));

INSERT INTO pokemon_routes (pid, rid) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Metapod"), (SELECT route_id FROM routes WHERE route_name = "Viridian Forest"));

INSERT INTO pokemon_routes (pid, rid) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Kakuna"), (SELECT route_id FROM routes WHERE route_name = "Viridian Forest"));

--      populate `pokemon_moves`


INSERT INTO pokemon_moves (mid, pid) VALUES ((SELECT move_id FROM moves WHERE move_name = "Body Slam"), (SELECT pokemon_id FROM pokemon WHERE name = "Bulbasaur"));

INSERT INTO pokemon_moves (mid, pid) VALUES ((SELECT move_id FROM moves WHERE move_name = "Tackle"), (SELECT pokemon_id FROM pokemon WHERE name = "Bulbasaur"));

INSERT INTO pokemon_moves (mid, pid) VALUES ((SELECT move_id FROM moves WHERE move_name = "Razer Leaf"), (SELECT pokemon_id FROM pokemon WHERE name = "Bulbasaur"));

INSERT INTO pokemon_moves (mid, pid) VALUES ((SELECT move_id FROM moves WHERE move_name = "Flamethrower"), (SELECT pokemon_id FROM pokemon WHERE name = "Charmander"));

INSERT INTO pokemon_moves (mid, pid) VALUES ((SELECT move_id FROM moves WHERE move_name = "Body slam"), (SELECT pokemon_id FROM pokemon WHERE name = "Charmander"));

INSERT INTO pokemon_moves (mid, pid) VALUES ((SELECT move_id FROM moves WHERE move_name = "Tackle"), (SELECT pokemon_id FROM pokemon WHERE name = "Charmander"));

INSERT INTO pokemon_moves (mid, pid) VALUES ((SELECT move_id FROM moves WHERE move_name = "Tackle"), (SELECT pokemon_id FROM pokemon WHERE name = "Squirtle"));

INSERT INTO pokemon_moves (mid, pid) VALUES ((SELECT move_id FROM moves WHERE move_name = "Body Slam"), (SELECT pokemon_id FROM pokemon WHERE name = "Squirtle"));
```

INSERT INTO pokemon_moves (mid, pid) VALUES ((SELECT move_id FROM moves WHERE move_name = "Bubble"), (SELECT pokemon_id FROM pokemon WHERE name = "Squirtle"));

INSERT INTO pokemon_moves (mid, pid) VALUES ((SELECT move_id FROM moves WHERE move_name = "Tackle"), (SELECT pokemon_id FROM pokemon WHERE name = "Caterpie"));

INSERT INTO pokemon_moves (mid, pid) VALUES ((SELECT move_id FROM moves WHERE move_name = "Tackle"), (SELECT pokemon_id FROM pokemon WHERE name = "Metapod"));

INSERT INTO pokemon_moves (mid, pid) VALUES ((SELECT move_id FROM moves WHERE move_name = "Tackle"), (SELECT pokemon_id FROM pokemon WHERE name = "Kakuna"));

INSERT INTO pokemon_moves (mid, pid) VALUES ((SELECT move_id FROM moves WHERE move_name = "Twineedle"), (SELECT pokemon_id FROM pokemon WHERE name = "Kakuna"));

INSERT INTO pokemon_moves (mid, pid) VALUES ((SELECT move_id FROM moves WHERE move_name = "Gust"), (SELECT pokemon_id FROM pokemon WHERE name =

-- populate `pokemon_evolution`

INSERT INTO pokemon_evolutions (pokemon_evolution_id, pokemon_predecessor_id) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Ivysaur"), (SELECT pokemon_id FROM pokemon WHERE name = "Bulbasaur"));

INSERT INTO pokemon_evolutions (pokemon_evolution_id, pokemon_predecessor_id) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Venusaur"), (SELECT pokemon_id FROM pokemon WHERE name = "Ivysaur"));

INSERT INTO pokemon_evolutions (pokemon_evolution_id, pokemon_predecessor_id) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Charmeleon"), (SELECT pokemon_id FROM pokemon WHERE name = "Charmander"));

INSERT INTO pokemon_evolutions (pokemon_evolution_id, pokemon_predecessor_id) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Charizard"), (SELECT pokemon_id FROM pokemon WHERE name = "Charmeleon"));

INSERT INTO pokemon_evolutions (pokemon_evolution_id, pokemon_predecessor_id) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Wartortle"), (SELECT pokemon_id FROM pokemon WHERE name = "Squirtle"));

INSERT INTO pokemon_evolutions (pokemon_evolution_id, pokemon_predecessor_id) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Blastoise"), (SELECT pokemon_id FROM pokemon WHERE name = "Wartortle"));

INSERT INTO pokemon_evolutions (pokemon_evolution_id, pokemon_predecessor_id) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Metapod"), (SELECT pokemon_id FROM pokemon WHERE name = "Caterpie"));

INSERT INTO pokemon_evolutions (pokemon_evolution_id, pokemon_predecessor_id) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Butterfree"), (SELECT pokemon_id FROM pokemon WHERE name = "Metapod"));

INSERT INTO pokemon_evolutions (pokemon_evolution_id, pokemon_predecessor_id) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Kakuna"), (SELECT pokemon_id FROM pokemon WHERE name = "Weedle"));

INSERT INTO pokemon_evolutions (pokemon_evolution_id, pokemon_predecessor_id) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Beedrill"), (SELECT pokemon_id FROM pokemon WHERE name = "Kakuna"));

-- populate `pokemon_types`

INSERT INTO pokemon_types (pid, ptid) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Charmander"), (SELECT type_id FROM types WHERE type_name = "Fire"));

INSERT INTO pokemon_types (pid, ptid) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Charmeleon"), (SELECT type_id FROM types WHERE type_name = "Fire"));

INSERT INTO pokemon_types (pid, ptid) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Charizard"), (SELECT type_id FROM types WHERE type_name = "Fire"));

INSERT INTO pokemon_types (pid, ptid) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Squirtle"), (SELECT type_id FROM types WHERE type_name = "Water"));

INSERT INTO pokemon_types (pid, ptid) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Wartortle"), (SELECT type_id FROM types WHERE type_name = "Water"));

INSERT INTO pokemon_types (pid, ptid) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Blastoise"), (SELECT type_id FROM types WHERE type_name = "Water"));

INSERT INTO pokemon_types (pid, ptid) VALUES ((SELECT pokemon_id FROM pokemon WHERE name = "Pidgey"), (SELECT type_id FROM types WHERE type_name = "Normal"));

General Use Queries

SELECT

We have six select queries that will be used to gather information about a Pokémon. The queries will allow a user to get the number, name, description, moves (names of the moves), types and evolution of the Pokémon.

```
SELECT p.pokemon_id FROM pokemon p
WHERE p.name = [name_input];

SELECT p.name FROM pokemon p
WHERE p.name = [name_input];
```

```
SELECT p.description FROM pokemon p
WHERE p.name = [name_input];

SELECT m.move_name FROM moves m
INNER JOIN pokemon_moves pm ON pm.mid = m.move_id
INNER JOIN pokemon p ON p.pokemon_id = pm.pid
WHERE p.name= [name_input];

SELECT t.type_name FROM types t
INNER JOIN pokemon_types pt ON pt.ptid = t.type_id
INNER JOIN pokemon p ON p.pokemon_id = pt.ptid
WHERE p.name= [name_input];

SELECT p.name FROM pokemon p
INNER JOIN pokemon_ evolutions pe ON pe. pokemon_predecessor_id = p.pokemon_id
INNER JOIN pokemon p_evo ON p_evo.pokemon_id = pe. pokemon_evolution_id
WHERE p_evo.name= [name_input];
```

INSERT

We have 10 inserts for the pokédex. One is to insert basic information for the Pokémon like its name, id number and description of the Pokémon. The second one allows you to add its evolution and previous state as well. The third one allows you to insert the types for the Pokémon. The fourth one allows you to insert new moves and the information for the move. The fifth insert allows the user to input routes into their pokédex. The sixth, seventh, and eighth insert allows the user to insert the type, moves and route for the Pokémon of their choice. The ninth and tenth insert inputs information related to the random trainers in the Pokémon world.

```
INSERT INTO pokemon (pokemon_id,name,description)
VALUES ([id_input],[name_input], [description_input]);

INSERT INTO pokemon_evolutions(pokemon_evolution_id, pokemon_predecessor_id)
VALUES ((SELECT p.pokemon_id FROM pokemon p WHERE
p.name=[evo_name]),  (SELECT p.pokemon_id FROM pokemon p WHERE
p.name=[pred_name]);

INSERT INTO pokemon_type(pid,ptid)
VALUES ((SELECT p.pokemon_id FROM pokemon p WHERE p.name=[pokemon_name]),
(SELECT t.type_id FROM types WHERE t.type_name=[type_name]));

INSERT INTO moves(move_name, move_type, move_base_damage, move_pp, description)
VALUES ([move name], (SELECT t.type_id FROM types t WHERE
t.type_name=[type_name]),[move_base_damage], [move_pp], [description]);

INSERT INTO routes(route_name, description)
VALUES ([route_name], [description] );

INSERT INTO pokemon_type(pid,ptid)
VALUES ((SELECT p.pokemon_id FROM pokemon p WHERE p.name=[pokemon_name]),
(SELECT t.type_id FROM types WHERE t.type_name=[type name]));
```

INSERT INTO pokemon_moves(mid,pid)
VALUES ((SELECT m.move_id FROM moves m WHERE m.move_name=[move_name]),
(SELECT p.pokemon_id FROM pokemon p WHERE p.pokemon_name=[pokemon_name)));

INSERT INTO pokemon_routes(pid,rid)
VALUES ((SELECT p.pokemon_id FROM pokemon p WHERE p.pokemon_name=[p_name]),
(SELECT r.route_id FROM route r WHERE r.route_name=[route_name]));

INSERT INTO trainer (trainer_name, description)
VALUES ([trainer_name],[description]);

INSERT INTO trainer_pokemon (trainer_pokemon_id, trainer_pokemon_type_id)
VALUES ((SELECT t.trainer_id FROM trainer t WHERE t.trainer_name=[t_name]),
(SELECT t.type_id FROM type t WHERE t.type_name=[type_name));

DELETE

We added some very basic deletes for our pokédex. We allow the user to delete the pokemon, type, move and route.

DELETE FROM pokemon p WHERE p.pokemon_name=[pokemon_name];

DELETE FROM types t WHERE t.type_name=[type_name];

DELETE FROM moves m WHERE m.move_name=[move_name];

DELETE FROM routes r WHERE r.route_name=[route_name];