

CPSC 304 Project Cover Page

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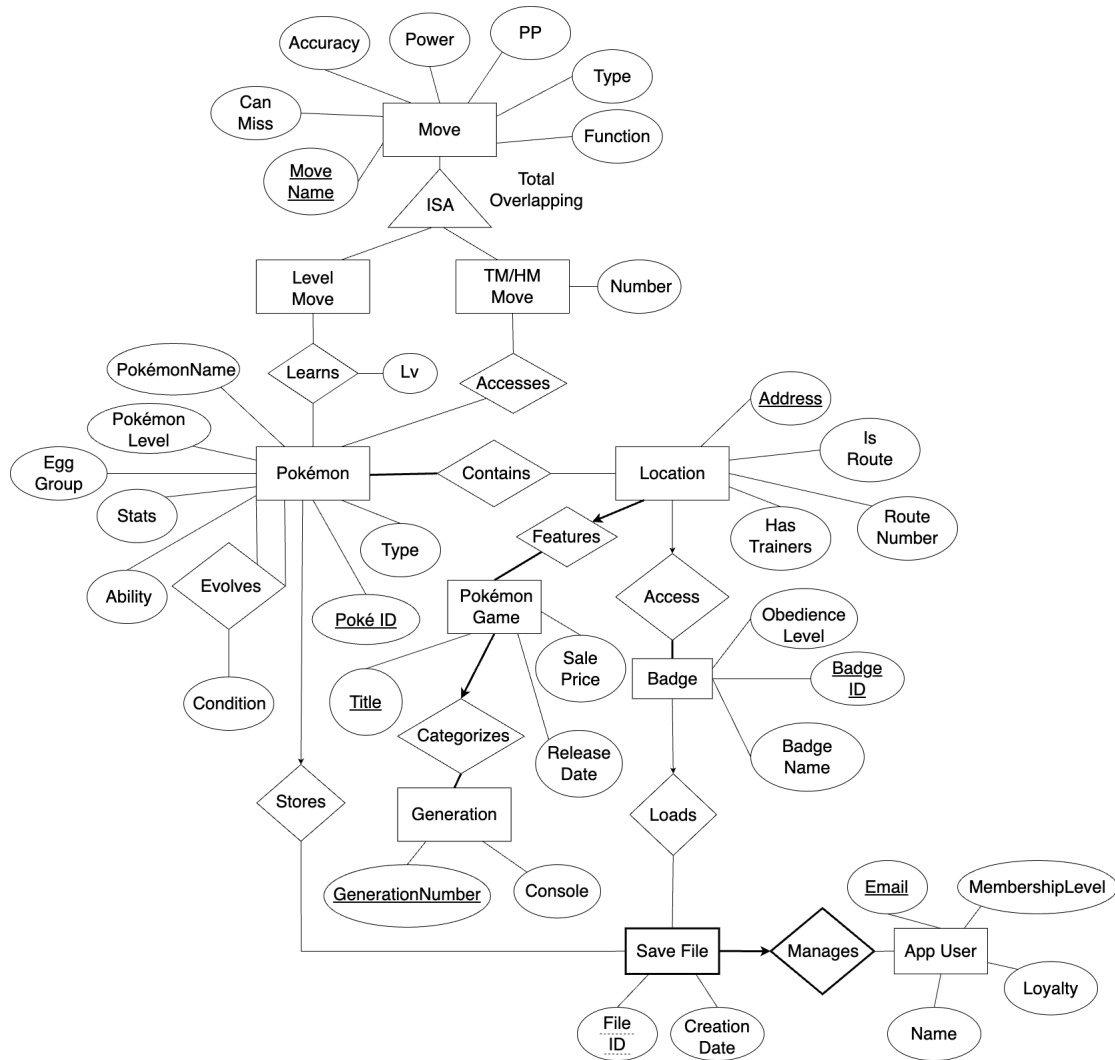
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By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.)

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia.

1 Project Description

The final updated ER diagram is presented below,



Our completed application: *Pokédex Master*, is a one-stop-shop that provides everyone one would need for their Pokemon play-through. It is a full-stack web application developed with an intuitive Vite-React-Typescript frontend, a RESTful Django backend, and a MySQL database powered by AWS RDS. Our application allows users to sign up, and to track added save files on their account. In terms of helping them through their play-throughs, our application allows for a diverse range of queries regarding Pokemon, in-game locations, game-specific information, and moves that their Pokemon might use. This combined functionality empowers our users with the ability to make informed decisions towards building their team, and ultimately results in the best experience possible for the end-user on their Pokemon play-throughs.

2 Final Schema Discussion

There are a few main things that differ between the final schema, and the previous iteration.

1. *Interactions regarding Move and Pokemon.* There was a lot of bloat and redundancy regarding the children of the ISA relationship for Move previously. This resulted in not only an increasingly difficult schema to maintain, but also one that did not make much sense in the context of our application. As such, the following changes were made to the schema,
 - (a) Removed relations regarding EggMove, TutorMove, Parent, Uses, and Teaches.
 - (b) Changed the ISA constraint to partial overlapping
 - (c) Added a new relation to connect Pokemon and LevelMove: Learns
 - (d) Added a new relation to connect Pokemon and TMHMMove: Accesses
2. *AppUser attributes.* Due to the constraints of the project, and in order to have an UPDATE query that make sense in the scope of our project, we changed some of the attributes of the AppUser1 relation. The following changes were made,
 - (a) Removed DateJoined attribute because changing this attribute would not make sense in the context of the application
 - (b) Replaced DateJoined with MembershipLevel in all instances, so Loyalty now relies on MembershipLevel. MembershipLevel is related to how much a user has donated to the website's operational costs

3 Schema and Data

1. AppUser2(MembershipLevel, Loyalty)

MembershipLevel	Loyalty
1	100
2	200
3	300
4	400
5	500

2. AppUser1(Email, Username, MembershipLevel)

Email	Username	MembershipLevel
amanprakashburnett@gmail.com	aman	1
billjones.com.com@gmail.com	matthew3	1
matthewasmith442@gmail.com	matthew	1
test@gmail.com	first-account	1
xx442boyxx@gmail.com	matthew2	1

3. SaveFileManages(FileID, CreationDate, **Email**)

FileID	CreationDate	Email
0	2024-03-01	amanprakashburnett@gmail.com
0	2024-03-01	matthewasmith442@gmail.com
1	2024-03-02	amanprakashburnett@gmail.com
1	2024-03-02	matthewasmith442@gmail.com
2	2024-03-03	matthewasmith442@gmail.com

4. Move2(Func, CanMiss)

Func	CanMiss
PHYSICAL	1
SPECIAL	1
STATUS	0

5. Move1(Accuracy, Power, MoveType, **Func**, MoveName)

Accuracy	Power	MoveType	Func	MoveName
100	20	Grass	SPECIAL	Absorb
100	40	Poison	PHYSICAL	Acid
-1	-1	Poison	STATUS	"Acid Armor"
-1	-1	Psychic	STATUS	Agility
-1	-1	Psychic	STATUS	Amnesia
100	65	Ice	SPECIAL	"Aurora Beam"
85	15	Normal	PHYSICAL	Barrage
-1	-1	Psychic	STATUS	Barrier
-1	-1	Normal	PHYSICAL	Bide
75	15	Normal	PHYSICAL	Bind
100	60	Normal	PHYSICAL	Bite
90	120	Ice	SPECIAL	Blizzard
100	85	Normal	PHYSICAL	"Body Slam"
85	65	Ground	PHYSICAL	"Bone Club"
90	50	Ground	PHYSICAL	Bonemerang
100	20	Water	SPECIAL	Bubble
100	65	Water	SPECIAL	BubbleBeam
75	35	Water	SPECIAL	Clamp
85	18	Normal	PHYSICAL	"Comet Punch"
100	-1	Ghost	STATUS	"Confuse Ray"
100	50	Psychic	SPECIAL	Confusion
100	10	Normal	PHYSICAL	Constrict
-1	-1	Normal	STATUS	Conversion
100	-1	Fighting	PHYSICAL	Counter
85	90	Water	SPECIAL	Crabhammer

95	50	Normal	PHYSICAL	Cut
-1	-1	Normal	STATUS	"Defense Curl"
100	100	Ground	PHYSICAL	Dig
55	-1	Normal	STATUS	Disable
100	70	Normal	PHYSICAL	"Dizzy Punch"
100	30	Fighting	PHYSICAL	"Double Kick"
-1	-1	Normal	STATUS	"Double Team"
100	100	Normal	PHYSICAL	Double-Edge
85	15	Normal	PHYSICAL	DoubleSlap
100	-1	Dragon	SPECIAL	"Dragon Rage"
100	100	Psychic	SPECIAL	"Dream Eater"
100	80	Flying	PHYSICAL	"Drill Peck"
100	100	Ground	PHYSICAL	Earthquake
75	100	Normal	PHYSICAL	"Egg Bomb"
100	40	Fire	SPECIAL	Ember
100	170	Normal	PHYSICAL	Explosion
85	120	Fire	SPECIAL	"Fire Blast"
100	75	Fire	SPECIAL	"Fire Punch"
70	15	Fire	SPECIAL	"Fire Spin"
30	-1	Ground	PHYSICAL	Fissure
100	95	Fire	SPECIAL	Flamethrower
70	-1	Normal	STATUS	Flash
95	70	Flying	PHYSICAL	Fly
-1	-1	Normal	STATUS	"Focus Energy"
85	15	Normal	PHYSICAL	"Fury Attack"
80	18	Normal	PHYSICAL	"Fury Swipes"
75	-1	Normal	STATUS	Glare
100	-1	Normal	STATUS	Growl
-1	-1	Normal	STATUS	Growth
30	-1	Normal	PHYSICAL	Guillotine
100	40	Normal	PHYSICAL	Gust
-1	-1	Normal	STATUS	Harden
-1	-1	Ice	STATUS	Haze
100	70	Normal	PHYSICAL	Headbutt
90	85	Fighting	PHYSICAL	"Hi Jump Kick"
100	65	Normal	PHYSICAL	"Horn Attack"
30	-1	Normal	PHYSICAL	"Horn Drill"
80	120	Water	SPECIAL	"Hydro Pump"
90	150	Normal	PHYSICAL	"Hyper Beam"
90	80	Normal	PHYSICAL	"Hyper Fang"
60	-1	Psychic	STATUS	Hypnosis
100	95	Ice	SPECIAL	"Ice Beam"

100	75	Ice	SPECIAL	"Ice Punch"
95	70	Fighting	PHYSICAL	"Jump Kick"
100	50	Normal	PHYSICAL	"Karate Chop"
100	20	Bug	PHYSICAL	"Leech Life"
90	-1	Grass	STATUS	"Leech Seed"
100	-1	Normal	STATUS	Leer
100	20	Ghost	PHYSICAL	Lick
-1	-1	Psychic	STATUS	"Light Screen"
75	-1	Normal	STATUS	"Lovely Kiss"
90	50	Fighting	PHYSICAL	"Low Kick"
-1	-1	Psychic	STATUS	Meditate
100	40	Grass	SPECIAL	"Mega Drain"
75	120	Normal	PHYSICAL	"Mega Kick"
85	80	Normal	PHYSICAL	"Mega Punch"
-1	-1	Normal	STATUS	Metronome
100	-1	Normal	STATUS	Mimic
-1	-1	Normal	STATUS	Minimize
-1	-1	Flying	STATUS	"Mirror Move"
-1	-1	Ice	STATUS	Mist
100	-1	Ghost	PHYSICAL	"Night Shade"
100	40	Normal	PHYSICAL	"Pay Day"
100	35	Flying	PHYSICAL	Peck
100	70	Grass	SPECIAL	"Petal Dance"
85	14	Bug	PHYSICAL	"Pin Missile"
55	-1	Poison	STATUS	"Poison Gas"
100	15	Poison	PHYSICAL	"Poison Sting"
75	-1	Poison	STATUS	PoisonPowder
100	40	Normal	PHYSICAL	Pound
100	65	Psychic	SPECIAL	Psybeam
100	90	Psychic	SPECIAL	Psychic
80	-1	Psychic	SPECIAL	Psywave
100	40	Normal	PHYSICAL	"Quick Attack"
100	20	Normal	PHYSICAL	Rage
95	55	Grass	SPECIAL	"Razor Leaf"
75	80	Normal	PHYSICAL	"Razor Wind"
-1	-1	Normal	STATUS	Recover
-1	-1	Psychic	STATUS	Reflect
-1	-1	Psychic	STATUS	Rest
100	-1	Normal	STATUS	Roar
90	75	Rock	PHYSICAL	"Rock Slide"
65	50	Rock	PHYSICAL	"Rock Throw"
85	60	Fighting	PHYSICAL	"Rolling Kick"

100	-1	Normal	STATUS	Sand-Attack
100	40	Normal	PHYSICAL	Scratch
85	-1	Normal	STATUS	Screech
100	-1	Fighting	PHYSICAL	"Seismic Toss"
100	130	Normal	PHYSICAL	Selfdestruct
-1	-1	Normal	STATUS	Sharpen
55	-1	Normal	STATUS	Sing
100	100	Normal	PHYSICAL	"Skull Bash"
90	140	Flying	PHYSICAL	"Sky Attack"
75	80	Normal	PHYSICAL	Slam
100	70	Normal	PHYSICAL	Slash
75	-1	Grass	STATUS	"Sleep Powder"
100	65	Poison	PHYSICAL	Sludge
70	20	Poison	PHYSICAL	Smog
100	-1	Normal	STATUS	SmokeScreen
-1	-1	Normal	STATUS	Softboiled
100	120	Grass	SPECIAL	SolarBeam
90	-1	Normal	PHYSICAL	SonicBoom
100	20	Normal	PHYSICAL	"Spike Cannon"
-1	-1	Normal	STATUS	Splash
100	-1	Grass	STATUS	Spore
100	65	Normal	PHYSICAL	Stomp
100	80	Normal	PHYSICAL	Strength
95	-1	Bug	STATUS	"String Shot"
75	-1	Grass	STATUS	"Stun Spore"
80	80	Fighting	PHYSICAL	Submission
-1	-1	Normal	STATUS	Substitute
90	-1	Normal	PHYSICAL	"Super Fang"
55	-1	Normal	STATUS	Supersonic
100	95	Water	SPECIAL	Surf
100	60	Normal	PHYSICAL	Swift
-1	-1	Normal	STATUS	"Swords Dance"
95	35	Normal	PHYSICAL	Tackle
100	-1	Normal	STATUS	"Tail Whip"
85	90	Normal	PHYSICAL	"Take Down"
-1	-1	Psychic	STATUS	Teleport
100	90	Normal	PHYSICAL	Thrash
70	120	Electric	SPECIAL	Thunder
100	-1	Electric	STATUS	"Thunder Wave"
100	95	Electric	SPECIAL	Thunderbolt
100	75	Electric	SPECIAL	ThunderPunch
100	40	Electric	SPECIAL	ThunderShock

85	-1	Poison	STATUS	Toxic
-1	-1	Normal	STATUS	Transform
100	80	Normal	PHYSICAL	"Tri Attack"
100	25	Bug	PHYSICAL	Twineedle
100	55	Normal	PHYSICAL	ViceGrip
100	35	Grass	SPECIAL	"Vine Whip"
100	40	Water	SPECIAL	"Water Gun"
100	80	Water	SPECIAL	Waterfall
85	-1	Normal	STATUS	Whirlwind
100	35	Flying	PHYSICAL	"Wing Attack"
-1	-1	Water	STATUS	Withdraw
85	15	Normal	PHYSICAL	Wrap

6. LevelMove(MoveName)

MoveName
Absorb
Acid
"Acid Armor"
Agility
Amnesia
"Aurora Beam"
Barrage
Barrier
Bind
Bite
Blizzard
"Body Slam"
"Bone Club"
Bonemerang
Bubble
Clamp
"Comet Punch"
"Confuse Ray"
Confusion
Constrict
Conversion
Counter
Crabhammer
"Defense Curl"
Dig
Disable

"Dizzy Punch"
"Double Kick"
"Double Team"
Double-Edge
DoubleSlap
"Dragon Rage"
"Dream Eater"
"Drill Peck"
Earthquake
Ember
Explosion
"Fire Punch"
"Fire Spin"
Flamethrower
"Focus Energy"
"Fury Attack"
"Fury Swipes"
Glare
Growl
Growth
Guillotine
Gust
Harden
Haze
Headbutt
"Hi Jump Kick"
"Horn Attack"
"Horn Drill"
"Hydro Pump"
"Hyper Beam"
"Hyper Fang"
Hypnosis
"Ice Beam"
"Ice Punch"
"Jump Kick"
"Karate Chop"
"Leech Life"
"Leech Seed"
Leer
Lick
"Light Screen"
"Lovely Kiss"

"Low Kick"
Meditate
"Mega Kick"
"Mega Punch"
Metronome
Minimize
"Mirror Move"
Mist
"Night Shade"
"Pay Day"
Peck
"Petal Dance"
"Pin Missile"
"Poison Gas"
"Poison Sting"
PoisonPowder
Pound
Psybeam
Psychic
"Quick Attack"
Rage
"Razor Leaf"
Recover
Reflect
Rest
Roar
"Rock Throw"
"Rolling Kick"
Sand-Attack
Scratch
Screech
"Seismic Toss"
Selfdestruct
Sharpen
Sing
"Skull Bash"
"Sky Attack"
Slam
Slash
"Sleep Powder"
Sludge
Smog

SmokeScreen
SolarBeam
SonicBoom
"Spike Cannon"
Splash
Spore
Stomp
"String Shot"
"Stun Spore"
Submission
Substitute
"Super Fang"
Supersonic
Swift
"Swords Dance"
Tackle
"Tail Whip"
"Take Down"
Teleport
Thrash
Thunder
"Thunder Wave"
ThunderPunch
ThunderShock
Transform
"Tri Attack"
Twineedle
ViceGrip
"Vine Whip"
"Water Gun"
Waterfall
Whirlwind
"Wing Attack"
Withdraw
Wrap

7. TMHMMove(MoveName, MoveNumber)

MoveName	MoveNumber
Bide	34
Blizzard	14
"Body Slam"	8

BubbleBeam	11
Counter	18
Cut	1
Dig	28
"Double Team"	32
Double-Edge	10
"Dragon Rage"	23
"Dream Eater"	42
Earthquake	26
"Egg Bomb"	37
Explosion	47
"Fire Blast"	38
Fissure	27
Flash	5
Fly	2
"Horn Drill"	7
"Hyper Beam"	15
"Ice Beam"	13
"Mega Drain"	21
"Mega Kick"	5
"Mega Punch"	1
Metronome	35
Mimic	31
"Pay Day"	16
Psychic	29
Psywave	46
Rage	20
"Razor Wind"	2
Reflect	33
Rest	44
"Rock Slide"	48
"Seismic Toss"	19
Selfdestruct	36
"Skull Bash"	40
"Sky Attack"	43
Softboiled	41
SolarBeam	22
Strength	4
Submission	17
Substitute	50
Surf	3
Swift	39

"Swords Dance"	3
"Take Down"	9
Teleport	30
Thunder	25
"Thunder Wave"	45
Thunderbolt	24
Toxic	6
"Tri Attack"	49
"Water Gun"	12
Whirlwind	4

8. `PokemonStores2(PokemonName, PokeType, EggGroup)`

PokemonName	PokeType	EggGroup
Abra	Psychic	Human-Like
Aerodactyl	Rock/Flying	Flying
Alakazam	Psychic	Human-Like
Arbok	Poison	Dragon/Field
Arcanine	Fire	Field
Articuno	Ice/Flying	Undiscovered
Beedrill	Bug/Poison	Bug
Bellsprout	Grass/Poison	Grass
Blastoise	Water	"Monster/Water 1"
Bulbasaur	Grass/Poison	Grass/Monster
Butterfree	Bug/Flying	Bug
Caterpie	Bug	Bug
Chansey	Normal	Fairy
Charizard	Fire/Flying	Dragon/Monster
Charmander	Fire	Dragon/Monster
Charmeleon	Fire	Dragon/Monster
Clefable	Normal	Fairy
Clefairy	Normal	Fairy
Cloyster	Water/Ice	"Water 3"
Cubone	Ground	Monster
Dewgong	Water/Ice	"Field/Water 1"
Diglett	Ground	Field
Ditto	Normal	Ditto
Dodrio	Normal/Flying	Flying
Doduo	Normal/Flying	Flying
Dragonair	Dragon	"Dragon/Water 1"
Dragonite	Dragon/Flying	"Dragon/Water 1"
Dratini	Dragon	"Dragon/Water 1"

Drowzee	Psychic	Human-Like
Dugtrio	Ground	Field
Eevee	Normal	Field
Ekans	Poison	Dragon/Field
Electabuzz	Electric	Human-Like
Electrode	Electric	Mineral
Exeggcute	Grass/Psychic	Grass
Exeggutor	Grass/Psychic	Grass
Farfetchd	Normal/Flying	Field/Flying
Fearow	Normal/Flying	Flying
Flareon	Fire	Field
Gastly	Ghost/Poison	Amorphous
Gengar	Ghost/Poison	Amorphous
Geodude	Rock/Ground	Mineral
Gloom	Grass/Poison	Grass
Golbat	Poison/Flying	Flying
Goldeen	Water	"Water 2"
Golduck	Water	"Field/Water 1"
Golem	Rock/Ground	Mineral
Graveler	Rock/Ground	Mineral
Grimer	Poison	Amorphous
Growlithe	Fire	Field
Gyarados	Water/Flying	"Dragon/Water 2"
Haunter	Ghost/Poison	Amorphous
Hitmonchan	Fighting	Human-Like
Hitmonlee	Fighting	Human-Like
Horsea	Water	"Dragon/Water 1"
Hypno	Psychic	Human-Like
Ivysaur	Grass/Poison	Grass/Monster
Jigglypuff	Normal	Fairy
Jolteon	Electric	Field
Jynx	Ice/Psychic	Human-Like
Kabuto	Rock/Water	"Water 1/Water 3"
Kabutops	Rock/Water	"Water 1/Water 3"
Kadabra	Psychic	Human-Like
Kakuna	Bug/Poison	Bug
Kangaskhan	Normal	Monster
Kingler	Water	"Water 3"
Koffing	Poison	Amorphous
Krabby	Water	"Water 3"
Lapras	Water/Ice	"Monster/Water 1"
Lickitung	Normal	Monster

Machamp	Fighting	Human-Like
Machoke	Fighting	Human-Like
Machop	Fighting	Human-Like
Magikarp	Water	"Dragon/Water 2"
Magmar	Fire	Human-Like
Magnemite	Electric/Steel	Mineral
Magneton	Electric/Steel	Mineral
Mankey	Fighting	Field
Marowak	Ground	Monster
Meowth	Normal	Field
Metapod	Bug	Bug
Mew	Psychic	Undiscovered
Mewtwo	Psychic	Undiscovered
Moltres	Fire/Flying	Undiscovered
"Mr. Mime"	Psychic	Human-Like
Muk	Poison	Amorphous
Nidoking	Poison/Ground	Field/Monster
Nidoqueen	Poison/Ground	Undiscovered
NidoranF	Poison	Field/Monster
NidoranM	Poison	Field/Monster
Nidorina	Poison	Undiscovered
Nidorino	Poison	Field/Monster
Ninetales	Fire	Field
Oddish	Grass/Poison	Grass
Omanyte	Rock/Water	"Water 1/Water 3"
Omastar	Rock/Water	"Water 1/Water 3"
Onix	Rock/Ground	Mineral
Paras	Bug/Grass	Bug/Grass
Parasect	Bug/Grass	Bug/Grass
Persian	Normal	Field
Pidgeot	Normal/Flying	Flying
Pidgeotto	Normal/Flying	Flying
Pidgey	Normal/Flying	Flying
Pikachu	Electric	Fairy/Field
Pinsir	Bug	Bug
Poliwag	Water	"Water 1"
Poliwhirl	Water	"Water 1"
Poliwrath	Water/Fighting	"Water 1"
Ponyta	Fire	Field
Porygon	Normal	Mineral
Primeape	Fighting	Field
Psyduck	Water	"Field/Water 1"

Raichu	Electric	Fairy/Field
Rapidash	Fire	Field
Raticate	Normal	Field
Rattata	Normal	Field
Rhydon	Ground/Rock	Field/Monster
Rhyhorn	Ground/Rock	Field/Monster
Sandshrew	Ground	Field
Sandslash	Ground	Field
Scyther	Bug/Flying	Bug
Seadra	Water	"Dragon/Water 1"
Seaking	Water	"Water 2"
Seel	Water	"Field/Water 1"
Shellder	Water	"Water 3"
Slowbro	Water/Psychic	"Monster/Water 1"
Slowpoke	Water/Psychic	"Monster/Water 1"
Snorlax	Normal	Monster
Spearow	Normal/Flying	Flying
Squirtle	Water	"Monster/Water 1"
Starmie	Water/Psychic	"Water 3"
Staryu	Water	"Water 3"
Tangela	Grass	Grass
Tauros	Normal	Field
Tentacool	Water/Poison	"Water 3"
Tentacruel	Water/Poison	"Water 3"
Vaporeon	Water	Field
Venomoth	Bug/Poison	Bug
Venonat	Bug/Poison	Bug
Venusaur	Grass/Poison	Grass/Monster
Victreebel	Grass/Poison	Grass
Vileplume	Grass/Poison	Grass
Voltorb	Electric	Mineral
Vulpix	Fire	Field
Wartortle	Water	"Monster/Water 1"
Weedle	Bug/Poison	Bug
Weepinbell	Grass/Poison	Grass
Weezing	Poison	Amorphous
Wigglytuff	Normal	Fairy
Zapdos	Electric/Flying	Undiscovered
Zubat	Poison/Flying	Flying

9. `PokemonStores1(PokeID, PokemonName, PokemonLevel, Ability, Stats, FileID, Email)`

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PokeID	PokemonName	Ability	Stats	FileID	Email
1-001	Bulbasaur	0	Overgrow/Chlorophyll	0	NULL
1-002	Ivysaur	0	Overgrow/Chlorophyll	0	NULL
1-003	Venusaur	0	Overgrow/Chlorophyll	0	NULL
1-004	Charmander	0	"Blaze/Solar Power"	0	NULL
1-005	Charmeleon	0	"Blaze/Solar Power"	0	NULL
1-006	Charizard	0	"Blaze/Solar Power"	0	NULL
1-007	Squirtle	0	"Torrent/Rain Dish"	0	NULL
1-008	Wartortle	0	"Torrent/Rain Dish"	0	NULL
1-009	Blastoise	0	"Torrent/Rain Dish"	0	NULL
1-010	Caterpie	0	"Shield Dust/Run Away"	0	NULL
1-011	Metapod	0	"Shed Skin"	0	NULL
1-012	Butterfree	0	"Compound Eyes/Tinted Lens"	0	NULL
1-013	Weedle	0	"Shield Dust/Run Away"	0	NULL
1-014	Kakuna	0	"Shed Skin"	0	NULL
1-015	Beedrill	0	Swarm/Sniper	0	NULL
1-016	Pidgey	0	"Keen Eye/Tangled Feet/Big Pecks"	0	NULL
1-017	Pidgeotto	0	"Keen Eye/Tangled Feet/Big Pecks"	0	NULL
1-018	Pidgeot	0	"Keen Eye/Tangled Feet/Big Pecks"	0	NULL
1-019	Rattata	0	"Run Away/Guts/Hustle"	0	NULL
1-020	Raticate	0	"Run Away/Guts/Hustle"	0	NULL
1-021	Spearow	0	"Keen Eye/Sniper"	0	NULL
1-022	Fearow	0	"Keen Eye/Sniper"	0	NULL
1-023	Ekans	0	"Intimidate/Shed Skin/Unnerve"	0	NULL
1-024	Arbok	0	"Intimidate/Shed Skin/Unnerve"	0	NULL
1-025	Pikachu	0	"Static/Lightning Rod"	0	NULL
1-026	Raichu	0	"Static/Lightning Rod"	0	NULL
1-027	Sandshrew	0	"Sand Veil/Sand Rush"	0	NULL
1-028	Sandslash	0	"Sand Veil/Sand Rush"	0	NULL
1-029	NidoranF	0	"Poison Point/Rivalry/Hustle"	0	NULL
1-030	Nidorina	0	"Poison Point/Rivalry/Hustle"	0	NULL
1-031	Nidoqueen	0	"Poison Point/Rivalry/Sheer Force"	0	NULL
1-032	NidoranM	0	"Poison Point/Rivalry/Hustle"	0	NULL
1-033	Nidorino	0	"Poison Point/Rivalry/Hustle"	0	NULL
1-034	Nidoking	0	"Poison Point/Rivalry/Sheer Force"	0	NULL
1-035	Clefairy	0	"Cute Charm/Magic Guard/Friend Guard"	0	NULL
1-036	Clefable	0	"Cute Charm/Magic Guard/Unaware"	0	NULL
1-037	Vulpix	0	"Flash Fire/Drought"	0	NULL
1-038	Ninetales	0	"Flash Fire/Drought"	0	NULL
1-039	Jigglypuff	0	"Cute Charm/Competitive/Friend Guard"	0	NULL
1-040	Wigglytuff	0	"Cute Charm/Competitive/Frisk"	0	NULL
1-041	Zubat	0	"Inner Focus/Infiltrator"	0	NULL
1-042	Golbat	0	"Inner Focus/Infiltrator"	0	NULL

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1-043	Oddish	0	"Chlorophyll/Run Away"	0	NULL
1-044	Gloom	0	Chlorophyll/Stench	0	NULL
1-045	Vileplume	0	"Chlorophyll/Effect Spore"	0	NULL
1-046	Paras	0	"Effect Spore/Dry Skin/Damp"	0	NULL
1-047	Parasect	0	"Effect Spore/Dry Skin/Damp"	0	NULL
1-048	Venonat	0	"Compound Eyes/Tinted Lens/Run Away"	0	NULL
1-049	Venomoth	0	"Shield Dust/Tinted Lens/Wonder Skin"	0	NULL
1-050	Diglett	0	"Sand Veil/Arena Trap/Sand Force"	0	NULL
1-051	Dugtrio	0	"Sand Veil/Arena Trap/Sand Force"	0	NULL
1-052	Meowth	0	Pickup/Technician/Unnerve	0	NULL
1-053	Persian	0	Limber/Technician/Unnerve	0	NULL
1-054	Psyduck	0	"Damp/Cloud Nine/Swift Swim"	0	NULL
1-055	Golduck	0	"Damp/Cloud Nine/Swift Swim"	0	NULL
1-056	Mankey	0	"Vital Spirit/Anger Point/Defiant"	0	NULL
1-057	Primeape	0	"Vital Spirit/Anger Point/Defiant"	0	NULL
1-058	Growlithe	0	"Intimidate/Flash Fire/Justified"	0	NULL
1-059	Arcanine	0	"Intimidate/Flash Fire/Justified"	0	NULL
1-060	Poliwag	0	"Water Absorb/Damp/Swift Swim"	0	NULL
1-061	Poliwhirl	0	"Water Absorb/Damp/Swift Swim"	0	NULL
1-062	Poliwrath	0	"Water Absorb/Damp/Swift Swim"	0	NULL
1-063	Abra	0	"Synchronize/Inner Focus/Magic Guard"	0	NULL
1-064	Kadabra	0	"Synchronize/Inner Focus/Magic Guard"	0	NULL
1-065	Alakazam	0	"Synchronize/Inner Focus/Magic Guard"	0	NULL
1-066	Machop	0	"Guts/No Guard/Steadfast"	0	NULL
1-067	Machoke	0	"Guts/No Guard/Steadfast"	0	NULL
1-068	Machamp	0	"Guts/No Guard/Steadfast"	0	NULL
1-069	Bellsprout	0	Chlorophyll/Gluttony	0	NULL
1-070	Weepinbell	0	Chlorophyll/Gluttony	0	NULL
1-071	Victreebel	0	Chlorophyll/Gluttony	0	NULL
1-072	Tentacool	0	"Clear Body/Liquid Ooze/Rain Dish"	0	NULL
1-073	Tentacruel	0	"Clear Body/Liquid Ooze/Rain Dish"	0	NULL
1-074	Geodude	0	"Rock Head/Sturdy/Sand Veil"	0	NULL
1-075	Graveler	0	"Rock Head/Sturdy/Sand Veil"	0	NULL
1-076	Golem	0	"Rock Head/Sturdy/Sand Veil"	0	NULL
1-077	Ponyta	0	"Run Away/Flash Fire/Flame Body"	0	NULL
1-078	Rapidash	0	"Run Away/Flash Fire/Flame Body"	0	NULL
1-079	Slowpoke	0	"Oblivious/Own Tempo/Regenerator"	0	NULL
1-080	Slowbro	0	"Oblivious/Own Tempo/Regenerator"	0	NULL
1-081	Magnemite	0	"Magnet Pull/Sturdy/Analytic"	0	NULL
1-082	Magneton	0	"Magnet Pull/Sturdy/Analytic"	0	NULL
1-083	Farfetchd	0	"Keen Eye/Inner Focus/Defiant"	0	NULL
1-084	Doduo	0	"Run Away/Early Bird/Tangled Feet"	0	NULL

1-085	Dodrio	0	"Run Away/Early Bird/Tangled Feet"	0	NULL
1-086	Seel	0	"Thick Fat/Hydration/Ice Body"	0	NULL
1-087	Dewgong	0	"Thick Fat/Hydration/Ice Body"	0	NULL
1-088	Grimer	0	"Stench/Sticky Hold/Poison Touch"	0	NULL
1-089	Muk	0	"Stench/Sticky Hold/Poison Touch"	0	NULL
1-090	Shellder	0	"Shell Armor/Skill Link/Overcoat"	0	NULL
1-091	Cloyster	0	"Shell Armor/Skill Link/Overcoat"	0	NULL
1-092	Gastly	0	Levitate	0	NULL
1-093	Haunter	0	Levitate	0	NULL
1-094	Gengar	0	"Cursed Body"	0	NULL
1-095	Onix	0	"Rock Head/Sturdy/Weak Armor"	0	NULL
1-096	Drowzee	0	"Insomnia/Forewarn/Inner Focus"	0	NULL
1-097	Hypno	0	"Insomnia/Forewarn/Inner Focus"	0	NULL
1-098	Krabby	0	"Hyper Cutter/Shell Armor/Sheer Force"	0	NULL
1-099	Kingler	0	"Hyper Cutter/Shell Armor/Sheer Force"	0	NULL
1-100	Voltorb	0	Soundproof/Static/Aftermath	0	NULL
1-101	Electrode	0	Soundproof/Static/Aftermath	0	NULL
1-102	Exeggcute	0	Chlorophyll/Harvest	0	NULL
1-103	Exeggutor	0	Chlorophyll/Harvest	0	NULL
1-104	Cubone	0	"Rock Head/Lightning Rod/Battle Armor"	0	NULL
1-105	Marowak	0	"Rock Head/Lightning Rod/Battle Armor"	0	NULL
1-106	Hitmonlee	0	Limber/Reckless/Unburden	0	NULL
1-107	Hitmonchan	0	"Keen Eye/Iron Fist/Inner Focus"	0	NULL
1-108	Lickitung	0	"Own Tempo/Oblivious/Cloud Nine"	0	NULL
1-109	Koffing	0	"Levitate/Neutralizing Gas/Stench"	0	NULL
1-110	Weezing	0	"Levitate/Neutralizing Gas/Stench"	0	NULL
1-111	Rhyhorn	0	"Lightning Rod/Rock Head/Reckless"	0	NULL
1-112	Rhydon	0	"Lightning Rod/Rock Head/Reckless"	0	NULL
1-113	Chansey	0	"Natural Cure/Serene Grace/Healer"	0	NULL
1-114	Tangela	0	"Chlorophyll/Leaf Guard/Regenerator"	0	NULL
1-115	Kangaskhan	0	"Early Bird/Scrappy/Inner Focus"	0	NULL
1-116	Horsea	0	"Swift Swim/Sniper/Damp"	0	NULL
1-117	Seadra	0	"Poison Point/Sniper/Damp"	0	NULL
1-118	Goldeen	0	"Swift Swim/Water Veil/Lightning Rod"	0	NULL
1-119	Seaking	0	"Swift Swim/Water Veil/Lightning Rod"	0	NULL
1-120	Staryu	0	"Illuminate/Natural Cure/Analytic"	0	NULL
1-121	Starmie	0	"Illuminate/Natural Cure/Analytic"	0	NULL
1-122	"Mr. Mime"	0	Soundproof/Filter/Technician	0	NULL
1-123	Scyther	0	Swarm/Technician/Steadfast	0	NULL
1-124	Jynx	0	"Oblivious/Forewarn/Dry Skin"	0	NULL
1-125	Electabuzz	0	"Static/Vital Spirit"	0	NULL
1-126	Magmar	0	"Flame Body/Vital Spirit"	0	NULL

1-127	Pinsir	0	"Hyper Cutter/Mold Breaker/Moxie"	0	NULL
1-128	Tauros	0	"Intimidate/Anger Point/Sheer Force"	0	NULL
1-129	Magikarp	0	"Swift Swim/Rattled"	0	NULL
1-130	Gyarados	0	Intimidate/Moxie	0	NULL
1-131	Lapras	0	"Water Absorb/Shell Armor/Hydration"	0	NULL
1-132	Ditto	0	Limber/Imposter	0	NULL
1-133	Eevee	0	"Run Away/Adaptability/Anticipation"	0	NULL
1-134	Vaporeon	0	"Water Absorb/Hydration"	0	NULL
1-135	Jolteon	0	"Volt Absorb/Quick Feet"	0	NULL
1-136	Flareon	0	"Flash Fire/Guts"	0	NULL
1-137	Porygon	0	Trace/Download/Analytic	0	NULL
1-138	Omanyte	0	"Swift Swim/Shell Armor/Weak Armor"	0	NULL
1-139	Omastar	0	"Swift Swim/Shell Armor/Weak Armor"	0	NULL
1-140	Kabuto	0	"Swift Swim/Battle Armor/Weak Armor"	0	NULL
1-141	Kabutops	0	"Swift Swim/Battle Armor/Weak Armor"	0	NULL
1-142	Aerodactyl	0	"Rock Head/Pressure/Unnerve"	0	NULL
1-143	Snorlax	0	"Immunity/Thick Fat/Gluttony"	0	NULL
1-144	Articuno	0	"Pressure/Snow Cloak"	0	NULL
1-145	Zapdos	0	Pressure/Static	0	NULL
1-146	Moltres	0	"Pressure/Flame Body"	0	NULL
1-147	Dratini	0	"Shed Skin/Marvel Scale"	0	NULL
1-148	Dragonair	0	"Shed Skin/Marvel Scale"	0	NULL
1-149	Dragonite	0	"Inner Focus/Multiscale"	0	NULL
1-150	Mewtwo	0	Pressure/Unnerve	0	NULL
1-151	Mew	0	Synchronize	0	NULL

10. Evolves(PokeIDFrom, PokeIDTo, Cond)

PokeIDFrom	PokeIDTo	Cond
1-001	1-002	"Level 16"
1-002	1-003	"Level 32"
1-004	1-005	"Level 16"
1-005	1-006	"Level 36"
1-007	1-008	"Level 16"
1-008	1-009	"Level 36"

11. Learns(MoveName, PokeID, Lv)

MoveName	PokeID	Lv
Absorb	1-043	1
Absorb	1-044	1
Absorb	1-114	29
Absorb	1-140	34

Absorb	1-141	1
Acid	1-023	38
Acid	1-024	47
Acid	1-043	24
Acid	1-044	28
Acid	1-045	1
Acid	1-069	26
Acid	1-070	29
Acid	1-071	1
Acid	1-072	1
Acid	1-073	1
" Acid Armor"	1-088	55
" Acid Armor"	1-089	60
" Acid Armor"	1-134	42
Agility	1-015	35
Agility	1-016	36
Agility	1-017	40
Agility	1-018	44
Agility	1-021	36
Agility	1-022	43
Agility	1-025	33
Agility	1-058	39
Agility	1-077	48
Agility	1-078	55
Agility	1-083	31
Agility	1-084	44
Agility	1-085	51
Agility	1-107	1
Agility	1-116	37
Agility	1-117	41
Agility	1-118	54
Agility	1-119	54
Agility	1-123	42
Agility	1-135	44
Agility	1-137	35
Agility	1-142	1
Agility	1-144	55
Agility	1-145	55
Agility	1-146	55
Agility	1-147	20
Agility	1-148	20
Agility	1-149	1

Amnesia	1-060	38
Amnesia	1-061	41
Amnesia	1-079	40
Amnesia	1-080	44
Amnesia	1-143	1
Amnesia	1-150	81
"Aurora Beam"	1-086	35
"Aurora Beam"	1-087	1
"Aurora Beam"	1-090	30
"Aurora Beam"	1-091	1
Barrage	1-102	1
Barrage	1-103	1
Barrier	1-072	33
Barrier	1-073	35
Barrier	1-122	1
Barrier	1-150	63
Bind	1-095	15
Bind	1-114	1
Bite	1-007	22
Bite	1-008	24
Bite	1-009	24
Bite	1-023	17
Bite	1-024	17
Bite	1-029	29
Bite	1-030	32
Bite	1-041	15
Bite	1-042	1
Bite	1-052	12
Bite	1-053	1
Bite	1-058	1
Bite	1-115	26
Bite	1-130	1
Bite	1-133	37
Bite	1-134	40
Bite	1-136	40
Bite	1-142	38
Blizzard	1-124	58
Blizzard	1-144	51
"Body Slam"	1-031	1
"Body Slam"	1-039	34
"Body Slam"	1-060	31
"Body Slam"	1-061	33

"Body Slam"	1-062	1
"Body Slam"	1-124	39
"Body Slam"	1-131	25
"Body Slam"	1-143	35
"Bone Club"	1-104	1
"Bone Club"	1-105	1
Bonemerang	1-104	43
Bonemerang	1-105	48
Bubble	1-007	8
Bubble	1-008	1
Bubble	1-009	1
Bubble	1-060	1
Bubble	1-061	1
Bubble	1-098	1
Bubble	1-099	1
Bubble	1-116	1
Bubble	1-117	1
Clamp	1-090	23
Clamp	1-091	1
"Comet Punch"	1-107	1
"Comet Punch"	1-115	1
"Confuse Ray"	1-037	28
"Confuse Ray"	1-041	21
"Confuse Ray"	1-042	21
"Confuse Ray"	1-092	1
"Confuse Ray"	1-093	1
"Confuse Ray"	1-094	1
"Confuse Ray"	1-126	39
"Confuse Ray"	1-131	31
Confusion	1-012	1
Confusion	1-054	36
Confusion	1-055	39
Confusion	1-064	1
Confusion	1-065	1
Confusion	1-079	1
Confusion	1-080	1
Confusion	1-096	17
Confusion	1-097	1
Confusion	1-122	1
Confusion	1-150	1
Constrict	1-072	27
Constrict	1-073	27

Constrict	1-114	1
Conversion	1-137	1
Counter	1-107	53
Crabhammer	1-098	35
Crabhammer	1-099	42
"Defense Curl"	1-035	39
"Defense Curl"	1-039	19
"Defense Curl"	1-040	1
"Defense Curl"	1-074	11
"Defense Curl"	1-075	1
"Defense Curl"	1-076	1
"Defense Curl"	1-108	23
"Defense Curl"	1-113	44
Dig	1-050	19
Dig	1-051	1
Disable	1-039	14
Disable	1-040	1
Disable	1-048	1
Disable	1-049	1
Disable	1-054	31
Disable	1-055	1
Disable	1-064	1
Disable	1-065	1
Disable	1-079	18
Disable	1-080	1
Disable	1-088	1
Disable	1-089	1
Disable	1-096	12
Disable	1-097	1
Disable	1-108	15
Disable	1-150	1
"Dizzy Punch"	1-115	46
"Double Kick"	1-029	43
"Double Kick"	1-030	50
"Double Kick"	1-032	43
"Double Kick"	1-033	50
"Double Kick"	1-106	1
"Double Kick"	1-135	42
"Double Team"	1-123	24
Double-Edge	1-039	39
Double-Edge	1-113	54
Double-Edge	1-143	48

DoubleSlap	1-035	18
DoubleSlap	1-036	1
DoubleSlap	1-039	24
DoubleSlap	1-040	1
DoubleSlap	1-060	25
DoubleSlap	1-061	26
DoubleSlap	1-062	1
DoubleSlap	1-113	1
DoubleSlap	1-122	31
DoubleSlap	1-124	23
"Dragon Rage"	1-130	1
"Dragon Rage"	1-147	40
"Dragon Rage"	1-148	45
"Dragon Rage"	1-149	45
"Dream Eater"	1-092	35
"Dream Eater"	1-093	38
"Dream Eater"	1-094	38
"Drill Peck"	1-021	29
"Drill Peck"	1-022	34
"Drill Peck"	1-084	30
"Drill Peck"	1-085	30
"Drill Peck"	1-145	1
Earthquake	1-050	40
Earthquake	1-051	47
Earthquake	1-074	31
Earthquake	1-075	36
Earthquake	1-076	36
Ember	1-004	9
Ember	1-005	1
Ember	1-006	1
Ember	1-037	1
Ember	1-038	1
Ember	1-058	18
Ember	1-059	1
Ember	1-077	1
Ember	1-078	1
Ember	1-126	1
Ember	1-136	1
Explosion	1-074	36
Explosion	1-075	43
Explosion	1-076	43
Explosion	1-100	43

Explosion	1-101	50
Explosion	1-109	48
Explosion	1-110	53
"Fire Punch"	1-107	33
"Fire Punch"	1-126	43
"Fire Spin"	1-004	46
"Fire Spin"	1-005	56
"Fire Spin"	1-006	55
"Fire Spin"	1-037	42
"Fire Spin"	1-077	39
"Fire Spin"	1-078	39
"Fire Spin"	1-136	44
"Fire Spin"	1-146	1
Flamethrower	1-004	38
Flamethrower	1-005	42
Flamethrower	1-006	46
Flamethrower	1-037	35
Flamethrower	1-058	50
Flamethrower	1-126	55
Flamethrower	1-136	54
"Focus Energy"	1-015	16
"Focus Energy"	1-019	23
"Focus Energy"	1-020	27
"Focus Energy"	1-032	21
"Focus Energy"	1-033	23
"Focus Energy"	1-056	27
"Focus Energy"	1-057	27
"Focus Energy"	1-066	32
"Focus Energy"	1-067	36
"Focus Energy"	1-068	36
"Focus Energy"	1-104	31
"Focus Energy"	1-105	1
"Focus Energy"	1-106	43
"Focus Energy"	1-123	20
"Focus Energy"	1-127	36
"Fury Attack"	1-015	1
"Fury Attack"	1-021	15
"Fury Attack"	1-022	15
"Fury Attack"	1-032	29
"Fury Attack"	1-033	32
"Fury Attack"	1-083	15
"Fury Attack"	1-084	24

"Fury Attack"	1-085	1
"Fury Attack"	1-111	40
"Fury Attack"	1-112	1
"Fury Attack"	1-118	30
"Fury Attack"	1-119	30
"Fury Swipes"	1-027	38
"Fury Swipes"	1-028	47
"Fury Swipes"	1-029	36
"Fury Swipes"	1-030	41
"Fury Swipes"	1-052	33
"Fury Swipes"	1-053	37
"Fury Swipes"	1-054	43
"Fury Swipes"	1-055	48
"Fury Swipes"	1-056	21
"Fury Swipes"	1-057	1
Glare	1-023	24
Glare	1-024	27
Growl	1-001	1
Growl	1-002	1
Growl	1-003	1
Growl	1-004	1
Growl	1-005	1
Growl	1-006	1
Growl	1-021	1
Growl	1-022	1
Growl	1-025	1
Growl	1-026	1
Growl	1-029	1
Growl	1-030	1
Growl	1-035	1
Growl	1-050	15
Growl	1-051	1
Growl	1-052	1
Growl	1-053	1
Growl	1-077	35
Growl	1-078	1
Growl	1-079	27
Growl	1-080	27
Growl	1-084	20
Growl	1-085	1
Growl	1-086	30
Growl	1-087	1

Growl	1-104	1
Growl	1-105	1
Growl	1-113	30
Growl	1-131	1
Growth	1-001	34
Growth	1-002	38
Growth	1-003	43
Growth	1-046	41
Growth	1-047	48
Growth	1-069	1
Growth	1-070	1
Growth	1-114	49
Guillotine	1-098	25
Guillotine	1-099	25
Guillotine	1-127	30
Gust	1-016	1
Gust	1-017	1
Gust	1-018	1
Harden	1-011	1
Harden	1-014	1
Harden	1-074	26
Harden	1-075	29
Harden	1-076	29
Harden	1-088	42
Harden	1-089	45
Harden	1-095	43
Harden	1-098	40
Harden	1-099	49
Harden	1-120	22
Harden	1-121	1
Harden	1-127	43
Harden	1-140	1
Harden	1-141	1
Harden	1-143	41
Haze	1-041	36
Haze	1-042	43
Haze	1-109	45
Haze	1-110	49
Haze	1-134	44
Headbutt	1-079	22
Headbutt	1-080	1
Headbutt	1-086	1

Headbutt	1-087	1
Headbutt	1-096	24
Headbutt	1-097	24
Headbutt	1-143	1
"Hi Jump Kick"	1-106	48
"Horn Attack"	1-032	8
"Horn Attack"	1-033	1
"Horn Attack"	1-034	1
"Horn Attack"	1-111	1
"Horn Attack"	1-112	1
"Horn Attack"	1-118	24
"Horn Attack"	1-119	24
"Horn Attack"	1-138	34
"Horn Attack"	1-139	1
"Horn Drill"	1-032	36
"Horn Drill"	1-033	41
"Horn Drill"	1-111	45
"Horn Drill"	1-112	48
"Horn Drill"	1-118	45
"Horn Drill"	1-119	48
"Hydro Pump"	1-007	42
"Hydro Pump"	1-008	47
"Hydro Pump"	1-009	52
"Hydro Pump"	1-054	52
"Hydro Pump"	1-055	59
"Hydro Pump"	1-060	45
"Hydro Pump"	1-061	49
"Hydro Pump"	1-072	48
"Hydro Pump"	1-073	50
"Hydro Pump"	1-116	45
"Hydro Pump"	1-117	52
"Hydro Pump"	1-120	47
"Hydro Pump"	1-130	1
"Hydro Pump"	1-131	46
"Hydro Pump"	1-134	54
"Hydro Pump"	1-138	53
"Hydro Pump"	1-139	49
"Hydro Pump"	1-140	49
"Hydro Pump"	1-141	53
"Hyper Beam"	1-130	52
"Hyper Beam"	1-142	54
"Hyper Beam"	1-143	56

"Hyper Beam"	1-147	50
"Hyper Beam"	1-148	55
"Hyper Beam"	1-149	60
"Hyper Fang"	1-019	14
"Hyper Fang"	1-020	14
Hypnosis	1-060	16
Hypnosis	1-061	1
Hypnosis	1-062	1
Hypnosis	1-092	27
Hypnosis	1-093	29
Hypnosis	1-094	29
Hypnosis	1-096	1
Hypnosis	1-097	1
Hypnosis	1-102	1
Hypnosis	1-103	1
"Ice Beam"	1-086	50
"Ice Beam"	1-087	56
"Ice Beam"	1-090	50
"Ice Beam"	1-131	38
"Ice Beam"	1-144	1
"Ice Punch"	1-107	38
"Ice Punch"	1-124	31
"Jump Kick"	1-106	38
"Karate Chop"	1-056	15
"Karate Chop"	1-057	1
"Karate Chop"	1-066	1
"Karate Chop"	1-067	1
"Karate Chop"	1-068	1
"Leech Life"	1-041	1
"Leech Life"	1-042	1
"Leech Life"	1-046	20
"Leech Life"	1-047	1
"Leech Life"	1-048	27
"Leech Life"	1-049	1
"Leech Seed"	1-001	7
"Leech Seed"	1-002	1
"Leech Seed"	1-003	1
"Leech Seed"	1-102	28
Leer	1-004	15
Leer	1-005	15
Leer	1-006	1
Leer	1-021	9

Leer	1-022	1
Leer	1-023	1
Leer	1-024	1
Leer	1-032	1
Leer	1-033	1
Leer	1-056	1
Leer	1-057	1
Leer	1-058	23
Leer	1-059	1
Leer	1-066	25
Leer	1-067	1
Leer	1-068	1
Leer	1-083	7
Leer	1-090	39
Leer	1-098	1
Leer	1-099	1
Leer	1-104	25
Leer	1-105	1
Leer	1-111	50
Leer	1-112	55
Leer	1-115	41
Leer	1-116	24
Leer	1-117	24
Leer	1-123	17
Leer	1-125	1
Leer	1-126	36
Leer	1-128	35
Leer	1-130	1
Leer	1-136	42
Leer	1-138	39
Leer	1-139	39
Leer	1-140	44
Leer	1-141	46
Leer	1-146	51
Leer	1-147	1
Leer	1-148	1
Leer	1-149	1
Lick	1-092	1
Lick	1-093	1
Lick	1-094	1
Lick	1-124	18
"Light Screen"	1-035	48

"Light Screen"	1-100	29
"Light Screen"	1-101	29
"Light Screen"	1-113	48
"Light Screen"	1-120	42
"Light Screen"	1-122	23
"Light Screen"	1-125	49
"Light Screen"	1-145	60
"Lovely Kiss"	1-124	1
"Low Kick"	1-066	20
"Low Kick"	1-067	1
"Low Kick"	1-068	1
Meditate	1-096	37
Meditate	1-097	43
Meditate	1-106	1
Meditate	1-122	39
"Mega Kick"	1-106	53
"Mega Punch"	1-107	48
"Mega Punch"	1-115	36
"Mega Punch"	1-151	20
Metronome	1-035	31
Metronome	1-036	1
Metronome	1-151	30
Minimize	1-035	24
Minimize	1-036	1
Minimize	1-088	33
Minimize	1-089	33
Minimize	1-113	38
Minimize	1-120	37
"Mirror Move"	1-016	44
"Mirror Move"	1-017	49
"Mirror Move"	1-018	54
"Mirror Move"	1-021	22
"Mirror Move"	1-022	25
Mist	1-131	20
Mist	1-134	48
Mist	1-144	60
Mist	1-150	75
"Night Shade"	1-092	1
"Night Shade"	1-093	1
"Night Shade"	1-094	1
"Pay Day"	1-052	17
"Pay Day"	1-053	17

Peck	1-021	1
Peck	1-022	1
Peck	1-083	1
Peck	1-084	1
Peck	1-085	1
Peck	1-118	1
Peck	1-119	1
Peck	1-144	1
Peck	1-146	1
"Petal Dance"	1-043	33
"Petal Dance"	1-044	38
"Petal Dance"	1-045	1
"Pin Missile"	1-015	30
"Pin Missile"	1-135	48
"Poison Gas"	1-088	30
"Poison Gas"	1-089	1
"Poison Gas"	1-096	29
"Poison Gas"	1-097	33
"Poison Sting"	1-013	1
"Poison Sting"	1-023	10
"Poison Sting"	1-024	1
"Poison Sting"	1-027	24
"Poison Sting"	1-028	27
"Poison Sting"	1-029	14
"Poison Sting"	1-030	14
"Poison Sting"	1-031	14
"Poison Sting"	1-032	14
"Poison Sting"	1-033	14
"Poison Sting"	1-034	1
"Poison Sting"	1-072	18
"Poison Sting"	1-073	18
PoisonPowder	1-001	20
PoisonPowder	1-002	22
PoisonPowder	1-003	22
PoisonPowder	1-012	15
PoisonPowder	1-043	15
PoisonPowder	1-044	1
PoisonPowder	1-045	15
PoisonPowder	1-048	24
PoisonPowder	1-049	1
PoisonPowder	1-069	15
PoisonPowder	1-070	15

PoisonPowder	1-071	15
PoisonPowder	1-102	37
PoisonPowder	1-114	32
Pound	1-035	1
Pound	1-039	9
Pound	1-088	1
Pound	1-089	1
Pound	1-096	1
Pound	1-097	1
Pound	1-113	1
Pound	1-124	1
Pound	1-151	1
Psybeam	1-012	32
Psybeam	1-048	35
Psybeam	1-049	38
Psybeam	1-064	27
Psybeam	1-065	27
Psybeam	1-137	23
Psychic	1-048	43
Psychic	1-049	50
Psychic	1-064	38
Psychic	1-065	38
Psychic	1-079	48
Psychic	1-080	55
Psychic	1-096	32
Psychic	1-097	37
Psychic	1-150	1
Psychic	1-151	40
"Quick Attack"	1-016	12
"Quick Attack"	1-017	12
"Quick Attack"	1-018	1
"Quick Attack"	1-019	7
"Quick Attack"	1-020	1
"Quick Attack"	1-025	16
"Quick Attack"	1-037	16
"Quick Attack"	1-038	1
"Quick Attack"	1-123	1
"Quick Attack"	1-125	1
"Quick Attack"	1-133	27
"Quick Attack"	1-134	1
"Quick Attack"	1-135	1
"Quick Attack"	1-136	1

Rage	1-004	22
Rage	1-005	24
Rage	1-006	24
Rage	1-015	25
Rage	1-084	36
Rage	1-085	39
Rage	1-095	25
Rage	1-104	46
Rage	1-105	55
Rage	1-115	1
Rage	1-128	44
Rage	1-136	48
"Razor Leaf"	1-001	27
"Razor Leaf"	1-002	30
"Razor Leaf"	1-003	30
"Razor Leaf"	1-069	33
"Razor Leaf"	1-070	38
"Razor Leaf"	1-071	1
Recover	1-064	31
Recover	1-065	31
Recover	1-120	27
Recover	1-137	28
Recover	1-150	70
Reflect	1-064	42
Reflect	1-065	42
Reflect	1-102	25
Rest	1-039	29
Rest	1-086	40
Rest	1-087	44
Rest	1-143	1
Roar	1-037	21
Roar	1-038	1
Roar	1-058	1
Roar	1-059	1
"Rock Throw"	1-074	16
"Rock Throw"	1-075	16
"Rock Throw"	1-076	16
"Rock Throw"	1-095	19
"Rolling Kick"	1-106	33
Sand-Attack	1-016	5
Sand-Attack	1-017	1
Sand-Attack	1-018	1

Sand-Attack	1-027	10
Sand-Attack	1-028	1
Sand-Attack	1-050	24
Sand-Attack	1-051	24
Sand-Attack	1-083	1
Sand-Attack	1-133	1
Sand-Attack	1-134	1
Sand-Attack	1-135	1
Sand-Attack	1-136	1
Scratch	1-004	1
Scratch	1-005	1
Scratch	1-006	1
Scratch	1-027	1
Scratch	1-028	1
Scratch	1-029	8
Scratch	1-030	1
Scratch	1-031	1
Scratch	1-046	1
Scratch	1-047	1
Scratch	1-050	1
Scratch	1-051	1
Scratch	1-052	1
Scratch	1-053	1
Scratch	1-054	1
Scratch	1-055	1
Scratch	1-056	1
Scratch	1-057	1
Scratch	1-140	1
Scratch	1-141	1
Screech	1-023	31
Screech	1-024	36
Screech	1-042	1
Screech	1-052	24
Screech	1-053	1
Screech	1-072	40
Screech	1-073	43
Screech	1-081	47
Screech	1-082	54
Screech	1-088	48
Screech	1-089	53
Screech	1-095	1
Screech	1-100	1

Screech	1-101	1
Screech	1-108	39
Screech	1-125	37
"Seismic Toss"	1-056	33
"Seismic Toss"	1-057	37
"Seismic Toss"	1-066	39
"Seismic Toss"	1-067	44
"Seismic Toss"	1-068	44
"Seismic Toss"	1-127	25
Selfdestruct	1-074	21
Selfdestruct	1-075	21
Selfdestruct	1-076	21
Selfdestruct	1-100	22
Selfdestruct	1-101	22
Selfdestruct	1-109	40
Selfdestruct	1-110	43
Sharpen	1-137	1
Sing	1-035	13
Sing	1-036	1
Sing	1-039	1
Sing	1-040	1
Sing	1-113	24
Sing	1-131	16
"Skull Bash"	1-007	35
"Skull Bash"	1-008	39
"Skull Bash"	1-009	42
"Sky Attack"	1-146	60
Slam	1-069	42
Slam	1-070	49
Slam	1-095	33
Slam	1-108	31
Slam	1-114	45
Slam	1-147	30
Slam	1-148	35
Slam	1-149	35
Slash	1-004	30
Slash	1-005	33
Slash	1-006	36
Slash	1-027	17
Slash	1-028	17
Slash	1-046	34
Slash	1-047	39

Slash	1-050	31
Slash	1-051	35
Slash	1-052	44
Slash	1-053	51
Slash	1-083	39
Slash	1-123	29
Slash	1-127	49
Slash	1-140	39
Slash	1-141	39
"Sleep Powder"	1-001	41
"Sleep Powder"	1-002	46
"Sleep Powder"	1-003	55
"Sleep Powder"	1-012	17
"Sleep Powder"	1-043	19
"Sleep Powder"	1-044	19
"Sleep Powder"	1-045	1
"Sleep Powder"	1-048	38
"Sleep Powder"	1-049	43
"Sleep Powder"	1-069	18
"Sleep Powder"	1-070	18
"Sleep Powder"	1-071	1
"Sleep Powder"	1-102	48
"Sleep Powder"	1-114	39
Sludge	1-088	37
Sludge	1-089	37
Sludge	1-109	32
Sludge	1-110	1
Smog	1-109	1
Smog	1-110	1
Smog	1-126	52
SmokeScreen	1-109	37
SmokeScreen	1-110	39
SmokeScreen	1-116	19
SmokeScreen	1-117	1
SmokeScreen	1-126	48
SolarBeam	1-001	48
SolarBeam	1-002	54
SolarBeam	1-003	65
SolarBeam	1-043	46
SolarBeam	1-044	52
SolarBeam	1-102	42
SonicBoom	1-081	21

SonicBoom	1-082	1
SonicBoom	1-100	17
SonicBoom	1-101	1
"Spike Cannon"	1-091	50
"Spike Cannon"	1-138	46
"Spike Cannon"	1-139	44
Splash	1-129	1
Spore	1-046	27
Spore	1-047	30
Stomp	1-077	32
Stomp	1-078	1
Stomp	1-098	30
Stomp	1-099	34
Stomp	1-103	28
Stomp	1-108	7
Stomp	1-111	30
Stomp	1-112	1
Stomp	1-128	21
"String Shot"	1-010	1
"String Shot"	1-013	1
"Stun Spore"	1-012	16
"Stun Spore"	1-043	17
"Stun Spore"	1-044	1
"Stun Spore"	1-045	1
"Stun Spore"	1-046	13
"Stun Spore"	1-047	1
"Stun Spore"	1-048	30
"Stun Spore"	1-049	30
"Stun Spore"	1-069	21
"Stun Spore"	1-070	23
"Stun Spore"	1-071	1
"Stun Spore"	1-102	32
"Stun Spore"	1-114	36
Submission	1-066	46
Submission	1-067	52
Submission	1-068	52
Substitute	1-122	47
"Super Fang"	1-019	34
"Super Fang"	1-020	41
Supersonic	1-012	21
Supersonic	1-041	10
Supersonic	1-042	10

Supersonic	1-072	7
Supersonic	1-073	1
Supersonic	1-081	29
Supersonic	1-082	29
Supersonic	1-090	18
Supersonic	1-091	1
Supersonic	1-108	1
Supersonic	1-118	19
Supersonic	1-119	1
Supersonic	1-142	33
Swift	1-025	26
Swift	1-027	31
Swift	1-028	36
Swift	1-081	41
Swift	1-082	46
Swift	1-100	36
Swift	1-101	40
Swift	1-120	32
Swift	1-150	1
"Swords Dance"	1-083	23
"Swords Dance"	1-123	35
"Swords Dance"	1-127	54
Tackle	1-001	1
Tackle	1-002	1
Tackle	1-003	1
Tackle	1-007	1
Tackle	1-008	1
Tackle	1-009	1
Tackle	1-010	1
Tackle	1-019	1
Tackle	1-020	1
Tackle	1-029	1
Tackle	1-030	1
Tackle	1-031	1
Tackle	1-032	1
Tackle	1-033	1
Tackle	1-034	1
Tackle	1-048	1
Tackle	1-049	1
Tackle	1-074	1
Tackle	1-075	1
Tackle	1-076	1

Tackle	1-081	1
Tackle	1-082	1
Tackle	1-090	1
Tackle	1-095	1
Tackle	1-100	1
Tackle	1-101	1
Tackle	1-109	1
Tackle	1-110	1
Tackle	1-120	1
Tackle	1-121	1
Tackle	1-128	1
Tackle	1-129	15
Tackle	1-133	1
Tackle	1-134	1
Tackle	1-135	1
Tackle	1-136	1
Tackle	1-137	1
"Tail Whip"	1-007	1
"Tail Whip"	1-008	1
"Tail Whip"	1-009	1
"Tail Whip"	1-019	1
"Tail Whip"	1-020	1
"Tail Whip"	1-029	21
"Tail Whip"	1-030	23
"Tail Whip"	1-031	1
"Tail Whip"	1-037	1
"Tail Whip"	1-038	1
"Tail Whip"	1-054	28
"Tail Whip"	1-055	1
"Tail Whip"	1-077	30
"Tail Whip"	1-078	1
"Tail Whip"	1-111	35
"Tail Whip"	1-112	1
"Tail Whip"	1-115	31
"Tail Whip"	1-118	1
"Tail Whip"	1-119	1
"Tail Whip"	1-128	28
"Tail Whip"	1-133	31
"Tail Whip"	1-134	37
"Tail Whip"	1-135	37
"Tail Whip"	1-136	37
"Take Down"	1-058	30

"Take Down"	1-059	1
"Take Down"	1-077	43
"Take Down"	1-078	47
"Take Down"	1-086	45
"Take Down"	1-087	50
"Take Down"	1-111	55
"Take Down"	1-112	64
"Take Down"	1-128	51
"Take Down"	1-133	45
"Take Down"	1-142	45
Teleport	1-063	1
Teleport	1-064	1
Teleport	1-065	1
Thrash	1-034	1
Thrash	1-056	39
Thrash	1-057	46
Thrash	1-104	38
Thrash	1-105	41
Thrash	1-124	47
Thunder	1-025	43
Thunder	1-125	54
Thunder	1-135	54
Thunder	1-145	51
"Thunder Wave"	1-025	9
"Thunder Wave"	1-026	1
"Thunder Wave"	1-081	35
"Thunder Wave"	1-082	38
"Thunder Wave"	1-135	40
"Thunder Wave"	1-147	10
"Thunder Wave"	1-148	1
"Thunder Wave"	1-149	1
ThunderPunch	1-107	43
ThunderPunch	1-125	42
ThunderShock	1-025	1
ThunderShock	1-026	1
ThunderShock	1-081	25
ThunderShock	1-082	1
ThunderShock	1-125	34
ThunderShock	1-135	1
ThunderShock	1-145	1
Transform	1-132	1
Transform	1-151	10

"Tri Attack"	1-084	40
"Tri Attack"	1-085	45
"Tri Attack"	1-137	42
Twineedle	1-015	20
ViceGrip	1-098	20
ViceGrip	1-099	1
ViceGrip	1-127	1
"Vine Whip"	1-001	13
"Vine Whip"	1-002	13
"Vine Whip"	1-003	1
"Vine Whip"	1-069	1
"Vine Whip"	1-070	1
"Water Gun"	1-007	15
"Water Gun"	1-008	15
"Water Gun"	1-009	1
"Water Gun"	1-060	19
"Water Gun"	1-061	1
"Water Gun"	1-062	1
"Water Gun"	1-072	22
"Water Gun"	1-073	22
"Water Gun"	1-079	33
"Water Gun"	1-080	33
"Water Gun"	1-116	30
"Water Gun"	1-117	30
"Water Gun"	1-120	17
"Water Gun"	1-121	1
"Water Gun"	1-131	1
"Water Gun"	1-134	1
"Water Gun"	1-138	1
"Water Gun"	1-139	1
Waterfall	1-118	37
Waterfall	1-119	39
Whirlwind	1-012	26
Whirlwind	1-016	19
Whirlwind	1-017	21
Whirlwind	1-018	21
"Wing Attack"	1-016	28
"Wing Attack"	1-017	31
"Wing Attack"	1-018	31
"Wing Attack"	1-041	28
"Wing Attack"	1-042	32
"Wing Attack"	1-142	1

Withdraw	1-007	28
Withdraw	1-008	31
Withdraw	1-009	31
Withdraw	1-080	37
Withdraw	1-090	1
Withdraw	1-091	1
Withdraw	1-138	1
Withdraw	1-139	1
Wrap	1-023	1
Wrap	1-024	1
Wrap	1-069	13
Wrap	1-070	1
Wrap	1-071	13
Wrap	1-072	13
Wrap	1-073	1
Wrap	1-108	1
Wrap	1-147	1
Wrap	1-148	1
Wrap	1-149	1

12. Accesses(MoveName, PokeID)

MoveName	PokeID
Bide	1-001
"Body Slam"	1-001
Cut	1-001
"Double Team"	1-001
Double-Edge	1-001
"Mega Drain"	1-001
Mimic	1-001
Rage	1-001
Reflect	1-001
Rest	1-001
SolarBeam	1-001
Substitute	1-001
"Swords Dance"	1-001
"Take Down"	1-001
Toxic	1-001
Bide	1-002
"Body Slam"	1-002
Cut	1-002
"Double Team"	1-002

Double-Edge	1-002
"Mega Drain"	1-002
Mimic	1-002
Rage	1-002
Reflect	1-002
Rest	1-002
SolarBeam	1-002
Substitute	1-002
"Swords Dance"	1-002
"Take Down"	1-002
Toxic	1-002
Bide	1-003
"Body Slam"	1-003
Cut	1-003
"Double Team"	1-003
Double-Edge	1-003
"Hyper Beam"	1-003
"Mega Drain"	1-003
Mimic	1-003
Rage	1-003
Reflect	1-003
Rest	1-003
SolarBeam	1-003
Substitute	1-003
"Swords Dance"	1-003
"Take Down"	1-003
Toxic	1-003
Bide	1-004
"Body Slam"	1-004
Counter	1-004
Cut	1-004
Dig	1-004
"Double Team"	1-004
Double-Edge	1-004
"Dragon Rage"	1-004
"Fire Blast"	1-004
"Mega Kick"	1-004
"Mega Punch"	1-004
Mimic	1-004
Rage	1-004
Reflect	1-004
Rest	1-004

"Seismic Toss"	1-004
"Skull Bash"	1-004
Strength	1-004
Submission	1-004
Substitute	1-004
Swift	1-004
"Swords Dance"	1-004
"Take Down"	1-004
Toxic	1-004
Bide	1-005
"Body Slam"	1-005
Counter	1-005
Cut	1-005
Dig	1-005
"Double Team"	1-005
Double-Edge	1-005
"Dragon Rage"	1-005
"Fire Blast"	1-005
"Mega Kick"	1-005
"Mega Punch"	1-005
Mimic	1-005
Rage	1-005
Reflect	1-005
Rest	1-005
"Seismic Toss"	1-005
"Skull Bash"	1-005
Strength	1-005
Submission	1-005
Substitute	1-005
Swift	1-005
"Swords Dance"	1-005
"Take Down"	1-005
Toxic	1-005
Bide	1-006
"Body Slam"	1-006
Counter	1-006
Cut	1-006
Dig	1-006
"Double Team"	1-006
Double-Edge	1-006
"Dragon Rage"	1-006
Earthquake	1-006

"Fire Blast"	1-006
Fissure	1-006
"Hyper Beam"	1-006
"Mega Kick"	1-006
"Mega Punch"	1-006
Mimic	1-006
Rage	1-006
Reflect	1-006
Rest	1-006
"Seismic Toss"	1-006
"Skull Bash"	1-006
Strength	1-006
Submission	1-006
Substitute	1-006
Swift	1-006
"Swords Dance"	1-006
"Take Down"	1-006
Toxic	1-006
Bide	1-007
Blizzard	1-007
"Body Slam"	1-007
BubbleBeam	1-007
Counter	1-007
Dig	1-007
"Double Team"	1-007
Double-Edge	1-007
"Ice Beam"	1-007
"Mega Kick"	1-007
"Mega Punch"	1-007
Mimic	1-007
Rage	1-007
Reflect	1-007
Rest	1-007
"Seismic Toss"	1-007
"Skull Bash"	1-007
Strength	1-007
Submission	1-007
Substitute	1-007
Surf	1-007
"Take Down"	1-007
Toxic	1-007
"Water Gun"	1-007

Bide	1-008
Blizzard	1-008
"Body Slam"	1-008
BubbleBeam	1-008
Counter	1-008
Dig	1-008
"Double Team"	1-008
Double-Edge	1-008
"Ice Beam"	1-008
"Mega Kick"	1-008
"Mega Punch"	1-008
Mimic	1-008
Rage	1-008
Reflect	1-008
Rest	1-008
"Seismic Toss"	1-008
"Skull Bash"	1-008
Strength	1-008
Submission	1-008
Substitute	1-008
Surf	1-008
"Take Down"	1-008
Toxic	1-008
"Water Gun"	1-008
Bide	1-009
Blizzard	1-009
"Body Slam"	1-009
BubbleBeam	1-009
Counter	1-009
Dig	1-009
"Double Team"	1-009
Double-Edge	1-009
Earthquake	1-009
Fissure	1-009
"Hyper Beam"	1-009
"Ice Beam"	1-009
"Mega Kick"	1-009
"Mega Punch"	1-009
Mimic	1-009
Rage	1-009
Reflect	1-009
Rest	1-009

"Seismic Toss"	1-009
"Skull Bash"	1-009
Strength	1-009
Submission	1-009
Substitute	1-009
Surf	1-009
"Take Down"	1-009
Toxic	1-009
"Water Gun"	1-009
Bide	1-012
"Double Team"	1-012
Double-Edge	1-012
Flash	1-012
"Hyper Beam"	1-012
"Mega Drain"	1-012
Mimic	1-012
Psychic	1-012
Psywave	1-012
Rage	1-012
"Razor Wind"	1-012
Reflect	1-012
Rest	1-012
SolarBeam	1-012
Substitute	1-012
Swift	1-012
"Take Down"	1-012
Teleport	1-012
Toxic	1-012
Whirlwind	1-012
Bide	1-015
Cut	1-015
"Double Team"	1-015
Double-Edge	1-015
"Hyper Beam"	1-015
"Mega Drain"	1-015
Mimic	1-015
Rage	1-015
Reflect	1-015
Rest	1-015
"Skull Bash"	1-015
Substitute	1-015
Swift	1-015

"Swords Dance"	1-015
"Take Down"	1-015
Toxic	1-015
Bide	1-016
"Double Team"	1-016
Double-Edge	1-016
Fly	1-016
Mimic	1-016
Rage	1-016
"Razor Wind"	1-016
Reflect	1-016
Rest	1-016
"Sky Attack"	1-016
Substitute	1-016
Swift	1-016
"Take Down"	1-016
Toxic	1-016
Whirlwind	1-016
Bide	1-017
"Double Team"	1-017
Double-Edge	1-017
Fly	1-017
Mimic	1-017
Rage	1-017
"Razor Wind"	1-017
Reflect	1-017
Rest	1-017
"Sky Attack"	1-017
Substitute	1-017
Swift	1-017
"Take Down"	1-017
Toxic	1-017
Whirlwind	1-017
Bide	1-018
"Double Team"	1-018
Double-Edge	1-018
Fly	1-018
"Hyper Beam"	1-018
Mimic	1-018
Rage	1-018
"Razor Wind"	1-018
Reflect	1-018

Rest	1-018
"Sky Attack"	1-018
Substitute	1-018
Swift	1-018
"Take Down"	1-018
Toxic	1-018
Whirlwind	1-018
Bide	1-019
Blizzard	1-019
"Body Slam"	1-019
BubbleBeam	1-019
Dig	1-019
"Double Team"	1-019
Double-Edge	1-019
Mimic	1-019
Rage	1-019
Rest	1-019
"Skull Bash"	1-019
Substitute	1-019
Swift	1-019
"Take Down"	1-019
Thunder	1-019
Thunderbolt	1-019
Toxic	1-019
"Water Gun"	1-019
Bide	1-020
Blizzard	1-020
"Body Slam"	1-020
BubbleBeam	1-020
Dig	1-020
"Double Team"	1-020
Double-Edge	1-020
"Hyper Beam"	1-020
"Ice Beam"	1-020
Mimic	1-020
Rage	1-020
Rest	1-020
"Skull Bash"	1-020
Substitute	1-020
Swift	1-020
"Take Down"	1-020
Thunder	1-020

Thunderbolt	1-020
Toxic	1-020
"Water Gun"	1-020
Bide	1-021
"Double Team"	1-021
Double-Edge	1-021
Fly	1-021
Mimic	1-021
Rage	1-021
"Razor Wind"	1-021
Rest	1-021
"Sky Attack"	1-021
Substitute	1-021
Swift	1-021
"Take Down"	1-021
Toxic	1-021
Whirlwind	1-021
Bide	1-022
"Double Team"	1-022
Double-Edge	1-022
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"Hyper Beam"	1-022
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"Razor Wind"	1-022
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"Body Slam"	1-023
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"Double Team"	1-023
Double-Edge	1-023
Earthquake	1-023
Fissure	1-023
"Mega Drain"	1-023
Mimic	1-023
Rage	1-023

Rest	1-023
"Rock Slide"	1-023
"Skull Bash"	1-023
Strength	1-023
Substitute	1-023
"Take Down"	1-023
Toxic	1-023
Bide	1-024
"Body Slam"	1-024
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"Double Team"	1-024
Double-Edge	1-024
Earthquake	1-024
Fissure	1-024
"Hyper Beam"	1-024
"Mega Drain"	1-024
Mimic	1-024
Rage	1-024
Rest	1-024
"Rock Slide"	1-024
"Skull Bash"	1-024
Strength	1-024
Substitute	1-024
"Take Down"	1-024
Toxic	1-024
Bide	1-025
"Body Slam"	1-025
"Double Team"	1-025
Double-Edge	1-025
Flash	1-025
"Mega Kick"	1-025
"Mega Punch"	1-025
Mimic	1-025
"Pay Day"	1-025
Rage	1-025
Reflect	1-025
Rest	1-025
"Seismic Toss"	1-025
"Skull Bash"	1-025
Submission	1-025
Substitute	1-025
Swift	1-025

"Take Down"	1-025
Thunder	1-025
"Thunder Wave"	1-025
Thunderbolt	1-025
Toxic	1-025
Bide	1-026
"Body Slam"	1-026
"Double Team"	1-026
Double-Edge	1-026
Flash	1-026
"Hyper Beam"	1-026
"Mega Kick"	1-026
"Mega Punch"	1-026
Mimic	1-026
"Pay Day"	1-026
Rage	1-026
Reflect	1-026
Rest	1-026
"Seismic Toss"	1-026
"Skull Bash"	1-026
Submission	1-026
Substitute	1-026
Swift	1-026
"Take Down"	1-026
Thunder	1-026
"Thunder Wave"	1-026
Thunderbolt	1-026
Toxic	1-026
Bide	1-027
"Body Slam"	1-027
Cut	1-027
Dig	1-027
"Double Team"	1-027
Double-Edge	1-027
Earthquake	1-027
Fissure	1-027
Mimic	1-027
Rage	1-027
Rest	1-027
"Rock Slide"	1-027
"Seismic Toss"	1-027
"Skull Bash"	1-027

Strength	1-027
Submission	1-027
Substitute	1-027
Swift	1-027
"Swords Dance"	1-027
"Take Down"	1-027
Toxic	1-027
Bide	1-028
"Body Slam"	1-028
Cut	1-028
Dig	1-028
"Double Team"	1-028
Double-Edge	1-028
Earthquake	1-028
Fissure	1-028
"Hyper Beam"	1-028
Mimic	1-028
Rage	1-028
Rest	1-028
"Rock Slide"	1-028
"Seismic Toss"	1-028
"Skull Bash"	1-028
Strength	1-028
Submission	1-028
Substitute	1-028
Swift	1-028
"Swords Dance"	1-028
"Take Down"	1-028
Toxic	1-028
Bide	1-029
Blizzard	1-029
"Body Slam"	1-029
"Double Team"	1-029
Double-Edge	1-029
Mimic	1-029
Rage	1-029
Reflect	1-029
Rest	1-029
"Skull Bash"	1-029
Substitute	1-029
"Take Down"	1-029
Thunder	1-029

Thunderbolt	1-029
Toxic	1-029
Bide	1-030
Blizzard	1-030
"Body Slam"	1-030
BubbleBeam	1-030
"Double Team"	1-030
Double-Edge	1-030
"Horn Drill"	1-030
"Ice Beam"	1-030
Mimic	1-030
Rage	1-030
Reflect	1-030
Rest	1-030
"Skull Bash"	1-030
Substitute	1-030
"Take Down"	1-030
Thunder	1-030
Thunderbolt	1-030
Toxic	1-030
"Water Gun"	1-030
Bide	1-031
Blizzard	1-031
"Body Slam"	1-031
BubbleBeam	1-031
Counter	1-031
"Double Team"	1-031
Double-Edge	1-031
Earthquake	1-031
"Fire Blast"	1-031
Fissure	1-031
"Horn Drill"	1-031
"Hyper Beam"	1-031
"Ice Beam"	1-031
"Mega Kick"	1-031
"Mega Punch"	1-031
Mimic	1-031
"Pay Day"	1-031
Rage	1-031
Reflect	1-031
Rest	1-031
"Rock Slide"	1-031

"Seismic Toss"	1-031
"Skull Bash"	1-031
Strength	1-031
Submission	1-031
Substitute	1-031
Surf	1-031
"Take Down"	1-031
Thunder	1-031
Thunderbolt	1-031
Toxic	1-031
"Water Gun"	1-031
Bide	1-032
Blizzard	1-032
"Body Slam"	1-032
"Double Team"	1-032
Double-Edge	1-032
"Horn Drill"	1-032
Mimic	1-032
Rage	1-032
Reflect	1-032
Rest	1-032
"Skull Bash"	1-032
Substitute	1-032
"Take Down"	1-032
Thunder	1-032
Thunderbolt	1-032
Toxic	1-032
Bide	1-033
Blizzard	1-033
"Body Slam"	1-033
BubbleBeam	1-033
"Double Team"	1-033
Double-Edge	1-033
"Horn Drill"	1-033
"Ice Beam"	1-033
Mimic	1-033
Rage	1-033
Reflect	1-033
Rest	1-033
"Skull Bash"	1-033
Substitute	1-033
"Take Down"	1-033

Thunder	1-033
Thunderbolt	1-033
Toxic	1-033
"Water Gun"	1-033
Bide	1-034
Blizzard	1-034
"Body Slam"	1-034
BubbleBeam	1-034
Counter	1-034
"Double Team"	1-034
Double-Edge	1-034
Earthquake	1-034
"Fire Blast"	1-034
Fissure	1-034
"Horn Drill"	1-034
"Hyper Beam"	1-034
"Ice Beam"	1-034
"Mega Kick"	1-034
"Mega Punch"	1-034
Mimic	1-034
"Pay Day"	1-034
Rage	1-034
Reflect	1-034
Rest	1-034
"Rock Slide"	1-034
"Seismic Toss"	1-034
"Skull Bash"	1-034
Strength	1-034
Submission	1-034
Substitute	1-034
Surf	1-034
"Take Down"	1-034
Thunder	1-034
Thunderbolt	1-034
Toxic	1-034
"Water Gun"	1-034
Bide	1-035
Blizzard	1-035
"Body Slam"	1-035
BubbleBeam	1-035
Counter	1-035
"Double Team"	1-035

Double-Edge	1-035
"Fire Blast"	1-035
Flash	1-035
"Ice Beam"	1-035
"Mega Kick"	1-035
"Mega Punch"	1-035
Metronome	1-035
Mimic	1-035
Psychic	1-035
Psywave	1-035
Rage	1-035
Reflect	1-035
Rest	1-035
"Seismic Toss"	1-035
"Skull Bash"	1-035
SolarBeam	1-035
Strength	1-035
Submission	1-035
Substitute	1-035
"Take Down"	1-035
Teleport	1-035
Thunder	1-035
"Thunder Wave"	1-035
Thunderbolt	1-035
Toxic	1-035
"Tri Attack"	1-035
"Water Gun"	1-035
Bide	1-036
Blizzard	1-036
"Body Slam"	1-036
BubbleBeam	1-036
Counter	1-036
"Double Team"	1-036
Double-Edge	1-036
"Fire Blast"	1-036
Flash	1-036
"Hyper Beam"	1-036
"Ice Beam"	1-036
"Mega Kick"	1-036
"Mega Punch"	1-036
Metronome	1-036
Mimic	1-036

Psychic	1-036
Psywave	1-036
Rage	1-036
Reflect	1-036
Rest	1-036
"Seismic Toss"	1-036
"Skull Bash"	1-036
SolarBeam	1-036
Strength	1-036
Submission	1-036
Substitute	1-036
"Take Down"	1-036
Teleport	1-036
Thunder	1-036
"Thunder Wave"	1-036
Thunderbolt	1-036
Toxic	1-036
"Tri Attack"	1-036
"Water Gun"	1-036
Bide	1-037
"Body Slam"	1-037
Dig	1-037
"Double Team"	1-037
Double-Edge	1-037
"Fire Blast"	1-037
Mimic	1-037
Rage	1-037
Reflect	1-037
Rest	1-037
"Skull Bash"	1-037
Substitute	1-037
Swift	1-037
"Take Down"	1-037
Toxic	1-037
Bide	1-038
"Body Slam"	1-038
Dig	1-038
"Double Team"	1-038
Double-Edge	1-038
"Fire Blast"	1-038
"Hyper Beam"	1-038
Mimic	1-038

Rage	1-038
Reflect	1-038
Rest	1-038
"Skull Bash"	1-038
Substitute	1-038
Swift	1-038
"Take Down"	1-038
Toxic	1-038
Bide	1-039
Blizzard	1-039
"Body Slam"	1-039
BubbleBeam	1-039
Counter	1-039
"Double Team"	1-039
Double-Edge	1-039
"Fire Blast"	1-039
Flash	1-039
"Ice Beam"	1-039
"Mega Kick"	1-039
"Mega Punch"	1-039
Mimic	1-039
Psychic	1-039
Psywave	1-039
Rage	1-039
Reflect	1-039
Rest	1-039
"Seismic Toss"	1-039
"Skull Bash"	1-039
SolarBeam	1-039
Strength	1-039
Submission	1-039
Substitute	1-039
"Take Down"	1-039
Teleport	1-039
Thunder	1-039
"Thunder Wave"	1-039
Thunderbolt	1-039
Toxic	1-039
"Tri Attack"	1-039
"Water Gun"	1-039
Bide	1-040
Blizzard	1-040

"Body Slam"	1-040
BubbleBeam	1-040
Counter	1-040
"Double Team"	1-040
Double-Edge	1-040
"Fire Blast"	1-040
Flash	1-040
"Hyper Beam"	1-040
"Ice Beam"	1-040
"Mega Kick"	1-040
"Mega Punch"	1-040
Mimic	1-040
Psychic	1-040
Psywave	1-040
Rage	1-040
Reflect	1-040
Rest	1-040
"Seismic Toss"	1-040
"Skull Bash"	1-040
SolarBeam	1-040
Strength	1-040
Submission	1-040
Substitute	1-040
"Take Down"	1-040
Teleport	1-040
Thunder	1-040
"Thunder Wave"	1-040
Thunderbolt	1-040
Toxic	1-040
"Tri Attack"	1-040
"Water Gun"	1-040
Bide	1-041
"Double Team"	1-041
Double-Edge	1-041
"Mega Drain"	1-041
Mimic	1-041
Rage	1-041
"Razor Wind"	1-041
Rest	1-041
Substitute	1-041
Swift	1-041
"Take Down"	1-041

Toxic	1-041
Whirlwind	1-041
Bide	1-042
"Double Team"	1-042
Double-Edge	1-042
"Hyper Beam"	1-042
"Mega Drain"	1-042
Mimic	1-042
Rage	1-042
"Razor Wind"	1-042
Rest	1-042
Substitute	1-042
Swift	1-042
"Take Down"	1-042
Toxic	1-042
Whirlwind	1-042
Bide	1-043
Cut	1-043
"Double Team"	1-043
Double-Edge	1-043
"Mega Drain"	1-043
Mimic	1-043
Rage	1-043
Reflect	1-043
Rest	1-043
SolarBeam	1-043
Substitute	1-043
"Swords Dance"	1-043
"Take Down"	1-043
Toxic	1-043
Bide	1-044
Cut	1-044
"Double Team"	1-044
Double-Edge	1-044
"Mega Drain"	1-044
Mimic	1-044
Rage	1-044
Reflect	1-044
Rest	1-044
SolarBeam	1-044
Substitute	1-044
"Swords Dance"	1-044

"Take Down"	1-044
Toxic	1-044
Bide	1-045
"Body Slam"	1-045
Cut	1-045
"Double Team"	1-045
Double-Edge	1-045
"Hyper Beam"	1-045
"Mega Drain"	1-045
Mimic	1-045
Rage	1-045
Reflect	1-045
Rest	1-045
SolarBeam	1-045
Substitute	1-045
"Swords Dance"	1-045
"Take Down"	1-045
Toxic	1-045
Bide	1-046
"Body Slam"	1-046
Cut	1-046
Dig	1-046
"Double Team"	1-046
Double-Edge	1-046
"Mega Drain"	1-046
Mimic	1-046
Rage	1-046
Reflect	1-046
Rest	1-046
"Skull Bash"	1-046
SolarBeam	1-046
Substitute	1-046
"Swords Dance"	1-046
"Take Down"	1-046
Toxic	1-046
Bide	1-047
"Body Slam"	1-047
Cut	1-047
Dig	1-047
"Double Team"	1-047
Double-Edge	1-047
"Hyper Beam"	1-047

"Mega Drain"	1-047
Mimic	1-047
Rage	1-047
Reflect	1-047
Rest	1-047
"Skull Bash"	1-047
SolarBeam	1-047
Substitute	1-047
"Swords Dance"	1-047
"Take Down"	1-047
Toxic	1-047
Bide	1-048
"Double Team"	1-048
Double-Edge	1-048
Flash	1-048
"Mega Drain"	1-048
Mimic	1-048
Psychic	1-048
Psywave	1-048
Rage	1-048
Reflect	1-048
Rest	1-048
SolarBeam	1-048
Substitute	1-048
"Take Down"	1-048
Toxic	1-048
Bide	1-049
"Double Team"	1-049
Double-Edge	1-049
Flash	1-049
"Hyper Beam"	1-049
"Mega Drain"	1-049
Mimic	1-049
Psychic	1-049
Psywave	1-049
Rage	1-049
"Razor Wind"	1-049
Reflect	1-049
Rest	1-049
SolarBeam	1-049
Substitute	1-049
Swift	1-049

"Take Down"	1-049
Teleport	1-049
Toxic	1-049
Whirlwind	1-049
Bide	1-050
"Body Slam"	1-050
Cut	1-050
Dig	1-050
"Double Team"	1-050
Double-Edge	1-050
Earthquake	1-050
Fissure	1-050
Mimic	1-050
Rage	1-050
Rest	1-050
"Rock Slide"	1-050
Substitute	1-050
"Take Down"	1-050
Toxic	1-050
Bide	1-051
"Body Slam"	1-051
Cut	1-051
Dig	1-051
"Double Team"	1-051
Double-Edge	1-051
Earthquake	1-051
Fissure	1-051
"Hyper Beam"	1-051
Mimic	1-051
Rage	1-051
Rest	1-051
"Rock Slide"	1-051
Substitute	1-051
"Take Down"	1-051
Toxic	1-051
Bide	1-052
"Body Slam"	1-052
BubbleBeam	1-052
"Double Team"	1-052
Double-Edge	1-052
Mimic	1-052
"Pay Day"	1-052

Rage	1-052
Rest	1-052
"Skull Bash"	1-052
Substitute	1-052
Swift	1-052
"Take Down"	1-052
Thunder	1-052
Thunderbolt	1-052
Toxic	1-052
"Water Gun"	1-052
Bide	1-053
"Body Slam"	1-053
BubbleBeam	1-053
"Double Team"	1-053
Double-Edge	1-053
"Hyper Beam"	1-053
Mimic	1-053
"Pay Day"	1-053
Rage	1-053
Rest	1-053
"Skull Bash"	1-053
Substitute	1-053
Swift	1-053
"Take Down"	1-053
Thunder	1-053
Thunderbolt	1-053
Toxic	1-053
"Water Gun"	1-053
Bide	1-054
Blizzard	1-054
"Body Slam"	1-054
BubbleBeam	1-054
Counter	1-054
Dig	1-054
"Double Team"	1-054
Double-Edge	1-054
"Ice Beam"	1-054
"Mega Kick"	1-054
"Mega Punch"	1-054
Mimic	1-054
"Pay Day"	1-054
Rage	1-054

Rest	1-054
"Seismic Toss"	1-054
"Skull Bash"	1-054
Strength	1-054
Submission	1-054
Substitute	1-054
Surf	1-054
Swift	1-054
"Take Down"	1-054
Toxic	1-054
"Water Gun"	1-054
Bide	1-055
Blizzard	1-055
"Body Slam"	1-055
BubbleBeam	1-055

13. BadgeLoads2(ObedienceLevel, BadgeName)

ObedienceLevel	BadgeName
20	"Boulder Badge"
30	"Cascade Badge"
100	"Earth Badge"
70	"Marsh Badge"
50	"Rainbow Badge"
60	"Soul Badge"
40	"Thunder Badge"
80	"Volcano Badge"

14. BadgeLoads1(BadgeID, **BadgeName**, **FileID**, **Email**)

BadgeID	BadgeName	FileID	Email
0-boulder	"Boulder Badge"	0	matthewasmith442@gmail.com
0-cascade	"Cascade Badge"	0	matthewasmith442@gmail.com
0-earth	"Soul Badge"	0	matthewasmith442@gmail.com
0-marsh	"Soul Badge"	0	matthewasmith442@gmail.com
0-rainbow	"Rainbow Badge"	0	matthewasmith442@gmail.com
0-soul	"Soul Badge"	0	matthewasmith442@gmail.com
0-thunder	"Thunder Badge"	0	matthewasmith442@gmail.com
0-volcano	"Soul Badge"	0	matthewasmith442@gmail.com

15. Generation(GenerationNumber, Console)

Generation	Console
1	"Game Boy"
2	"Game Boy Color"
3	"Game Boy Advance"
4	"Nintendo DS"
5	"Nintendo DS"
6	"Nintendo 3DS"

16. PokemonGameCategorizes2(ReleaseDate, SalePrice)

ReleaseDate	SalePrice
2004-01-29	39.99
2004-09-16	34.99
2006-09-28	45.95
2010-09-18	34.99
2013-10-12	60.58

17. PokemonGameCategorizes1(Title, ReleaseDate, GenerationNumber)

Title	ReleaseDate	GenerationNumber
"Pokemon Black"	2010-09-18	5
"Pokemon Diamond"	2006-09-28	4
"Pokemon Emerald"	2004-01-29	3
"Pokemon FireRed"	2004-09-16	3
"Pokemon X"	2013-10-12	6

18. LocationFeaturesAccess2(IsRoute, HasTrainers)

IsRoute	HasTrainers
0	0
1	1

19. LocationFeaturesAccess3(RouteNumber, IsRoute)

RouteNumber	IsRoute
-1	0
1	1
2	1
3	1
4	1
5	1
6	1
7	1

8	1
9	1
10	1
11	1
12	1
13	1
14	1
15	1
16	1
17	1
18	1
19	1
20	1
21	1
22	1
23	1
24	1
25	1
26	1
27	1
28	1

20. LocationFeaturesAccess1(Address, **BadgeID**, **Title**, **RouteNumber**)

Address	BadgeID	Title	RouteNumber
100	20	Grass	SPECIAL
100	40	Poison	PHYSICAL
-1	-1	Poison	STATUS
-1	-1	Psychic	STATUS
-1	-1	Psychic	STATUS
100	65	Ice	SPECIAL
85	15	Normal	PHYSICAL
-1	-1	Psychic	STATUS
-1	-1	Normal	PHYSICAL
75	15	Normal	PHYSICAL
100	60	Normal	PHYSICAL
90	120	Ice	SPECIAL
100	85	Normal	PHYSICAL
85	65	Ground	PHYSICAL
90	50	Ground	PHYSICAL
100	20	Water	SPECIAL
100	65	Water	SPECIAL

75	35	Water	SPECIAL
85	18	Normal	PHYSICAL
100	-1	Ghost	STATUS
100	50	Psychic	SPECIAL
100	10	Normal	PHYSICAL
-1	-1	Normal	STATUS
100	-1	Fighting	PHYSICAL
85	90	Water	SPECIAL
95	50	Normal	PHYSICAL
-1	-1	Normal	STATUS
100	100	Ground	PHYSICAL
55	-1	Normal	STATUS
100	70	Normal	PHYSICAL
100	30	Fighting	PHYSICAL
-1	-1	Normal	STATUS
100	100	Normal	PHYSICAL
85	15	Normal	PHYSICAL
100	-1	Dragon	SPECIAL
100	100	Psychic	SPECIAL
100	80	Flying	PHYSICAL
100	100	Ground	PHYSICAL
75	100	Normal	PHYSICAL
100	40	Fire	SPECIAL
100	170	Normal	PHYSICAL
85	120	Fire	SPECIAL
100	75	Fire	SPECIAL
70	15	Fire	SPECIAL
30	-1	Ground	PHYSICAL
100	95	Fire	SPECIAL
70	-1	Normal	STATUS
95	70	Flying	PHYSICAL
-1	-1	Normal	STATUS
85	15	Normal	PHYSICAL
80	18	Normal	PHYSICAL
75	-1	Normal	STATUS
100	-1	Normal	STATUS
-1	-1	Normal	STATUS
30	-1	Normal	PHYSICAL
100	40	Normal	PHYSICAL
-1	-1	Normal	STATUS
-1	-1	Ice	STATUS
100	70	Normal	PHYSICAL

90	85	Fighting	PHYSICAL
100	65	Normal	PHYSICAL
30	-1	Normal	PHYSICAL
80	120	Water	SPECIAL
90	150	Normal	PHYSICAL
90	80	Normal	PHYSICAL
60	-1	Psychic	STATUS
100	95	Ice	SPECIAL
100	75	Ice	SPECIAL
95	70	Fighting	PHYSICAL
100	50	Normal	PHYSICAL
100	20	Bug	PHYSICAL
90	-1	Grass	STATUS
100	-1	Normal	STATUS
100	20	Ghost	PHYSICAL
-1	-1	Psychic	STATUS
75	-1	Normal	STATUS
90	50	Fighting	PHYSICAL
-1	-1	Psychic	STATUS
100	40	Grass	SPECIAL
75	120	Normal	PHYSICAL
85	80	Normal	PHYSICAL
-1	-1	Normal	STATUS
100	-1	Normal	STATUS
-1	-1	Normal	STATUS
-1	-1	Flying	STATUS
-1	-1	Ice	STATUS
100	-1	Ghost	PHYSICAL
100	40	Normal	PHYSICAL
100	35	Flying	PHYSICAL
100	70	Grass	SPECIAL
85	14	Bug	PHYSICAL
55	-1	Poison	STATUS
100	15	Poison	PHYSICAL
75	-1	Poison	STATUS
100	40	Normal	PHYSICAL
100	65	Psychic	SPECIAL
100	90	Psychic	SPECIAL
80	-1	Psychic	SPECIAL
100	40	Normal	PHYSICAL
100	20	Normal	PHYSICAL
95	55	Grass	SPECIAL

75	80	Normal	PHYSICAL
-1	-1	Normal	STATUS
-1	-1	Psychic	STATUS
-1	-1	Psychic	STATUS
100	-1	Normal	STATUS
90	75	Rock	PHYSICAL
65	50	Rock	PHYSICAL
85	60	Fighting	PHYSICAL
100	-1	Normal	STATUS
100	40	Normal	PHYSICAL
85	-1	Normal	STATUS
100	-1	Fighting	PHYSICAL
100	130	Normal	PHYSICAL
-1	-1	Normal	STATUS
55	-1	Normal	STATUS
100	100	Normal	PHYSICAL
90	140	Flying	PHYSICAL
75	80	Normal	PHYSICAL
100	70	Normal	PHYSICAL
75	-1	Grass	STATUS
100	65	Poison	PHYSICAL
70	20	Poison	PHYSICAL
100	-1	Normal	STATUS
-1	-1	Normal	STATUS
100	120	Grass	SPECIAL
90	-1	Normal	PHYSICAL
100	20	Normal	PHYSICAL
-1	-1	Normal	STATUS
100	-1	Grass	STATUS
100	65	Normal	PHYSICAL
100	80	Normal	PHYSICAL
95	-1	Bug	STATUS
75	-1	Grass	STATUS
80	80	Fighting	PHYSICAL
-1	-1	Normal	STATUS
90	-1	Normal	PHYSICAL
55	-1	Normal	STATUS
100	95	Water	SPECIAL
100	60	Normal	PHYSICAL
-1	-1	Normal	STATUS
95	35	Normal	PHYSICAL
100	-1	Normal	STATUS

85	90	Normal	PHYSICAL
-1	-1	Psychic	STATUS
100	90	Normal	PHYSICAL
70	120	Electric	SPECIAL
100	-1	Electric	STATUS
100	95	Electric	SPECIAL
100	75	Electric	SPECIAL
100	40	Electric	SPECIAL
85	-1	Poison	STATUS
-1	-1	Normal	STATUS
100	80	Normal	PHYSICAL
100	25	Bug	PHYSICAL
100	55	Normal	PHYSICAL
100	35	Grass	SPECIAL
100	40	Water	SPECIAL
100	80	Water	SPECIAL
85	-1	Normal	STATUS
100	35	Flying	PHYSICAL
-1	-1	Water	STATUS
85	15	Normal	PHYSICAL

21. PokemonContains(**PokeID**, **Address**)

PokeID	Address
1-016	"Berry Forest"
1-017	"Berry Forest"
1-043	"Berry Forest"
1-044	"Berry Forest"
1-048	"Berry Forest"
1-049	"Berry Forest"
1-054	"Berry Forest"
1-055	"Berry Forest"
1-060	"Berry Forest"
1-096	"Berry Forest"
1-097	"Berry Forest"
1-102	"Berry Forest"
1-118	"Berry Forest"
1-119	"Berry Forest"
1-129	"Berry Forest"
1-130	"Berry Forest"
1-016	"Bond Bridge"
1-017	"Bond Bridge"

1-043	"Bond Bridge"
1-044	"Bond Bridge"
1-048	"Bond Bridge"
1-052	"Bond Bridge"
1-053	"Bond Bridge"
1-054	"Bond Bridge"
1-072	"Bond Bridge"
1-073	"Bond Bridge"
1-116	"Bond Bridge"
1-117	"Bond Bridge"
1-129	"Bond Bridge"
1-130	"Bond Bridge"
1-021	"Canyon Entrance"
1-022	"Canyon Entrance"
1-052	"Canyon Entrance"
1-053	"Canyon Entrance"
1-054	"Canyon Entrance"
1-021	"Cape Brink"
1-022	"Cape Brink"
1-043	"Cape Brink"
1-044	"Cape Brink"
1-052	"Cape Brink"
1-053	"Cape Brink"
1-054	"Cape Brink"
1-055	"Cape Brink"
1-060	"Cape Brink"
1-061	"Cape Brink"
1-118	"Cape Brink"
1-129	"Cape Brink"
1-130	"Cape Brink"
1-035	"Celadon City"
1-054	"Celadon City"
1-063	"Celadon City"
1-088	"Celadon City"
1-109	"Celadon City"
1-123	"Celadon City"
1-129	"Celadon City"
1-133	"Celadon City"
1-137	"Celadon City"
1-147	"Celadon City"
1-042	"Cerulean Cave"
1-047	"Cerulean Cave"

1-054	"Cerulean Cave"
1-055	"Cerulean Cave"
1-057	"Cerulean Cave"
1-060	"Cerulean Cave"
1-061	"Cerulean Cave"
1-064	"Cerulean Cave"
1-067	"Cerulean Cave"
1-074	"Cerulean Cave"
1-075	"Cerulean Cave"
1-082	"Cerulean Cave"
1-101	"Cerulean Cave"
1-118	"Cerulean Cave"
1-129	"Cerulean Cave"
1-130	"Cerulean Cave"
1-132	"Cerulean Cave"
1-150	"Cerulean Cave"
1-054	"Cerulean City"
1-072	"Cerulean City"
1-098	"Cerulean City"
1-116	"Cerulean City"
1-124	"Cerulean City"
1-129	"Cerulean City"
1-130	"Cerulean City"
1-054	"Cinnabar Island"
1-072	"Cinnabar Island"
1-086	"Cinnabar Island"
1-090	"Cinnabar Island"
1-098	"Cinnabar Island"
1-101	"Cinnabar Island"
1-114	"Cinnabar Island"
1-116	"Cinnabar Island"
1-117	"Cinnabar Island"
1-129	"Cinnabar Island"
1-130	"Cinnabar Island"
1-138	"Cinnabar Island"
1-140	"Cinnabar Island"
1-142	"Cinnabar Island"
1-050	"Digletts Cave"
1-051	"Digletts Cave"
1-054	"Five Island"
1-072	"Five Island"
1-073	"Five Island"

1-090	"Five Island"
1-116	"Five Island"
1-117	"Five Island"
1-129	"Five Island"
1-130	"Five Island"
1-016	"Five Isle Meadow"
1-017	"Five Isle Meadow"
1-052	"Five Isle Meadow"
1-053	"Five Isle Meadow"
1-054	"Five Isle Meadow"
1-072	"Five Isle Meadow"
1-073	"Five Isle Meadow"
1-116	"Five Isle Meadow"
1-117	"Five Isle Meadow"
1-129	"Five Isle Meadow"
1-130	"Five Isle Meadow"
1-054	"Four Island"
1-060	"Four Island"
1-061	"Four Island"
1-118	"Four Island"
1-129	"Four Island"
1-130	"Four Island"
1-054	"Fuchsia City"
1-060	"Fuchsia City"
1-118	"Fuchsia City"
1-119	"Fuchsia City"
1-129	"Fuchsia City"
1-130	"Fuchsia City"
1-054	"Green Path"
1-072	"Green Path"
1-073	"Green Path"
1-116	"Green Path"
1-117	"Green Path"
1-129	"Green Path"
1-130	"Green Path"
1-041	"Icefall Cave"
1-042	"Icefall Cave"
1-054	"Icefall Cave"
1-060	"Icefall Cave"
1-061	"Icefall Cave"
1-072	"Icefall Cave"
1-073	"Icefall Cave"

1-086	"Icefall Cave"
1-087	"Icefall Cave"
1-090	"Icefall Cave"
1-116	"Icefall Cave"
1-117	"Icefall Cave"
1-118	"Icefall Cave"
1-129	"Icefall Cave"
1-130	"Icefall Cave"
1-131	"Icefall Cave"
1-021	"Kindle Road"
1-022	"Kindle Road"
1-052	"Kindle Road"
1-053	"Kindle Road"
1-054	"Kindle Road"
1-072	"Kindle Road"
1-073	"Kindle Road"
1-074	"Kindle Road"
1-075	"Kindle Road"
1-077	"Kindle Road"
1-078	"Kindle Road"
1-116	"Kindle Road"
1-117	"Kindle Road"
1-129	"Kindle Road"
1-130	"Kindle Road"
1-041	"Lost Cave"
1-042	"Lost Cave"
1-092	"Lost Cave"
1-093	"Lost Cave"
1-054	"Memorial Pillar"
1-072	"Memorial Pillar"
1-073	"Memorial Pillar"
1-116	"Memorial Pillar"
1-117	"Memorial Pillar"
1-129	"Memorial Pillar"
1-130	"Memorial Pillar"
1-021	"Mt. Ember"
1-022	"Mt. Ember"
1-066	"Mt. Ember"
1-067	"Mt. Ember"
1-074	"Mt. Ember"
1-075	"Mt. Ember"
1-077	"Mt. Ember"

1-078	"Mt. Ember"
1-146	"Mt. Ember"
1-035	"Mt. Moon"
1-041	"Mt. Moon"
1-046	"Mt. Moon"
1-074	"Mt. Moon"
1-054	"One Island"
1-072	"One Island"
1-073	"One Island"
1-090	"One Island"
1-116	"One Island"
1-117	"One Island"
1-129	"One Island"
1-130	"One Island"
1-054	"Outcast Island"
1-072	"Outcast Island"
1-073	"Outcast Island"
1-116	"Outcast Island"
1-117	"Outcast Island"
1-129	"Outcast Island"
1-130	"Outcast Island"
1-001	"Pallet Town"
1-004	"Pallet Town"
1-007	"Pallet Town"
1-054	"Pallet Town"
1-072	"Pallet Town"
1-090	"Pallet Town"
1-098	"Pallet Town"
1-116	"Pallet Town"
1-117	"Pallet Town"
1-129	"Pallet Town"
1-130	"Pallet Town"
1-010	"Pattern Bush"
1-011	"Pattern Bush"
1-013	"Pattern Bush"
1-014	"Pattern Bush"
1-019	"Pokemon Mansion"
1-020	"Pokemon Mansion"
1-058	"Pokemon Mansion"
1-088	"Pokemon Mansion"
1-109	"Pokemon Mansion"
1-110	"Pokemon Mansion"

1-132	"Pokemon Mansion"
1-092	"Pokemon Tower"
1-093	"Pokemon Tower"
1-104	"Pokemon Tower"
1-025	"Power Plant"
1-081	"Power Plant"
1-082	"Power Plant"
1-100	"Power Plant"
1-125	"Power Plant"
1-145	"Power Plant"
1-054	"Resort Gorgeous"
1-072	"Resort Gorgeous"
1-073	"Resort Gorgeous"
1-116	"Resort Gorgeous"
1-117	"Resort Gorgeous"
1-129	"Resort Gorgeous"
1-130	"Resort Gorgeous"
1-041	"Rock Tunnel"
1-056	"Rock Tunnel"
1-066	"Rock Tunnel"
1-074	"Rock Tunnel"
1-075	"Rock Tunnel"
1-095	"Rock Tunnel"
1-016	"Route 1"
1-019	"Route 1"
1-021	"Route 10"
1-023	"Route 10"
1-054	"Route 10"
1-072	"Route 10"
1-098	"Route 10"
1-100	"Route 10"
1-116	"Route 10"
1-129	"Route 10"
1-130	"Route 10"
1-021	"Route 11"
1-023	"Route 11"
1-030	"Route 11"
1-054	"Route 11"
1-072	"Route 11"
1-096	"Route 11"
1-098	"Route 11"
1-116	"Route 11"

1-129	"Route 11"
1-130	"Route 11"
1-016	"Route 12"
1-043	"Route 12"
1-044	"Route 12"
1-048	"Route 12"
1-054	"Route 12"
1-072	"Route 12"
1-098	"Route 12"
1-116	"Route 12"
1-129	"Route 12"
1-130	"Route 12"
1-143	"Route 12"
1-016	"Route 13"
1-017	"Route 13"
1-043	"Route 13"
1-044	"Route 13"
1-048	"Route 13"
1-054	"Route 13"
1-072	"Route 13"
1-098	"Route 13"
1-116	"Route 13"
1-129	"Route 13"
1-130	"Route 13"
1-132	"Route 13"
1-016	"Route 14"
1-017	"Route 14"
1-043	"Route 14"
1-044	"Route 14"
1-048	"Route 14"
1-132	"Route 14"
1-016	"Route 15"
1-017	"Route 15"
1-043	"Route 15"
1-044	"Route 15"
1-048	"Route 15"
1-132	"Route 15"
1-019	"Route 16"
1-020	"Route 16"
1-021	"Route 16"
1-084	"Route 16"
1-143	"Route 16"

1-019	"Route 17"
1-020	"Route 17"
1-021	"Route 17"
1-022	"Route 17"
1-084	"Route 17"
1-019	"Route 18"
1-020	"Route 18"
1-021	"Route 18"
1-022	"Route 18"
1-084	"Route 18"
1-108	"Route 18"
1-054	"Route 19"
1-072	"Route 19"
1-098	"Route 19"
1-116	"Route 19"
1-129	"Route 19"
1-130	"Route 19"
1-010	"Route 2"
1-013	"Route 2"
1-016	"Route 2"
1-019	"Route 2"
1-122	"Route 2"
1-054	"Route 20"
1-072	"Route 20"
1-098	"Route 20"
1-116	"Route 20"
1-129	"Route 20"
1-130	"Route 20"
1-054	"Route 21"
1-072	"Route 21"
1-098	"Route 21"
1-114	"Route 21"
1-116	"Route 21"
1-129	"Route 21"
1-130	"Route 21"
1-019	"Route 22"
1-021	"Route 22"
1-054	"Route 22"
1-056	"Route 22"
1-060	"Route 22"
1-061	"Route 22"
1-118	"Route 22"

1-129	"Route 22"
1-130	"Route 22"
1-021	"Route 23"
1-022	"Route 23"
1-023	"Route 23"
1-024	"Route 23"
1-054	"Route 23"
1-056	"Route 23"
1-057	"Route 23"
1-060	"Route 23"
1-061	"Route 23"
1-118	"Route 23"
1-129	"Route 23"
1-130	"Route 23"
1-010	"Route 24"
1-011	"Route 24"
1-013	"Route 24"
1-014	"Route 24"
1-016	"Route 24"
1-043	"Route 24"
1-054	"Route 24"
1-063	"Route 24"
1-072	"Route 24"
1-098	"Route 24"
1-116	"Route 24"
1-129	"Route 24"
1-130	"Route 24"
1-010	"Route 25"
1-011	"Route 25"
1-013	"Route 25"
1-014	"Route 25"
1-016	"Route 25"
1-043	"Route 25"
1-054	"Route 25"
1-060	"Route 25"
1-061	"Route 25"
1-063	"Route 25"
1-118	"Route 25"
1-129	"Route 25"
1-130	"Route 25"
1-016	"Route 3"
1-021	"Route 3"

1-029	"Route 3"
1-032	"Route 3"
1-039	"Route 3"
1-056	"Route 3"
1-019	"Route 4"
1-021	"Route 4"
1-023	"Route 4"
1-054	"Route 4"
1-056	"Route 4"
1-072	"Route 4"
1-098	"Route 4"
1-116	"Route 4"
1-129	"Route 4"
1-130	"Route 4"
1-016	"Route 5"
1-029	"Route 5"
1-043	"Route 5"
1-052	"Route 5"
1-016	"Route 6"
1-043	"Route 6"
1-052	"Route 6"
1-054	"Route 6"
1-060	"Route 6"
1-061	"Route 6"
1-118	"Route 6"
1-129	"Route 6"
1-130	"Route 6"
1-016	"Route 7"
1-043	"Route 7"
1-052	"Route 7"
1-058	"Route 7"
1-016	"Route 8"
1-023	"Route 8"
1-052	"Route 8"
1-058	"Route 8"
1-019	"Route 9"
1-021	"Route 9"
1-023	"Route 9"
1-021	"Ruin Valley"
1-022	"Ruin Valley"
1-052	"Ruin Valley"
1-053	"Ruin Valley"

1-054	"Ruin Valley"
1-060	"Ruin Valley"
1-061	"Ruin Valley"
1-118	"Ruin Valley"
1-129	"Ruin Valley"
1-130	"Ruin Valley"
1-029	"Safari Zone"
1-030	"Safari Zone"
1-032	"Safari Zone"
1-033	"Safari Zone"
1-046	"Safari Zone"
1-047	"Safari Zone"
1-048	"Safari Zone"
1-049	"Safari Zone"
1-054	"Safari Zone"
1-060	"Safari Zone"
1-084	"Safari Zone"
1-102	"Safari Zone"
1-111	"Safari Zone"
1-113	"Safari Zone"
1-115	"Safari Zone"
1-118	"Safari Zone"
1-119	"Safari Zone"
1-123	"Safari Zone"
1-128	"Safari Zone"
1-129	"Safari Zone"
1-147	"Safari Zone"
1-148	"Safari Zone"
1-106	"Saffron City"
1-107	"Saffron City"
1-041	"Seafoam Islands"
1-042	"Seafoam Islands"
1-054	"Seafoam Islands"
1-055	"Seafoam Islands"
1-086	"Seafoam Islands"
1-087	"Seafoam Islands"
1-098	"Seafoam Islands"
1-116	"Seafoam Islands"
1-129	"Seafoam Islands"
1-130	"Seafoam Islands"
1-144	"Seafoam Islands"
1-022	"Sevault Canyon"

1-052	"Sevaul Canyon"
1-053	"Sevaul Canyon"
1-074	"Sevaul Canyon"
1-075	"Sevaul Canyon"
1-095	"Sevaul Canyon"
1-104	"Sevaul Canyon"
1-105	"Sevaul Canyon"
1-131	"Silph Co."
1-054	"Tanoby Ruins"
1-072	"Tanoby Ruins"
1-073	"Tanoby Ruins"
1-116	"Tanoby Ruins"
1-117	"Tanoby Ruins"
1-129	"Tanoby Ruins"
1-130	"Tanoby Ruins"
1-054	"Trainer Tower"
1-072	"Trainer Tower"
1-073	"Trainer Tower"
1-116	"Trainer Tower"
1-117	"Trainer Tower"
1-129	"Trainer Tower"
1-130	"Trainer Tower"
1-021	"Treasure Beach"
1-022	"Treasure Beach"
1-052	"Treasure Beach"
1-053	"Treasure Beach"
1-054	"Treasure Beach"
1-072	"Treasure Beach"
1-073	"Treasure Beach"
1-114	"Treasure Beach"
1-116	"Treasure Beach"
1-117	"Treasure Beach"
1-129	"Treasure Beach"
1-130	"Treasure Beach"
1-029	"Underground Path 5-6"
1-054	"Vermilion City"
1-072	"Vermilion City"
1-083	"Vermilion City"
1-090	"Vermilion City"
1-098	"Vermilion City"
1-116	"Vermilion City"
1-129	"Vermilion City"

1-130	"Vermilion City"
1-024	"Victory Road"
1-041	"Victory Road"
1-042	"Victory Road"
1-057	"Victory Road"
1-066	"Victory Road"
1-067	"Victory Road"
1-074	"Victory Road"
1-095	"Victory Road"
1-105	"Victory Road"
1-054	"Viridian City"
1-060	"Viridian City"
1-061	"Viridian City"
1-118	"Viridian City"
1-129	"Viridian City"
1-130	"Viridian City"
1-010	"Viridian Forest"
1-011	"Viridian Forest"
1-013	"Viridian Forest"
1-014	"Viridian Forest"
1-025	"Viridian Forest"
1-054	"Water Labyrinth"
1-072	"Water Labyrinth"
1-073	"Water Labyrinth"
1-116	"Water Labyrinth"
1-117	"Water Labyrinth"
1-129	"Water Labyrinth"
1-130	"Water Labyrinth"
1-021	"Water Path"
1-022	"Water Path"
1-043	"Water Path"
1-044	"Water Path"
1-052	"Water Path"
1-053	"Water Path"
1-054	"Water Path"
1-072	"Water Path"
1-073	"Water Path"
1-116	"Water Path"
1-117	"Water Path"
1-129	"Water Path"
1-130	"Water Path"

4 SQL Queries

The following queries use the dynamic query syntax outlined in the Milestone 4 project description. That is, `:variable_name` represents a dynamic value that is inserted at runtime into the query.

1. INSERT Operation:

```
INSERT INTO AppUser2 (MembershipLevel, Loyalty)
VALUES (:membership_level, :loyalty)

INSERT INTO AppUser1 (Email, Username, MembershipLevel)
VALUES (:email, :user_name, :membership_level)
```

These queries are used above to insert an `AppUser` into our system and database. In order to insert an `AppUser1`, because of the foreign key constraint, insertion into `AppUser2` is *sometimes* required.

This query can be found in `/pokedex-backend/backend/server/views.py` at lines 125 and 128.

2. DELETE Operation:

```
DELETE FROM AppUser1 WHERE Email = :email
```

This query allows a user to delete their account from the system. In doing so, this also deletes all of their associated save files, hence this causes a cascade-on-delete scenario.

This query can be found in `/pokedex-backend/backend/server/views.py` at lines 184.

3. UPDATE Operation:

```
UPDATE AppUser1
SET Username = :username, MembershipLevel = :new_level
WHERE Email = :email
```

This query allows a user to update their username, as well as their membership level. Updating a username comes from a user's own personal preference. Updating the membership level would correspond to the user donating money to the site, so as to earn exclusive perks. Both of these need to be able to be changed for a given `AppUser`. We note that `MembershipLevel` is a foreign key referencing the `AppUser2` relation, as desired.

This query can be found in `/pokedex-backend/backend/server/views.py` at lines 204 and 224.

4. Selection query:


```
SELECT ps1.PokemonName, ps2.PokeType, ps2.EggGroup, ps1.Ability
FROM PokemonStores1 ps1, PokemonStores2 ps2
WHERE ps1.PokemonName = ps2.PokemonName AND
(ps1.PokemonName LIKE ':%input1%' AND ps2.EggGroup EQUALS ':%input2'
OR ps1.Ability LIKE ':%input3' OR ps2.PokeType EQUALS ':%input4')
```

The exact query details vary based on the modifiers the user has selected. The above is a canonical example in which the user selected all columns to project upon, and selected some combination of constraints on all of the attributes. This query is helpful as a general use tool for a user to find Pokemon with various attributes.

This query can be found in `/pokedex-frontend/src/pages/Pokemon.tsx` at line 50.

5. Projection query:

```
SELECT p1.Title, p1.Generation, p1.ReleaseDate, g.Console, p2.SalePrice
FROM Generation g, PokemonGameCategorizes2 p2, PokemonGameCategorizes1 p1
WHERE g.GenerationNumber = p1.GenerationNumber
AND p2.ReleaseDate = p1.ReleaseDate
```

The exact query details vary based on the modifiers the user has selected. The above is a canonical example in which the user selected all columns to project upon. This query is useful for a user to find specific game information for the game that they're playing.

This query can be found in `/pokedex-frontend/src/pages/Game.tsx` at line 14.

6. Join query:

```
SELECT l.Address, p.PokemonName
FROM LocationFeaturesAccess1 l, PokemonStores1 p, PokemonContains pc
WHERE l.Address = pc.Address AND p.PokeID = pc.PokeID
AND l.Address LIKE ':%address_string%'
```

This query finds all of the Pokemon that can be found at the specified address. This is helpful for users to find the Pokemon currently available to them in the wild.

This query can be found in `/pokedex-frontend/src/pages/Location.tsx` at line 8.

7. Aggregation with GROUP BY:

```
SELECT m.MoveType, COUNT(*)
FROM Move1 m GROUP BY m.MoveType
```

This query finds the number of moves for each type. This is useful for a user when deciding how rare a specific move they're using is, and the value of keeping it on their

team members.

This query can be found in `/pokedex-frontend/src/pages/Move.tsx` at line 9.

8. Aggregation with HAVING:

```
SELECT m.MoveType, MAX(m.Power)
FROM Move1 m
GROUP BY m.MoveType
HAVING MAX(m.Power) >= 60
```

This query finds the move types that have a move with at least 60 power. This is useful for a user when deciding what types of moves to use for their team members.

This query can be found in `/pokedex-frontend/src/pages/Move.tsx` at line 18.

9. Nested Aggregation with GROUP BY:

```
WITH PokemonAvailableMoves AS (
  (SELECT p2.PokeType, p.PokemonName, m.MoveName, m.MoveType
   FROM PokemonStores1 p, Learns l,
        LevelMove lm, Move1 m, PokemonStores2 p2
   WHERE p.PokeID = l.PokeID AND l.MoveName = lm.MoveName
        AND lm.MoveName = m.MoveName AND p2.PokemonName = p.PokemonName)
  UNION
  (SELECT p2.PokeType, p.PokemonName, m.MoveName, m.MoveType
   FROM PokemonStores1 p, Accesses a,
        TMHMMove t, Move1 m, PokemonStores2 p2
   WHERE p.PokeID = a.PokeID AND a.MoveName = t.MoveName
        AND t.MoveName = m.MoveName AND p2.PokemonName = p.PokemonName))
SELECT p.PokemonName
FROM PokemonStores1 p
GROUP BY p.PokemonName
HAVING 9 <= (
  SELECT COUNT(DISTINCT pam.MoveType)
  FROM PokemonAvailableMoves pam
  WHERE pam.PokemonName = p.PokemonName)
```

This query finds the Pokemon who can learn at least 9 unique move types. This is useful for users who might be looking for Pokemon to add to their team with high type coverage.

This query can be found in `/pokedex-frontend/src/pages/Move.tsx` at line 29.

10. Division query:

```
SELECT p.PokemonName
FROM PokemonStores1 p
WHERE NOT EXISTS (
    (SELECT t.MoveName FROM TMHMMove t)
    EXCEPT
    (SELECT a.MoveName FROM Accesses a WHERE a.PokeID = p.PokeID))
```

This query finds the Pokemon who can learn all of the TM and HM moves. This is useful for users who want to have a Pokemon that has extremely high flexibility over what moves they can use on the battlefield.

This query can be found in `/pokedex-frontend/src/pages/Move.tsx` at line 54.

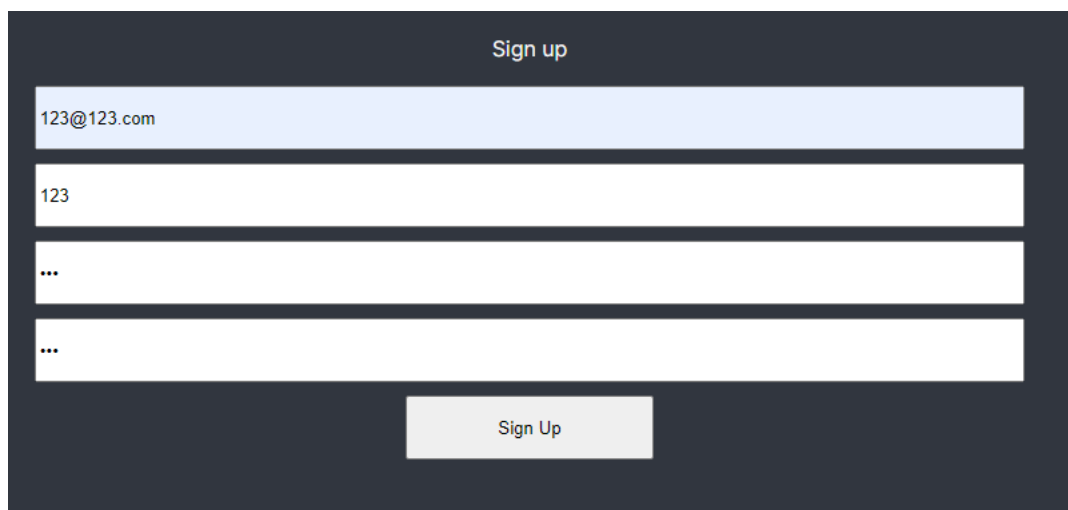
5 Query Screenshots

1. Insert

We will be creating a user for our application. This user will have an email address of 123@gmail.com. Here is the screenshot of the AppUser1 table before creating the user:

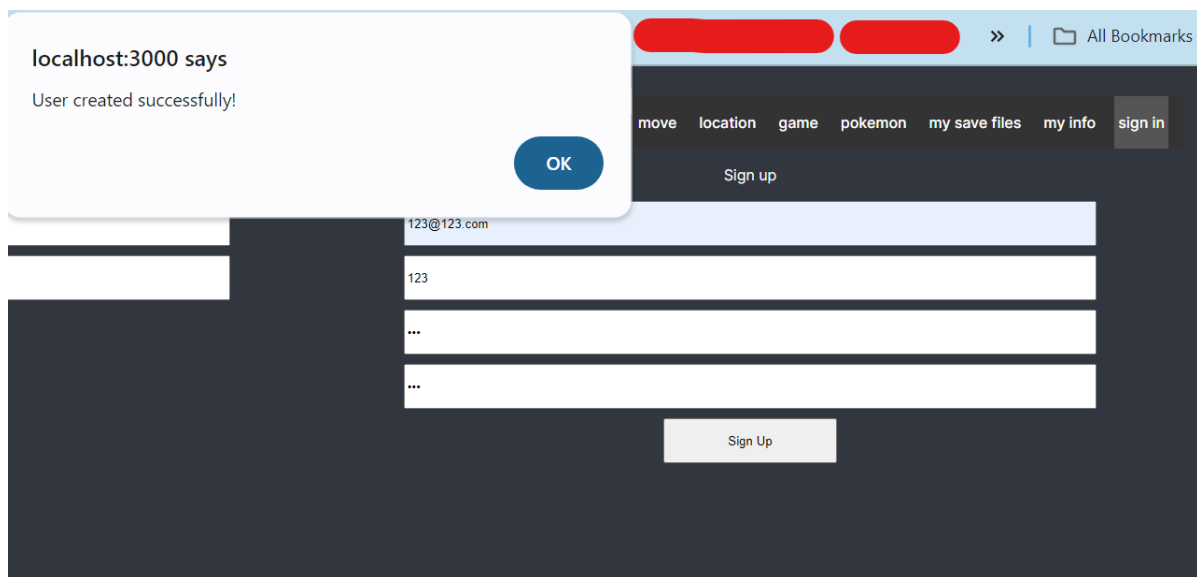
	Email	Username	MembershipLevel
▶	amanprakashburnett@gmail.com	aman	1
	billjones.com.com@gmail.com	matthew3	1
	matthewasmith@gmail.com	matthew	1
	test@gmail.com	first-account	1
	xx442boyxx@gmail.com	matthew2	1
★	NULL	NULL	NULL

This is the screenshot of the Sign Up form with fields filled in before clicking the “Sign Up” button:



The screenshot shows a dark-themed 'Sign up' form. It contains four input fields: the first is filled with '123@123.com', the second with '123', the third with '...', and the fourth with '...'. Below the fields is a light gray 'Sign Up' button.

This is a screenshot after clicking the 'Sign Up' button and a notification appears on the web page informing the user their account has been created:



Here is the screenshot of the AppUser1 table after creating the user:

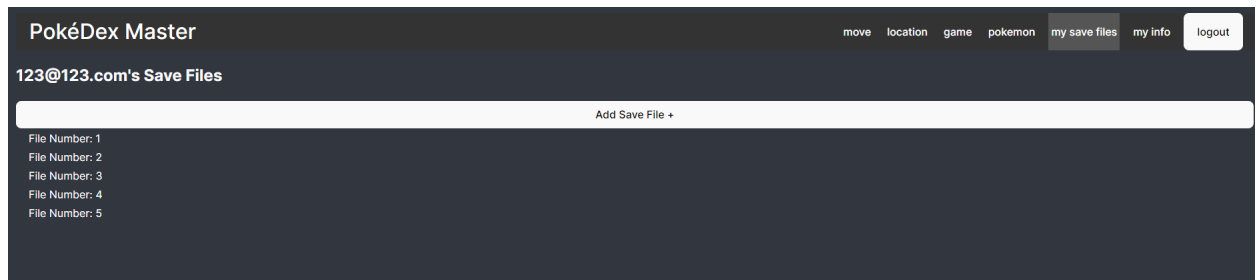
	Email	Username	MembershipLevel
▶	123@123.com	123	1 ←
	amanprakashburnett@gmail.com	aman	1
	billjones.com.com@gmail.com	matthew3	1
	matthewasmith@gmail.com	matthew	1
	test@gmail.com	first-account	1
	xx442boyxx@gmail.com	matthew2	1
*	NULL	NULL	NULL

2. Deletion

We will now show an example of a user deleting their account which causes it to be removed from the AppUser1 table. This action also removes any save files that the user managed before by deleting them from the SaveFileManages table via cascade-on-delete. Here is a screenshot of the SaveFileManages table:

	FileID	CreationDate	Email
▶	0	2024-04-05	123@123.com
	0	2024-03-01	amanprakashburnett@gmail.com
	1	2024-04-05	123@123.com
	1	2024-03-02	amanprakashburnett@gmail.com
	2	2024-04-05	123@123.com
	3	2024-04-05	123@123.com
	4	2024-04-05	123@123.com
*	NULL	NULL	NULL

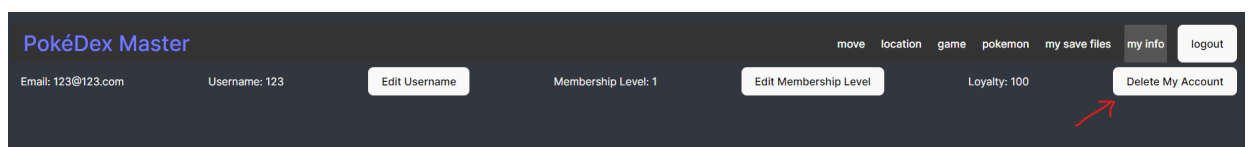
We can see that the email 123@gmail.com has 5 save files associated with it. Here is a screenshot of the GUI showing the save files the user has:



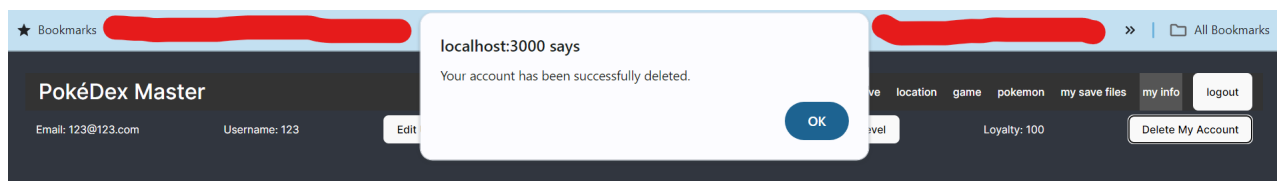
Here is a screenshot of the AppUser1 table before deleting the account with email address 123@gmail.com:

	Email	Username	MembershipLevel
▶	123@123.com	123	1
	amanprakashburnett@gmail.com	aman	1
	billjones.com.com@gmail.com	matthew3	1
	matthewasmith@gmail.com	matthew	1
	test@gmail.com	first-account	1
	xx442boyxx@gmail.com	matthew2	1
★	NULL	NULL	NULL

Here is a screenshot of the GUI where the user has the option to delete their account:



Here is the notification on the GUI telling the user they have deleted their account:



Now if we check the SaveFileManages and AppUser1 tables, we see that all the associated save files have been deleted and the user's account is no longer in the database:

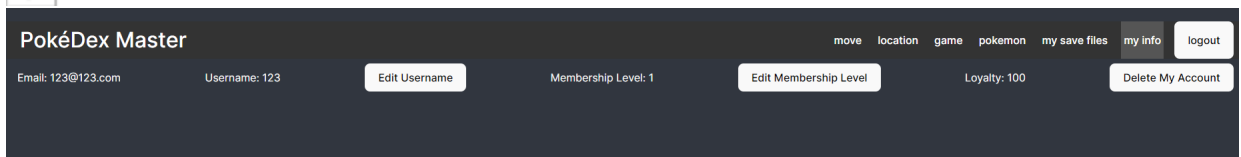
	FileID	CreationDate	Email
▶	0	2024-03-01	amanprakashburnett@gmail.com
	1	2024-03-02	amanprakashburnett@gmail.com
★	NULL	NULL	NULL

	Email	Username	MembershipLevel
▶	amanprakashburnett@gmail.com	aman	1
	billjones.com.com@gmail.com	matthew3	1
	matthewasmith@gmail.com	matthew	1
	test@gmail.com	first-account	1
	xx442boyxx@gmail.com	matthew2	1
★	NULL	NULL	NULL

3. Update

Now we will try to update the user's Username and Membership level using our application. Here we have screenshots of the AppUser1 table and the GUI displaying the user info of the account with the email address 123@gmail.com:

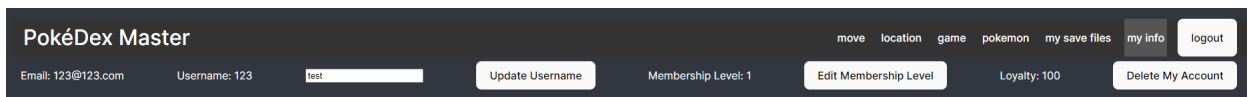
	Email	Username	MembershipLevel
▶	123@123.com	123	1 ←
	amanprakashburnett@gmail.com	aman	1
	billjones.com.com@gmail.com	matthew3	1
	matthewasmith@gmail.com	matthew	1
	test@gmail.com	first-account	1
	xx442boyxx@gmail.com	matthew2	1
★	NULL	NULL	NULL



PokéDex Master

Email: 123@123.com Username: 123 Edit Username Membership Level: 1 Edit Membership Level Loyalty: 100 Delete My Account

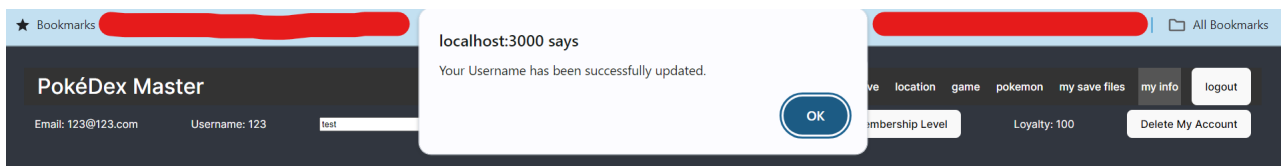
Here is the screenshot of the GUI in the process of updating the Username to 'test':



PokéDex Master

Email: 123@123.com Username: 123 test Update Username Membership Level: 1 Edit Membership Level Loyalty: 100 Delete My Account

Here is the screenshot of the GUI showing the user a notification that their Username has been updated:

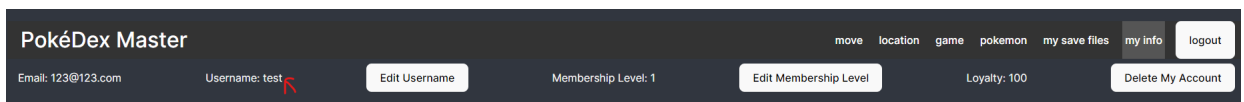


★ Bookmarks localhost:3000 says
Your Username has been successfully updated. OK

PokéDex Master

Email: 123@123.com Username: 123 test Update Username Membership Level: 1 Edit Membership Level Loyalty: 100 Delete My Account

Here is the screenshot of the GUI after updating the Username to 'test':



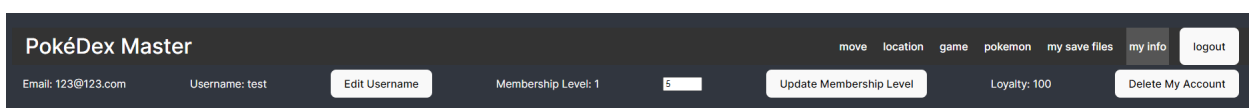
PokéDex Master

Email: 123@123.com Username: test Edit Username Membership Level: 1 Edit Membership Level Loyalty: 100 Delete My Account

Here is the screenshot of the AppUser1 table after updating the Username to 'test':

	Email	Username	MembershipLevel
▶	123@123.com	test ←	1
	amanprakashburnett@gmail.com	aman	1
	billjones.com.com@gmail.com	matthew3	1
	matthewasmith@gmail.com	matthew	1
	test@gmail.com	first-account	1
	xx442boyxx@gmail.com	matthew2	1
★	NULL	NULL	NULL

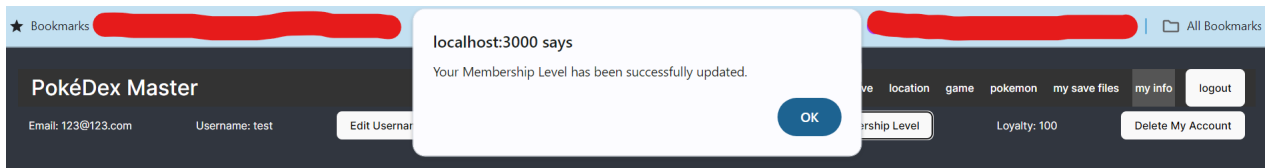
Now we will update the user's Membership level using our application. Here is the screenshot of the GUI in the process of updating the Membership level to 5:



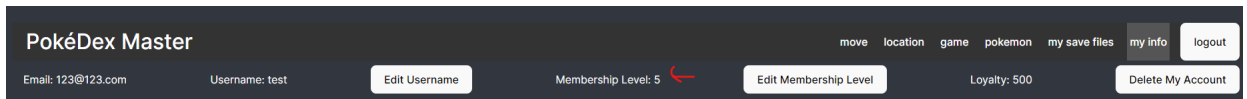
PokéDex Master

Email: 123@123.com Username: test Edit Username Membership Level: 1 5 Update Membership Level Loyalty: 100 Delete My Account

Here is the screenshot of the GUI showing the user a notification that their Membership level has been updated:



Here is the screenshot of the GUI after updating the Membership Level to 5:

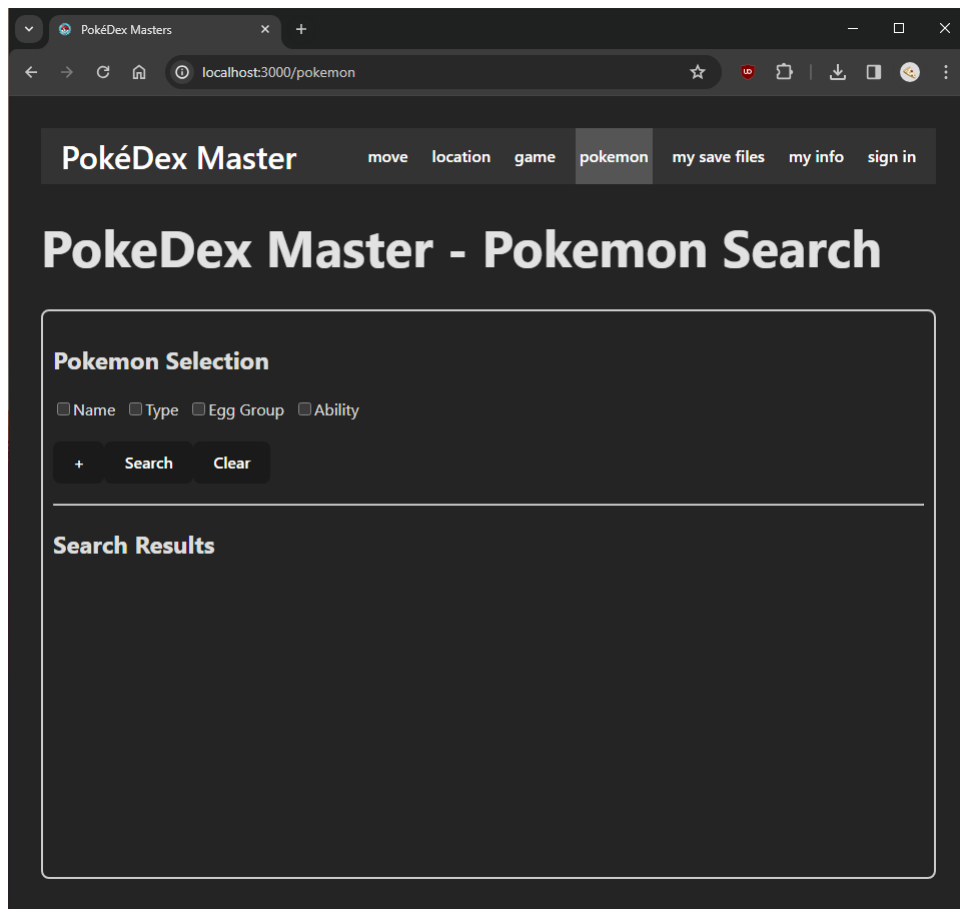


Here is the screenshot of the AppUser1 table after updating the Membership Level to 5:

	Email	Username	MembershipLevel
▶	123@123.com	test	5 ←
	amanprakashburnett@gmail.com	aman	1
	billjones.com.com@gmail.com	matthew3	1
	matthewasmith@gmail.com	matthew	1
	test@gmail.com	first-account	1
	xx442boyxx@gmail.com	matthew2	1
✱	NULL	NULL	NULL

4. Selection

To start, we navigate to the Pokemon page in the navigation bar,



Now, to initiate the query, we select various attributes to select on. Notice that we can string together many selections with AND or OR clauses,

The screenshot shows a web browser window with the URL `localhost:3000/pokemon`. The application has a dark theme and a navigation bar with links: `move`, `location`, `game`, `pokemon` (active), `my save files`, `my info`, and `sign in`. The main heading is **PokeDex Master - Pokemon Search**.

Pokemon Selection

☒ Name ☒ Type ☒ Egg Group ☒ Ability

Search Results

Name Type Egg-Group Ability

Name	Type	Egg-Group	Ability
------	------	-----------	---------

Finally, we see the outputted tuples in the search results section in the page,

The screenshot shows a web browser window with the URL `localhost:3000/pokemon`. The application has a dark theme and a navigation bar at the top with links: `move`, `location`, `game`, `pokemon` (active), `my save files`, `my info`, and `sign in`. The main heading is **PokeDex Master - Pokemon Search**.

Pokemon Selection

Search filters are enabled for ☒ Name, ☒ Type, ☒ Egg Group, and ☒ Ability. There are `+`, `Search`, and `Clear` buttons.

Search criteria are defined in three rows, each with a minus sign to remove it:

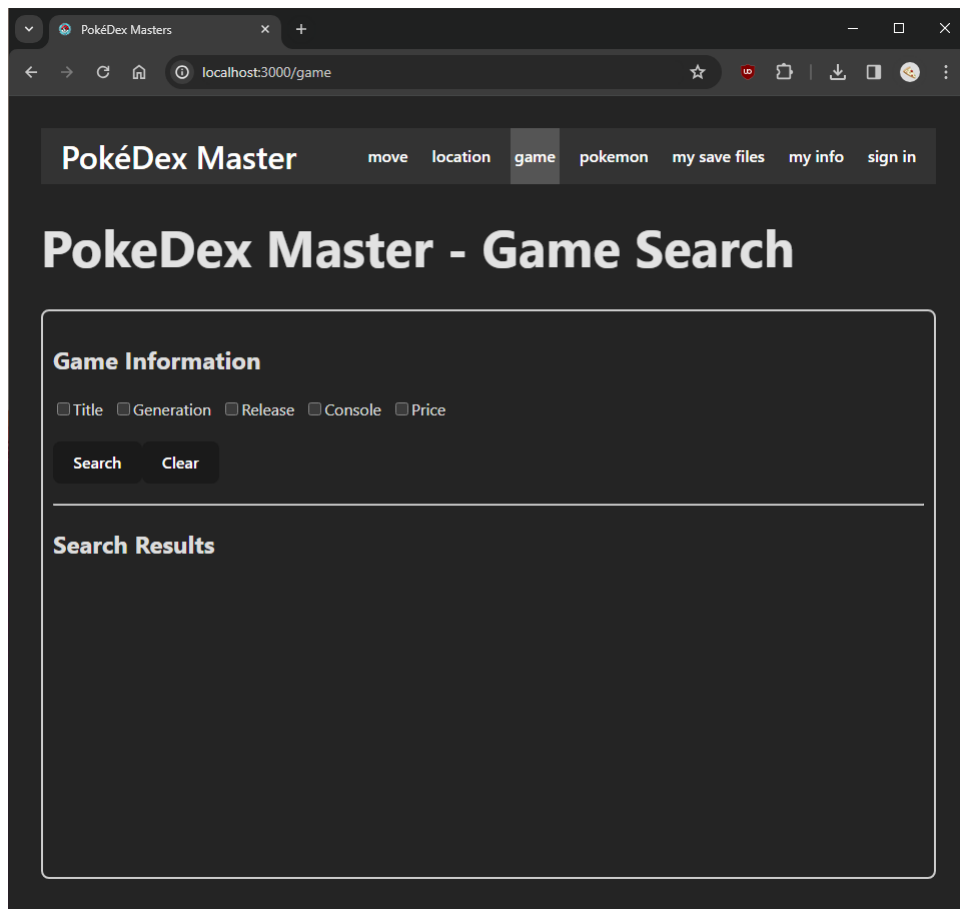
- Row 1: `Name` dropdown, `LIKE` dropdown, text input `ow`.
- Row 2: `AND` dropdown, `Egg Group` dropdown, `EQUALS` dropdown, text input `Flying`.
- Row 3: `OR` dropdown, `Type` dropdown, `LIKE` dropdown, text input `drag`.

Search Results

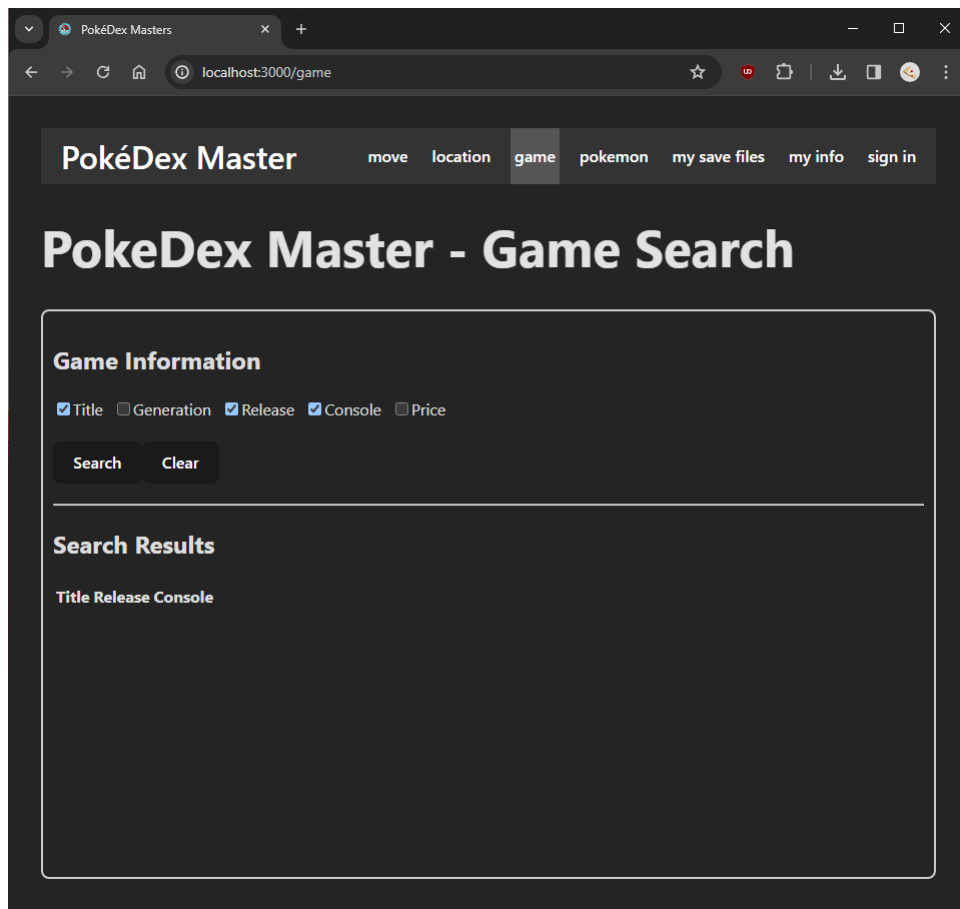
Name	Type	Egg-Group	Ability
Dragonair	Dragon	Dragon/Water 1	Shed Skin/Marvel Scale
Dragonite	Dragon/Flying	Dragon/Water 1	Inner Focus/Multiscale
Dratini	Dragon	Dragon/Water 1	Shed Skin/Marvel Scale
Fearow	Normal/Flying	Flying	Keen Eye/Sniper
Spearow	Normal/Flying	Flying	Keen Eye/Sniper

5. Projection

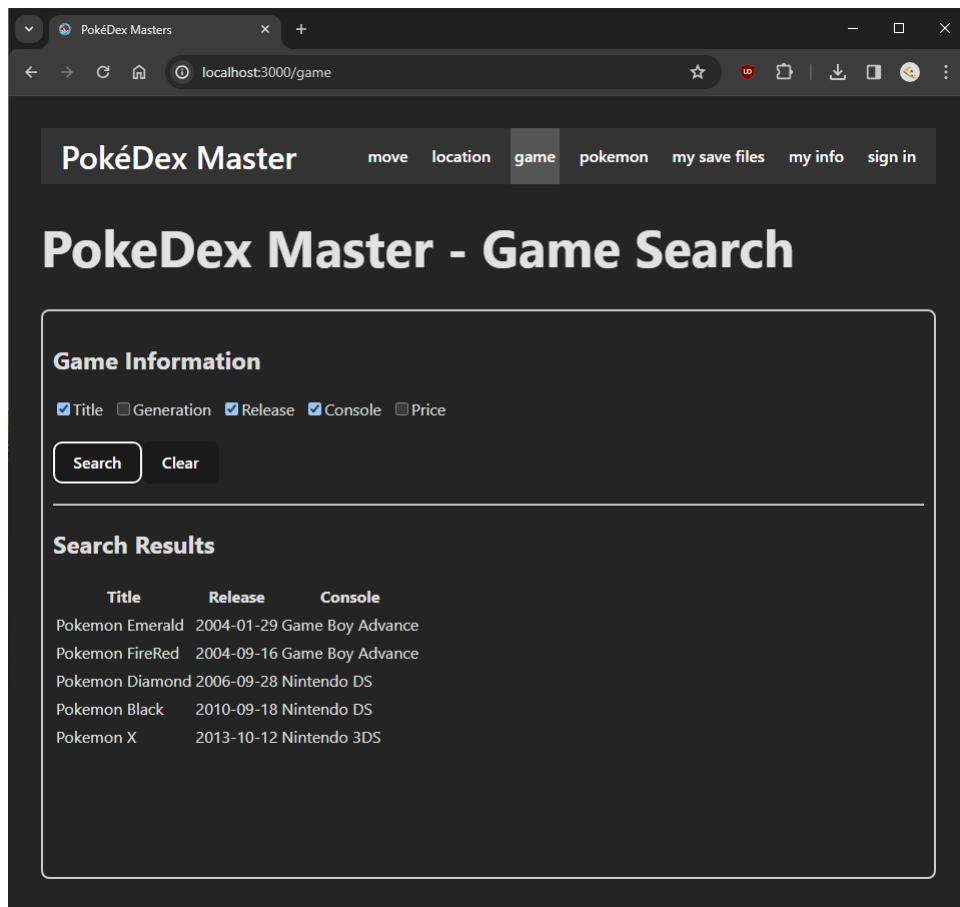
To start, we navigate to the Game page in the navigation bar,



Now, to initiate the query, we select various attributes to project upon,

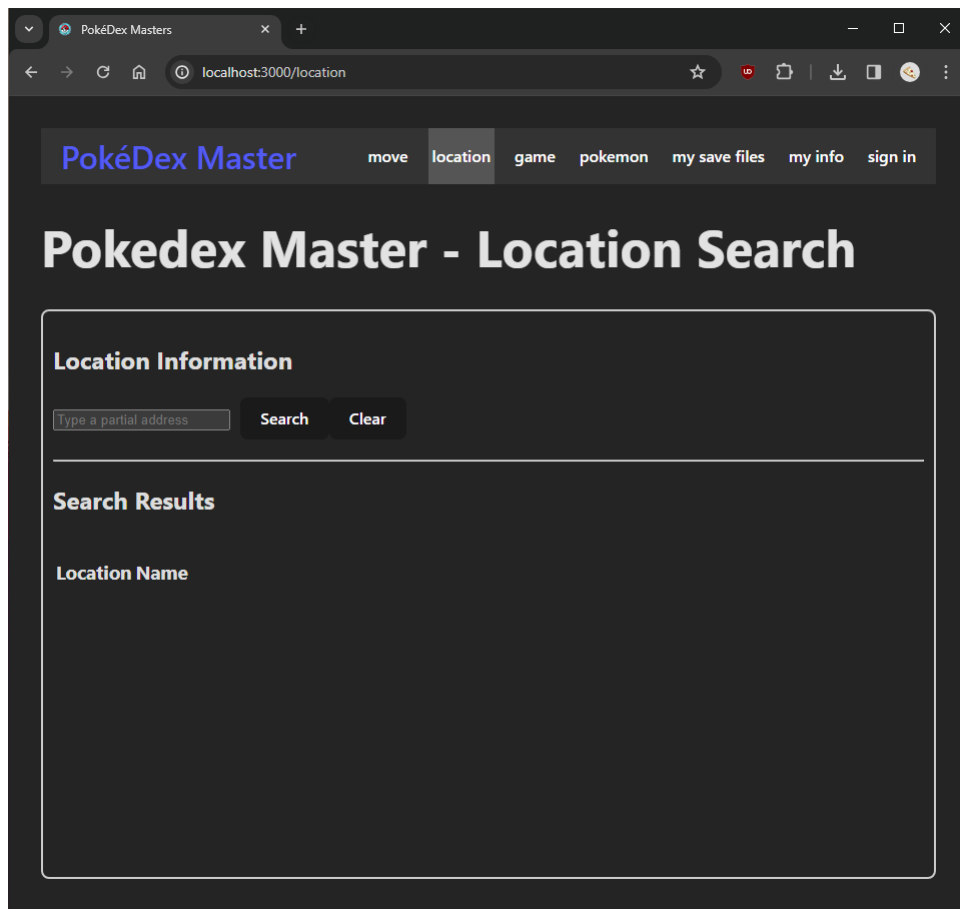


Finally, we see the outputted values in the search results section in the page,

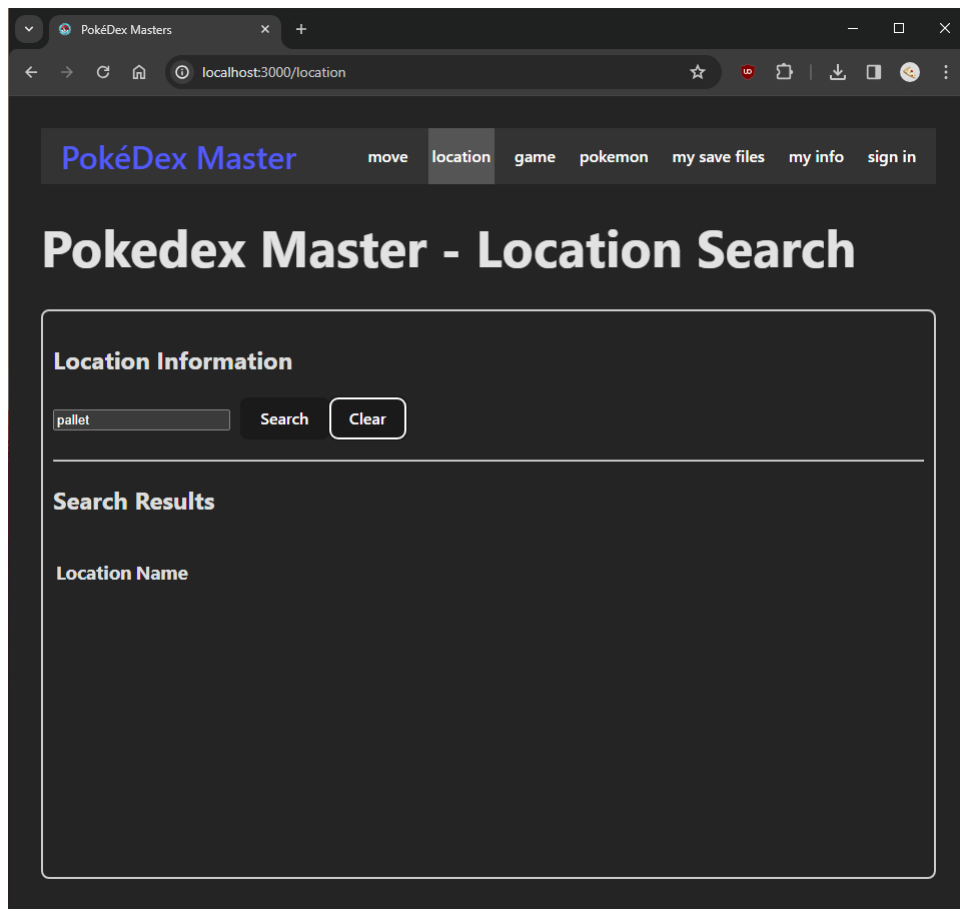


6. Join

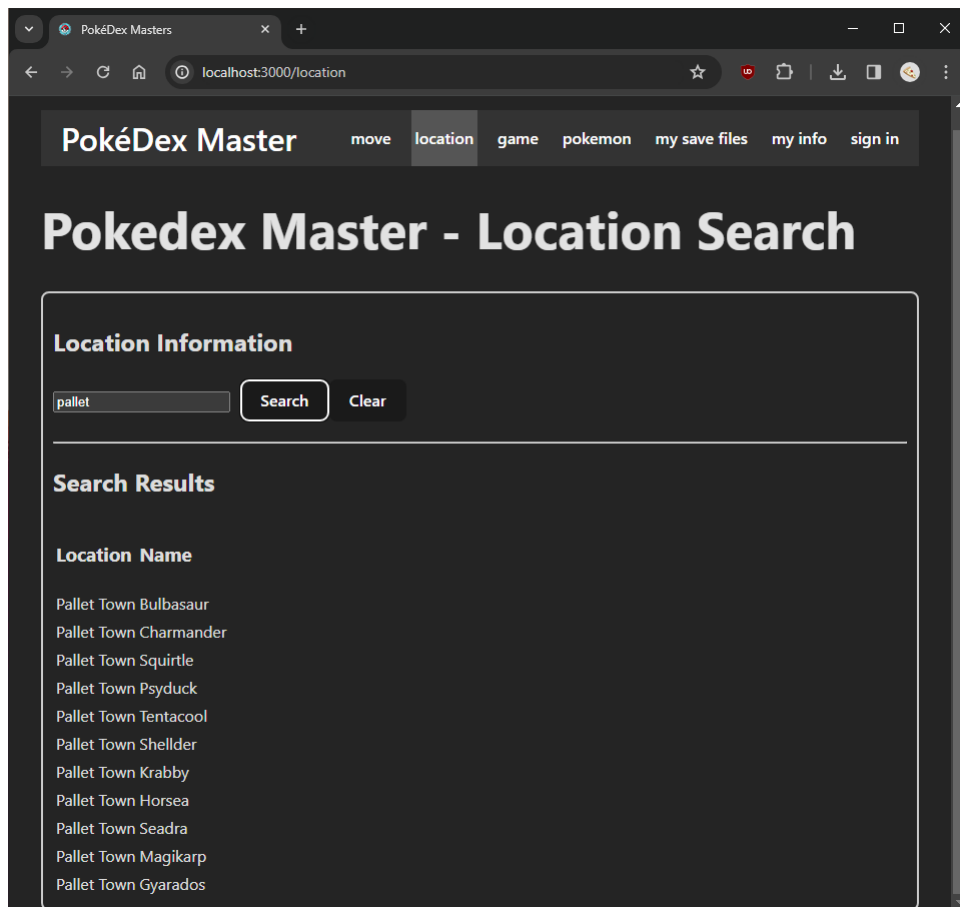
To start, we navigate to the Location page in the navigation bar,



Now, to initiate the query, we input an address to search for the Pokemon present at locations that match our input. Note that a join is required for this query because Locations have no information normally (without the PokemonContains relation) about what Pokemon exist there,

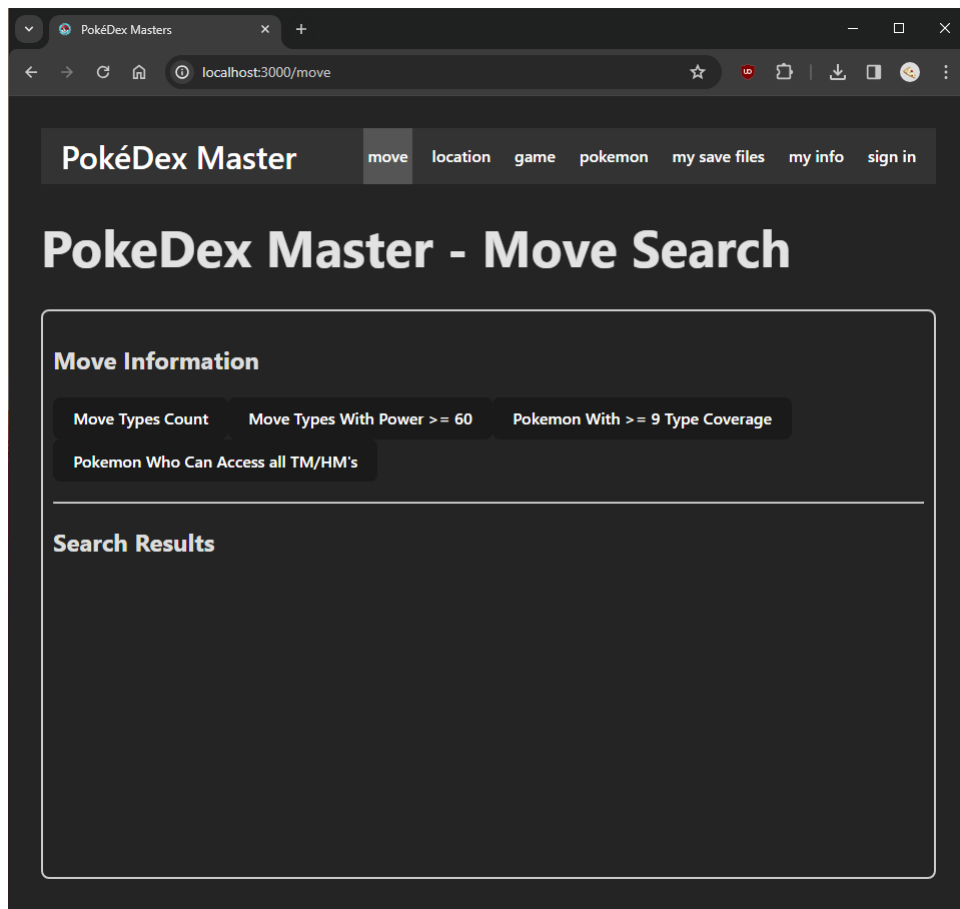


Finally, we see the outputted values in the search results section in the page,

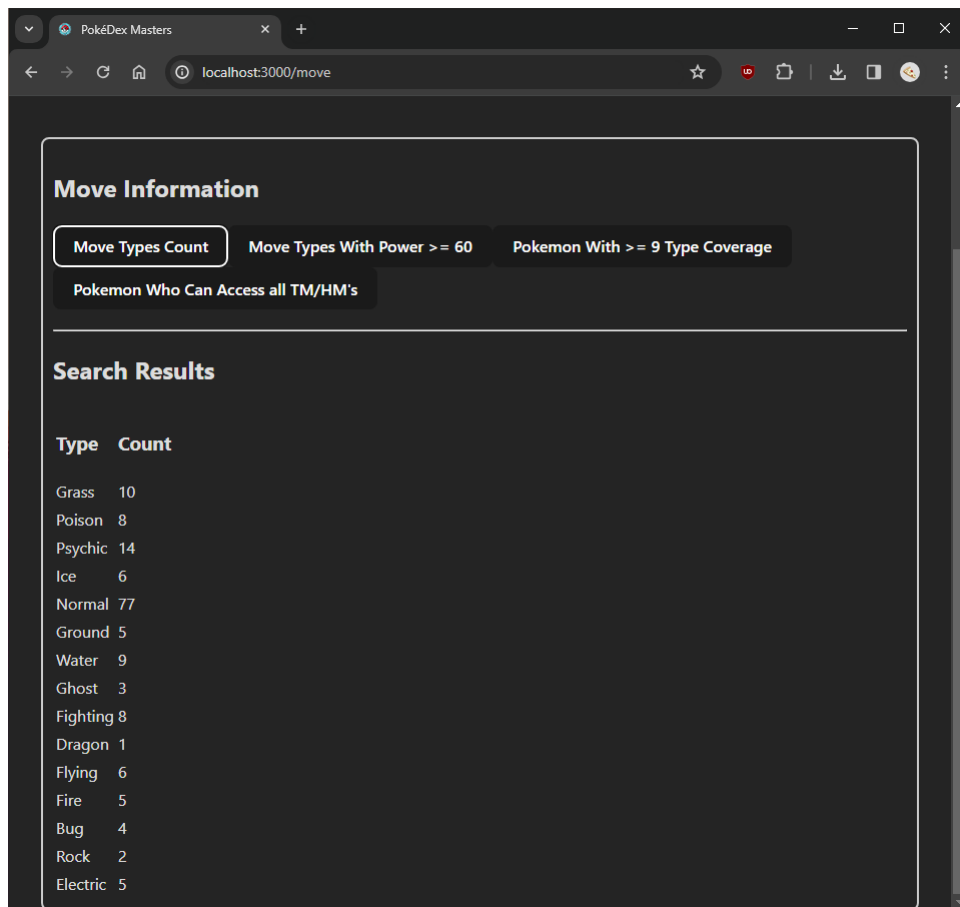


7. Aggregation with GROUP BY

To start, we navigate to the Move page in the navigation bar,

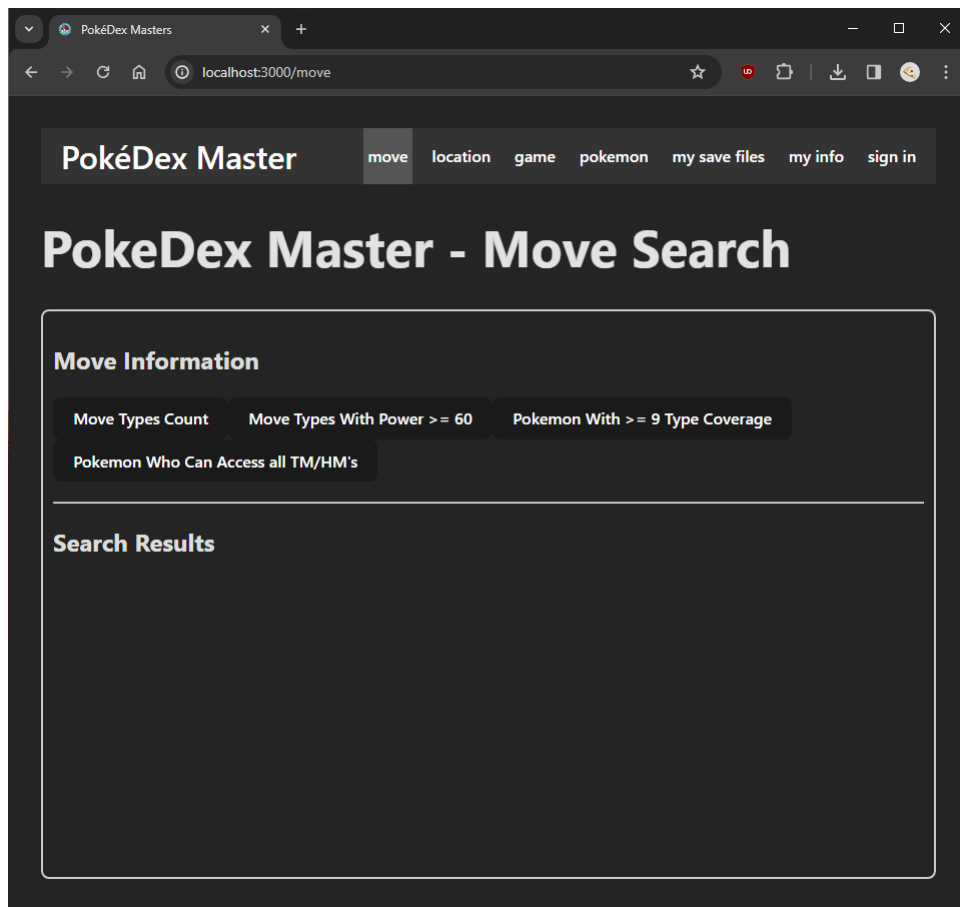


Now, to initiate the query, we select the Moves Types Count button in the menu. The outputted values in the search results section are then outputted. Note that this search requires GROUP BY because we are grouping the results by move type and counting the number of tuples in each group

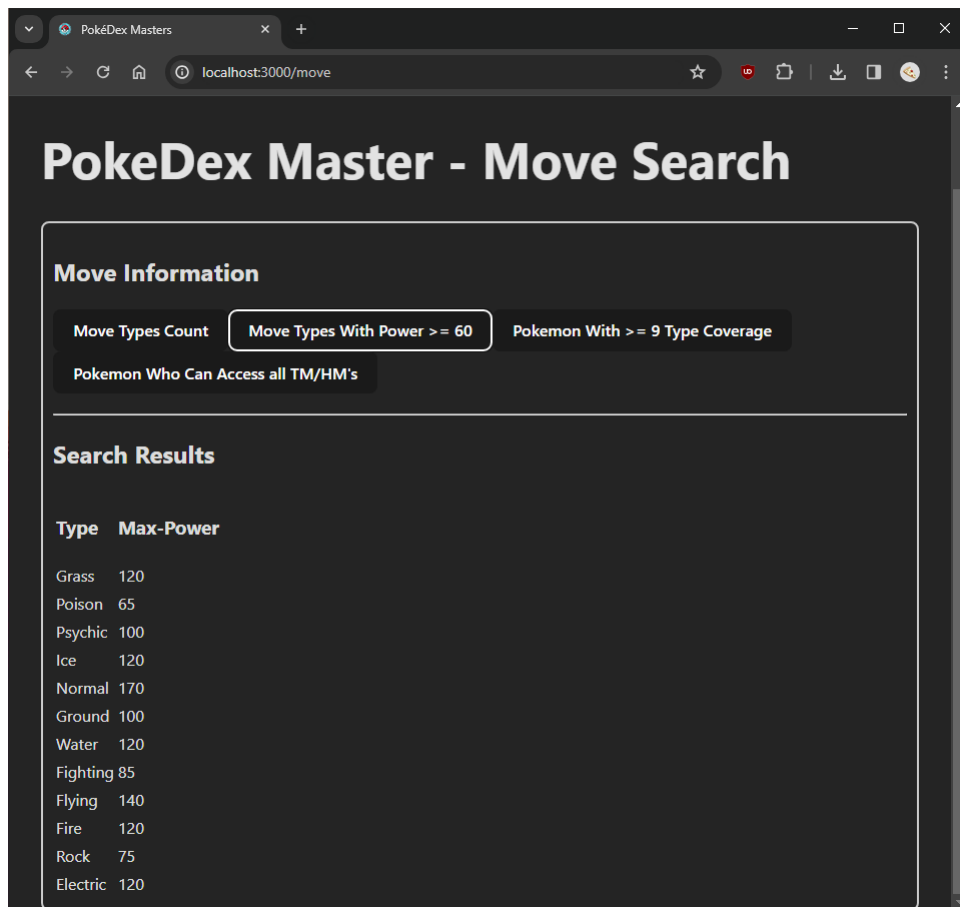


8. Aggregation with HAVING

To start, we navigate to the Move page in the navigation bar,

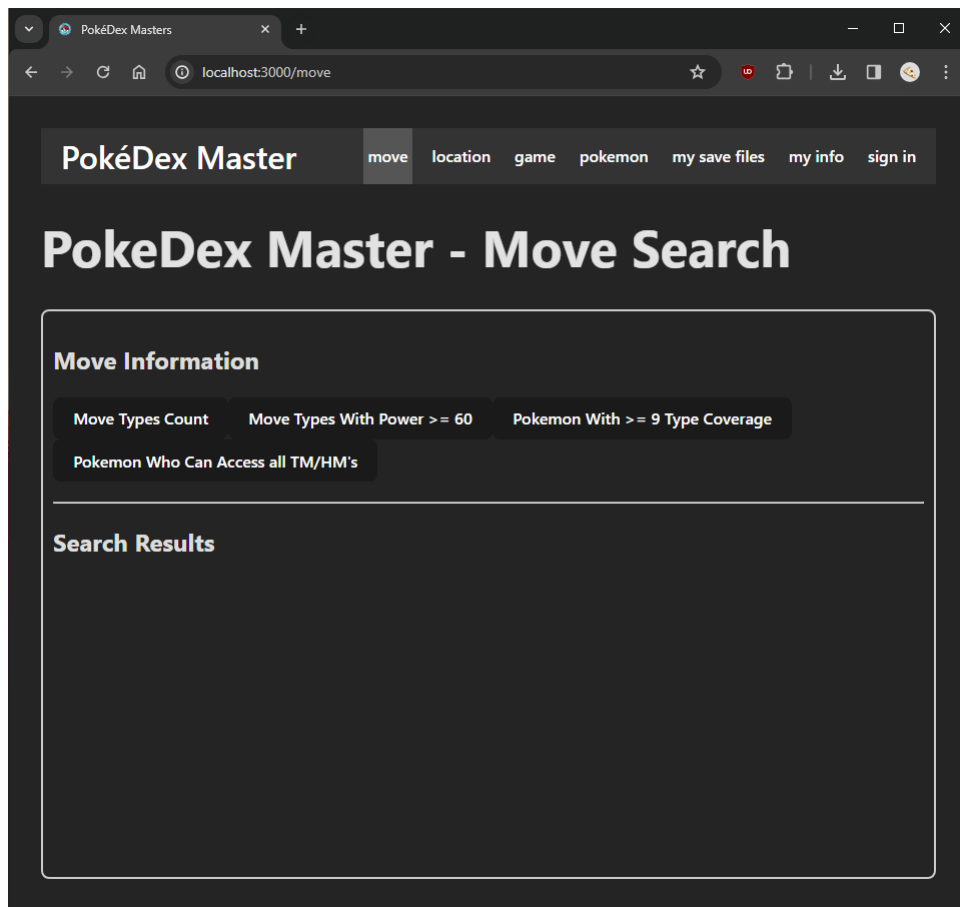


Now, to initiate the query, we select the Moves Types With Power ≥ 60 button in the menu. The outputted values in the search results section are then outputted. Note that this search requires HAVING because we are grouping the results by move type and only selecting those with a maximum move power above 60,

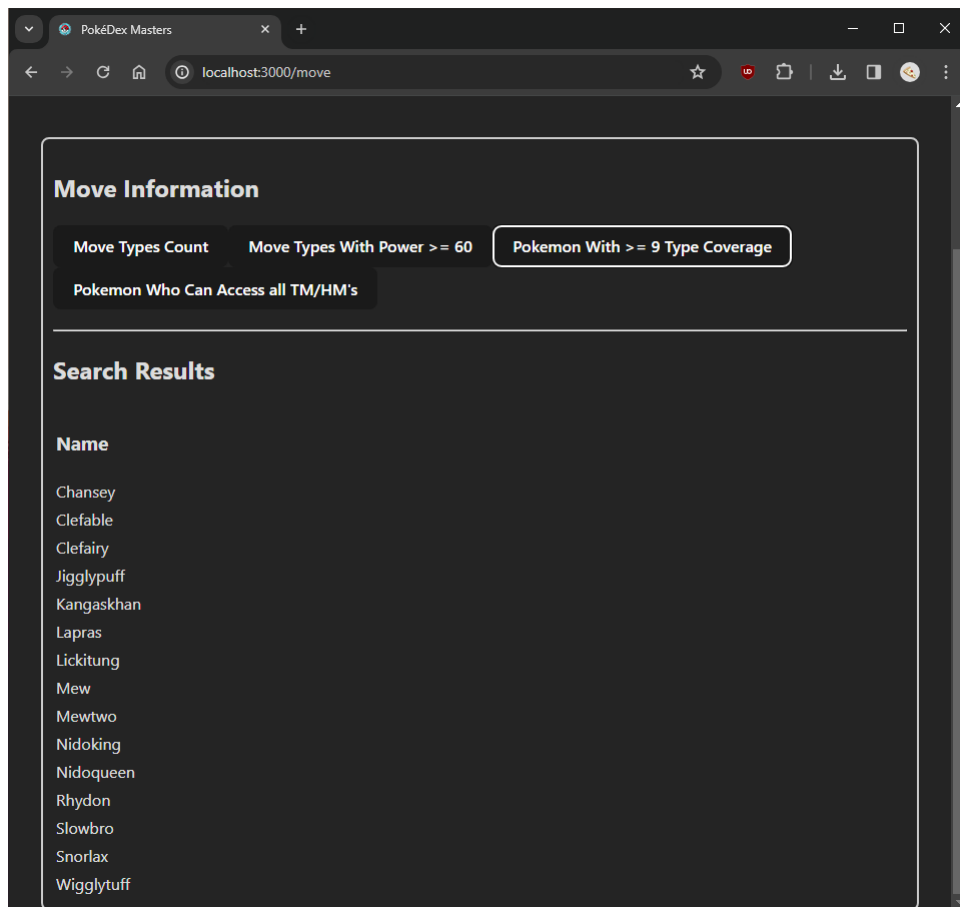


9. Nested Aggregation with GROUP BY

To start, we navigate to the Move page in the navigation bar,

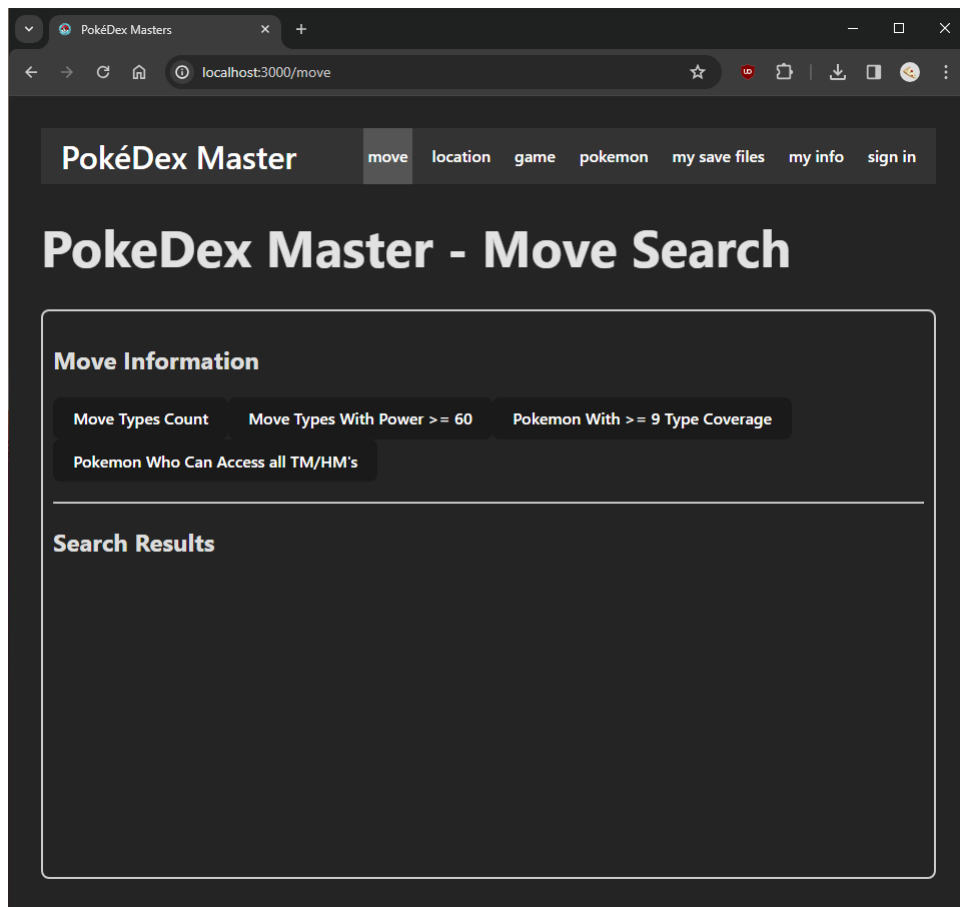


Now, to initiate the query, we select the Moves Types With Power ≥ 60 button in the menu. The outputted values in the search results section are then outputted. Note that this search requires nested aggregation because we are only selecting Pokemon with a count of greater than 9 in the nested query that finds all of the moves each Pokemon can use,



10. Division

To start, we navigate to the Move page in the navigation bar,



Now, to initiate the query, we select the Pokemon Who Can Access All TM/HM's button in the menu. The outputted values in the search results section are then outputted. Note that this search requires division because we are searching for Pokemon who can access *all* TMs and HMs,

