API Specification Document

For all of these I added them into my own API and had to adjust some of the parameters for each to make it work with this game. The way I did this was I created a Model of the Monsters with the parameters, id, name, attack, and hp. I did this because the three card games are very different from each other. The Yugioh card game for instance the monsters do not have an HP value, and in the Pokémon card game the attack of a Pokémon could just be a name of the attack not an actual value. I adjusted what we had from our class with the movie API and transformed that to fit the three API’s I wanted to make my game with.

For Digimon: the Api specification they provided was rather bare bones compared to the other two APIs. They provided two get request one for get all cards which is found here curl --location 'https://digimoncard.io/api-public/getAllCards.php?sort=name&series=Digimon%20Card%20Game&sortdirection=asc' and the other is more customizable. The second Get is for specific cards with parameters that you can adjust to pull in a specific card by a variety of parameters. These include search card by name, search by card description, by card color, by card type, by attribute, by card number, by asc or desc values, and the series the card is associated with. This is the curl for get specific cards curl --location 'https://digimoncard.io/api-public/search.php?n=Agumon&desc=Reveal%205%20cards&color=red&type=digimon&attribute=Vaccine&card=BT1-010&pack=BT01-03%3A%20Release%20Special%20Booster%20Ver.1.0&sort=name&sortdirection=desc&series=Digimon%20Card%20Game'

The card colors are Black, Blue, Colorless, Green, Purple, Red, White, and Yellow. The card types are Digimon, Option, Tamer, and Digi-Egg.

For Yugioh: Yugioh was far more detailed and set out a large majority of examples and documentation. This api requested to pull the data from the api and to store it locally to keep their traffic down to a minimum. Get Card Information endpoint is <https://db.ygoprodeck.com/api/v7/cardinfo.php> similarly to the digimon there are a variety of parameters that can be passed through it to get specific cards. This included name, fname, Konami\_id, type, atk, def, level, race, attribute, link, link marker, scale, cardset, archetype, banlist, sort, format, misc, staple, has\_effect, and start date.

Here is a detailed explanation of these variables starting with fname or fuzzy name to get a wildcard variable in there. Id being an 8 digiti code of the card, and Konami\_id is the Konami ID of the card. ([source](https://www.yugioh-card.com/en/events/kcgn/))

Card types:

Race value which is something like a spellcaster, or a bug, even a spell or transformation card and you can include multiple races into you parameters.

Attribute card which allows you to filter by attribute such as water, fire earth, and wind similar to race were you can include multiple attributes into your parameters. ([source](https://yugioh.fandom.com/wiki/Attribute))

Cardset meaning how the cards were released over the years, for instance metal raiders card set.

Archetype such as Blue Eyes which is my personal favorite and a staple for the game, which is part of the reason I incorporated those monsters into my game as opposed to all of the monters.

Banlist menaing that certain cards are banned from specific competitive tournaments for being unfair.

Sort cards in order by their attack, defense, their name, type, level and id.

Format to see which style the cards came in, for instance if it is from the tcg or trading card game or duel links which is another game involving cards but not officially published by Digimon.

Some of the miscellaneous values are the card value, the rarity of the card, and the images of the card.

The responses this API gives us JSON information of the cards in a dictionary which looks something like this from the API site

{

"data": [

{

"id": 6983839,

"name": "Tornado Dragon",

"type": "XYZ Monster",

"frameType": "xyz",

"desc": "2 Level 4 monsters\nOnce per turn (Quick Effect): You can detach 1 material from this card, then target 1 Spell/Trap on the field; destroy it.",

"atk": 2100,

"def": 2000,

"level": 4,

"race": "Wyrm",

"attribute": "WIND",

"card\_sets": [

{

"set\_name": "Battles of Legend: Relentless Revenge",

"set\_code": "BLRR-EN084",

"set\_rarity": "Secret Rare",

"set\_rarity\_code": "(ScR)",

"set\_price": "4.08"

},

{

"set\_name": "Duel Devastator",

"set\_code": "DUDE-EN019",

"set\_rarity": "Ultra Rare",

"set\_rarity\_code": "(UR)",

"set\_price": "1.4"

},

{

"set\_name": "Maximum Crisis",

"set\_code": "MACR-EN081",

"set\_rarity": "Secret Rare",

"set\_rarity\_code": "(ScR)",

"set\_price": "4.32"

}

],

"card\_images": [

{

"id": 6983839,

"image\_url": "https://images.ygoprodeck.com/images/cards/6983839.jpg",

"image\_url\_small": "https://images.ygoprodeck.com/images/cards\_small/6983839.jpg",

"image\_url\_cropped": "https://images.ygoprodeck.com/images/cards\_cropped/6983839.jpg"

}

],

"card\_prices": [

{

"cardmarket\_price": "0.42",

"tcgplayer\_price": "0.48",

"ebay\_price": "2.99",

"amazon\_price": "0.77",

"coolstuffinc\_price": "0.99"

}

]

}

]

}

It then goes into all the parameters in much more detail but I wanted to import the API information for the blue eyes architype which is found at this get http request. <https://db.ygoprodeck.com/api/v7/cardinfo.php?archetype=Blue-Eyes>

Finally Pokemon: Pokemon also had very detailed API documentation. Starting with this get HTTP request GET <https://api.pokemontcg.io/v2/cards>. Pokemon had the following parameters, q for searching, page, pageSize, orderby, and select. Page is the page of data to access which is defaulted to page 1 which is what I used. PageSize controlled the maximum amount of cards to return so if I put 33, it would only pull 33. OrderBy allows you to filter by a variety of parameters such as typing, evolution, generation, and more. Select is a delimited list of fields to return in response for instance select=id, name. All of these features also allow for a wildcard parameter of \* to help you search in the API for a specific pokemon you might be misspelling.

Here is an example of the responses we can expect to see.

{

"data": [

{

"id": "g1-1",

"name": "Venusaur-EX",

"supertype": "Pokémon",

"subtypes": [

"Basic",

"EX"

],

"hp": "180",

"types": [

"Grass"

],

"evolvesTo": [

"M Venusaur-EX"

],

"rules": [

"Pokémon-EX rule: When a Pokémon-EX has been Knocked Out, your opponent takes 2 Prize cards."

],

"attacks": [

{

"name": "Frog Hop",

"cost": [

"Grass",

"Colorless",

"Colorless"

],

"convertedEnergyCost": 3,

"damage": "40+",

"text": "Flip a coin. If heads, this attack does 40 more damage."

},

{

"name": "Poison Impact",

"cost": [

"Grass",

"Grass",

"Colorless",

"Colorless"

],

"convertedEnergyCost": 4,

"damage": "80",

"text": "Your opponent's Active Pokémon is now Asleep and Poisoned."

}

],

"weaknesses": [

{

"type": "Fire",

"value": "×2"

}

],

"retreatCost": [

"Colorless",

"Colorless",

"Colorless",

"Colorless"

],

"convertedRetreatCost": 4,

"set": {

"id": "g1",

"name": "Generations",

"series": "XY",

"printedTotal": 115,

"total": 115,

"legalities": {

"unlimited": "Legal",

"expanded": "Legal"

},

"ptcgoCode": "GEN",

"releaseDate": "2016/02/22",

"updatedAt": "2020/08/14 09:35:00",

"images": {

"symbol": "https://images.pokemontcg.io/g1/symbol.png",

"logo": "https://images.pokemontcg.io/g1/logo.png"

}

},

"number": "1",

"artist": "Eske Yoshinob",

"rarity": "Rare Holo EX",

"nationalPokedexNumbers": [

3

],

"legalities": {

"unlimited": "Legal",

"expanded": "Legal"

},

"images": {

"small": "https://images.pokemontcg.io/g1/1.png",

"large": "https://images.pokemontcg.io/g1/1\_hires.png"

},

"tcgplayer": {

"url": "https://prices.pokemontcg.io/tcgplayer/g1-1",

"updatedAt": "2021/07/15",

"prices": {

"holofoil": {

"low": 2.44,

"mid": 5.4,

"high": 16.99,

"market": 5.38,

"directLow": 6.1

}

}

}

},

{...},

{...}

],

"page": 1,

"pageSize": 250,

"count": 117,

"totalCount": 117

}

Citing Sources: