

## How to Add an NPC to Pokémon Snowdown

by Adeet Phanse

Before anything, make sure you are running a virtual machine that can run the game. You can instructions on how to do so in the "How to Install Pokémon Snowdown" guide.

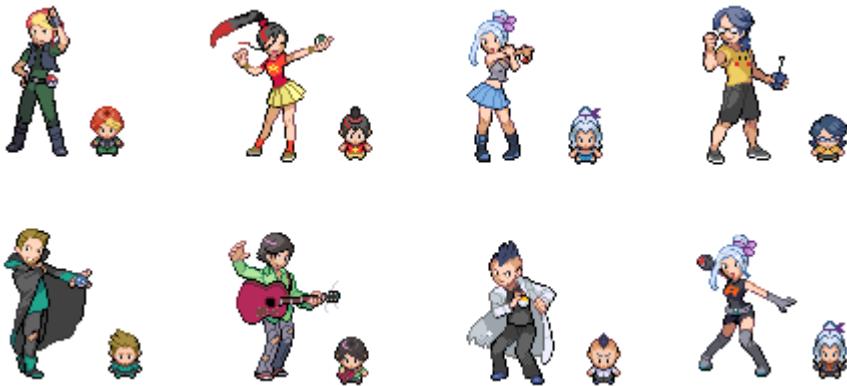
This guide is assuming you have cloned the repository from <https://github.com/Phansa/PokeSnowdown> or <https://github.com/maZang/PokeSnowdown> and have basic knowledge about how linux works.

Adding an NPC to the Pokémon Snowdown game is a great way to contribute to this project! Just follow these steps and you will be well on your way to making your own NPC in this game and hopefully getting it accepted into the main project!

For this example we will be adding Bob.npc. If you look in the tournament.mli file you will find him there. You will need an image edition program, for this example I will be using Paint.Net which you can find here.

<http://www.getpaint.net/download.html>

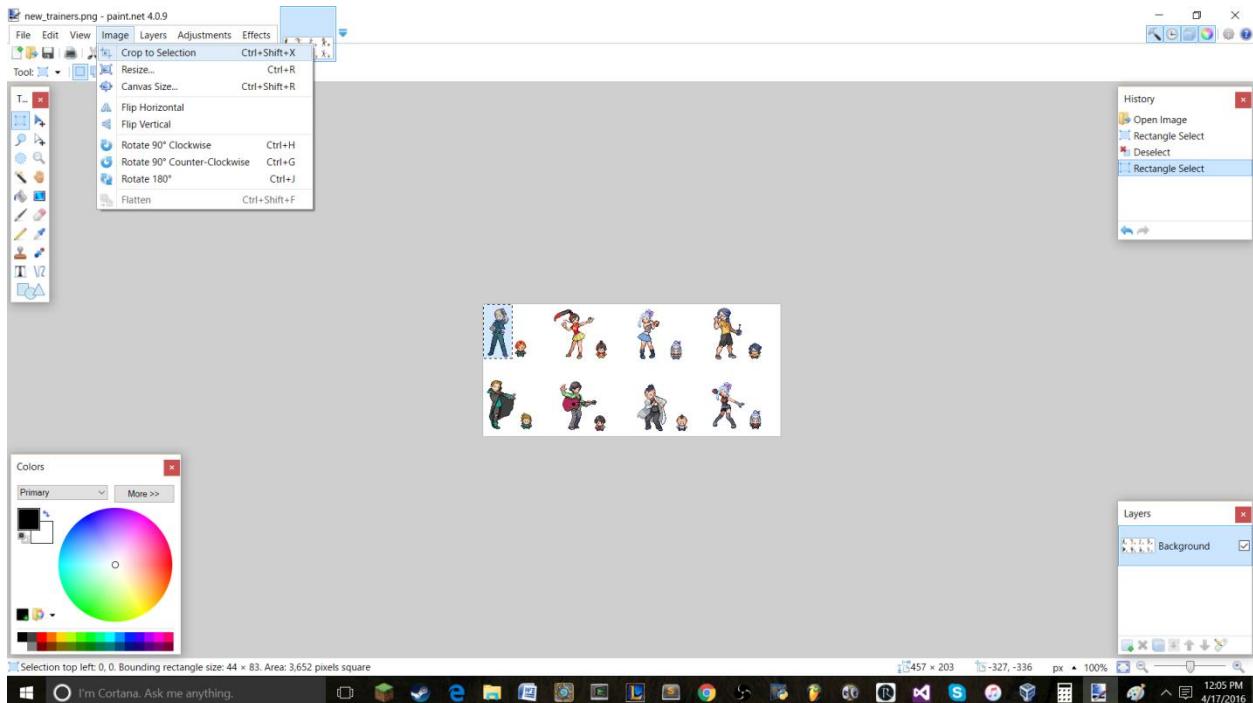
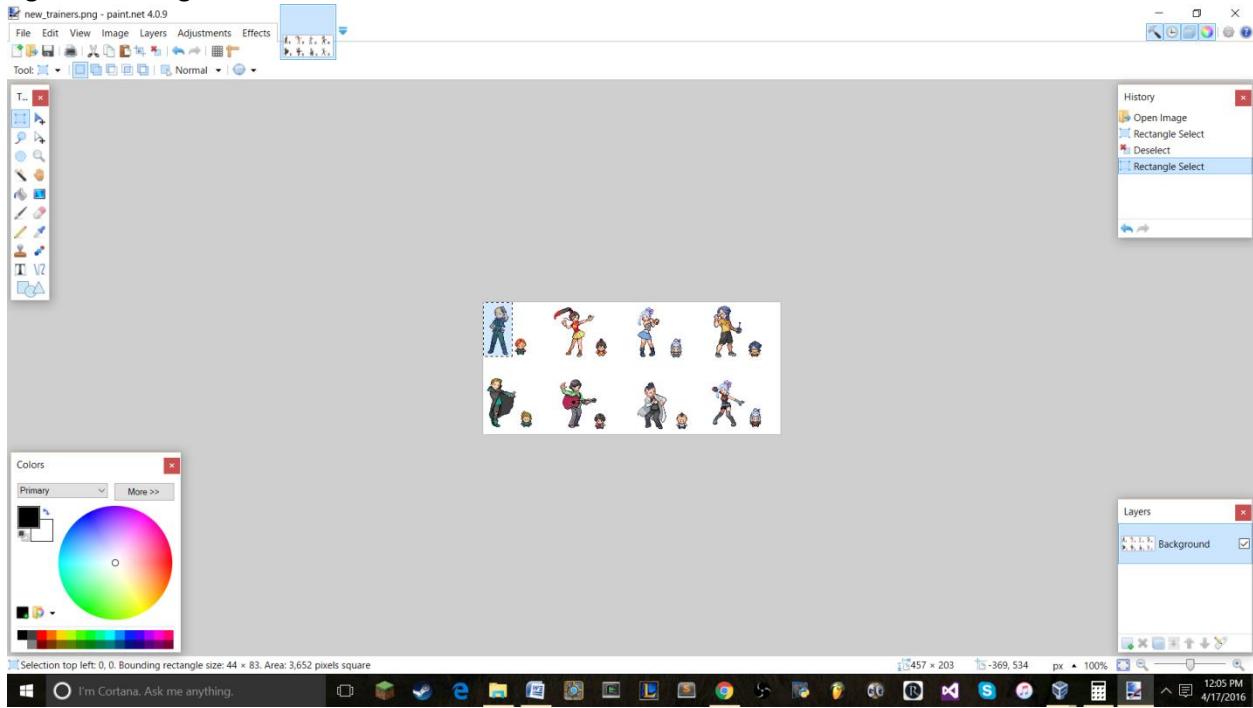
You will also need a sprite and trainer "portrait". You can find sprite sheets for trainers online.



I will be using this sprite sheet I found online for this example. I will be adding the top left sprite into the game.

\*\*\*Please remember to cite the source you are using in the README.MD file under image sources!!!

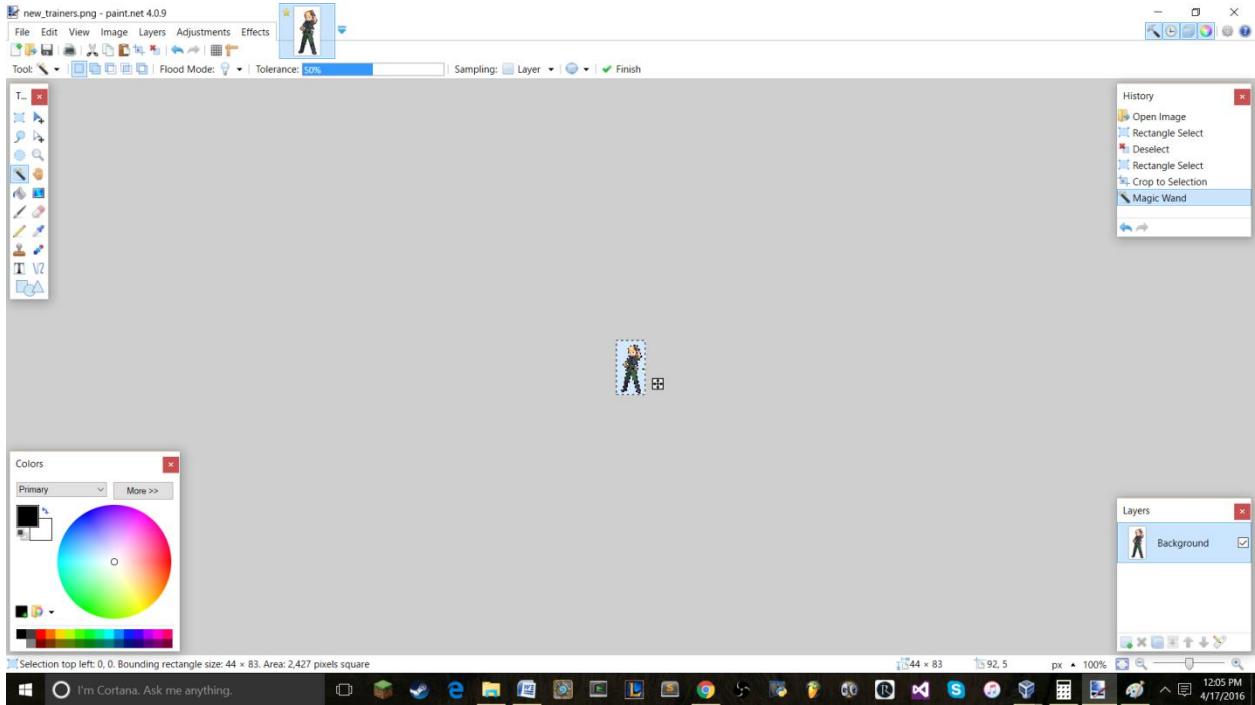
The first thing you will have to do is crop the big trainer image and little trainer sprite. Starting with the big trainer image -



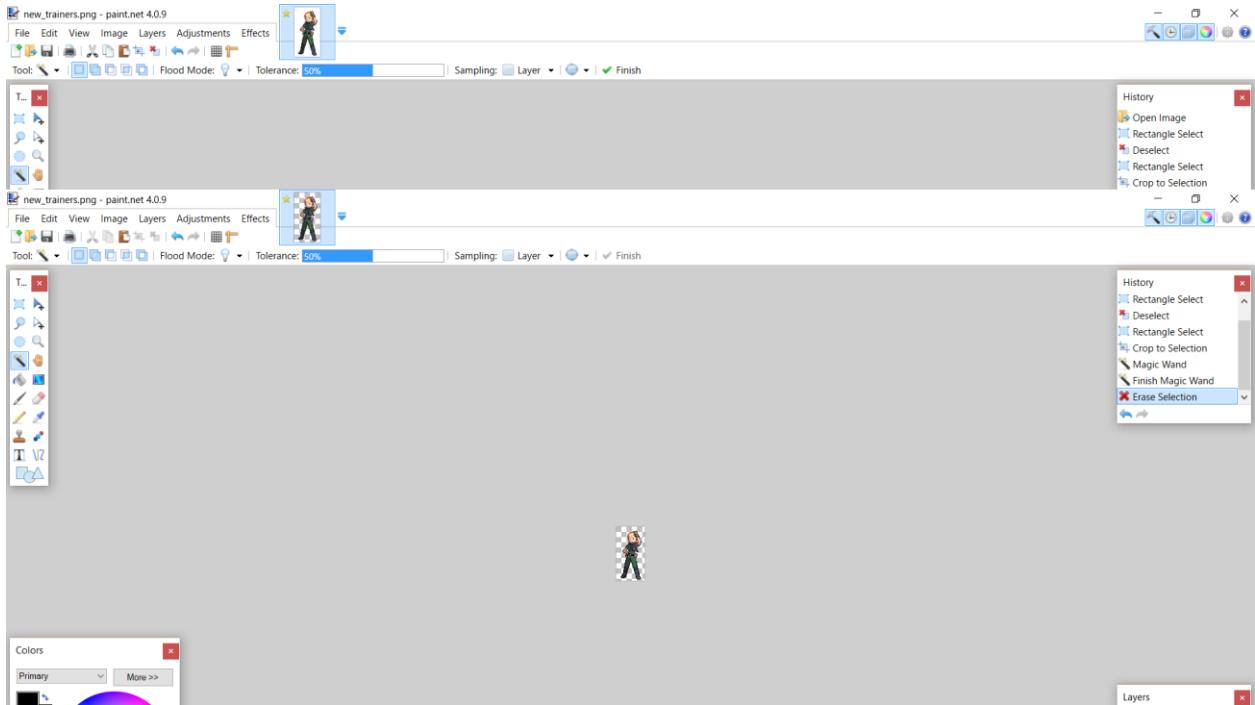
You will then have to edit the cropped image and make the background transparent. This video tutorial will show you how to do this in Paint.net. Save the images you make in PNG format so they do not regain their white background.

<https://www.youtube.com/watch?v=cdFpS-AvNCE>

I have clicked the magic wand button and also clicked the white background of this image. The next step will be to press delete while the background is selected.

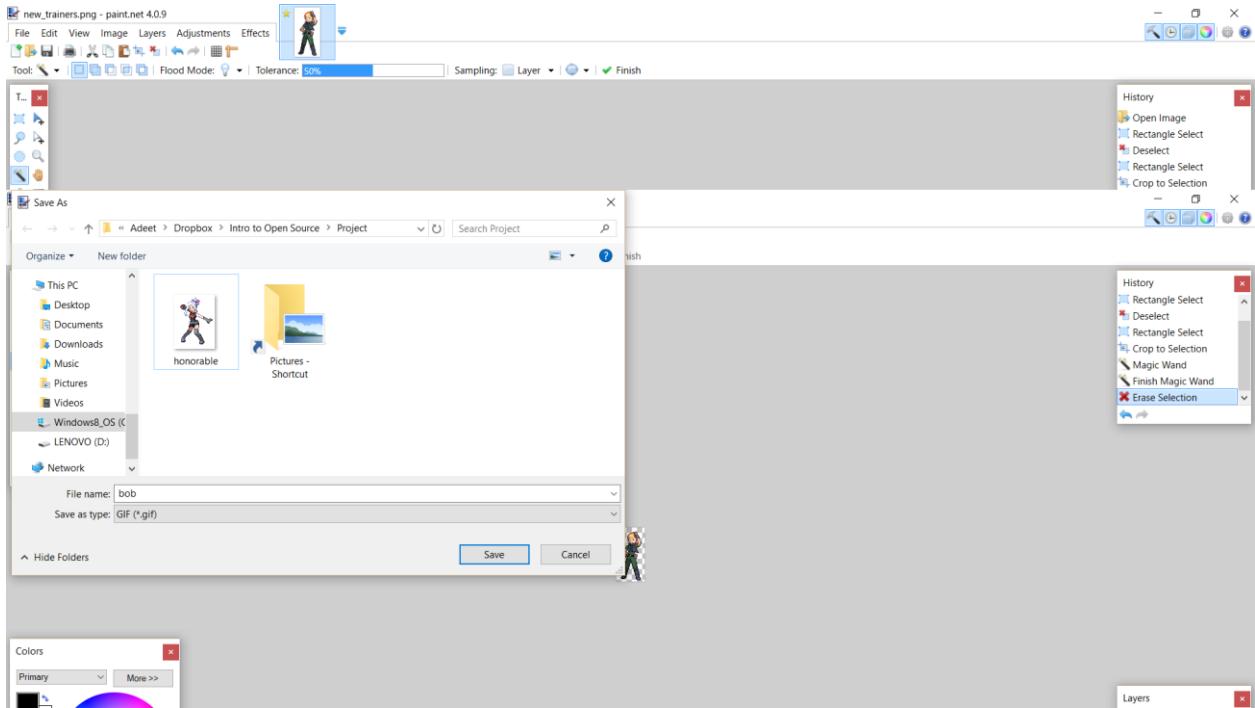


The results of doing this is -



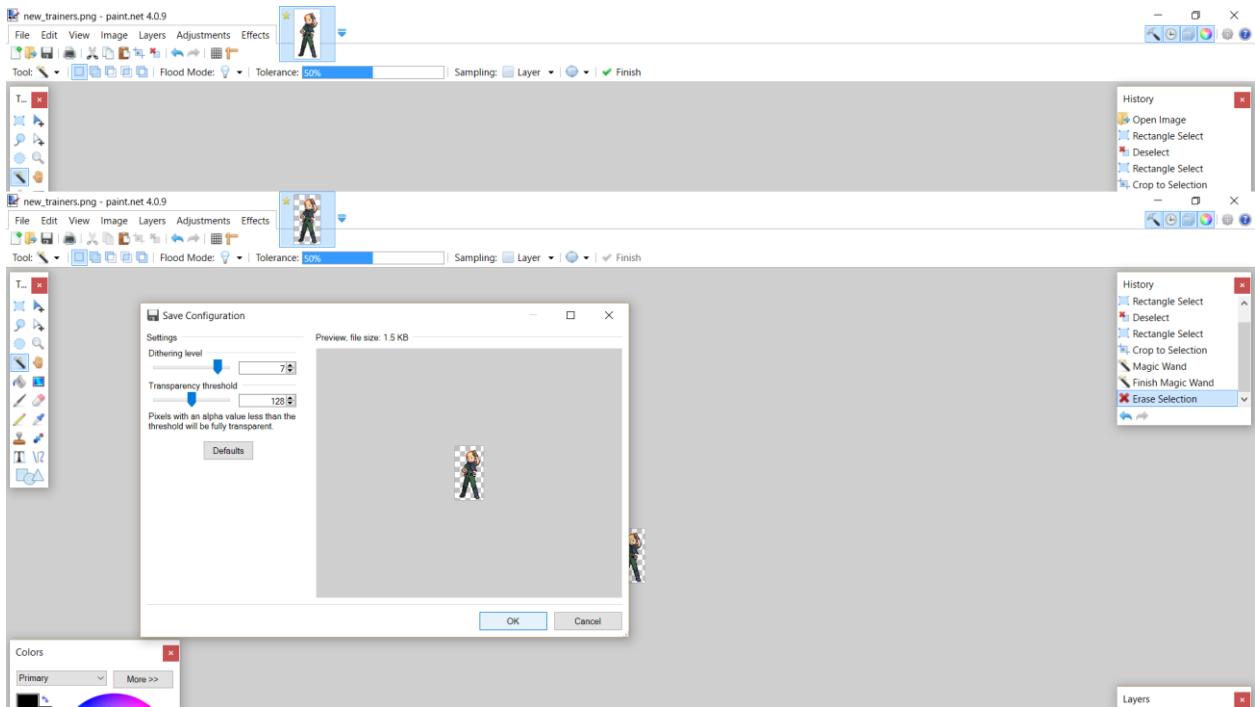
Now the trainer image is good to go! The final step is to save this image as a GIF format image.

Go to File -> Save As -> bob and select format GIF.



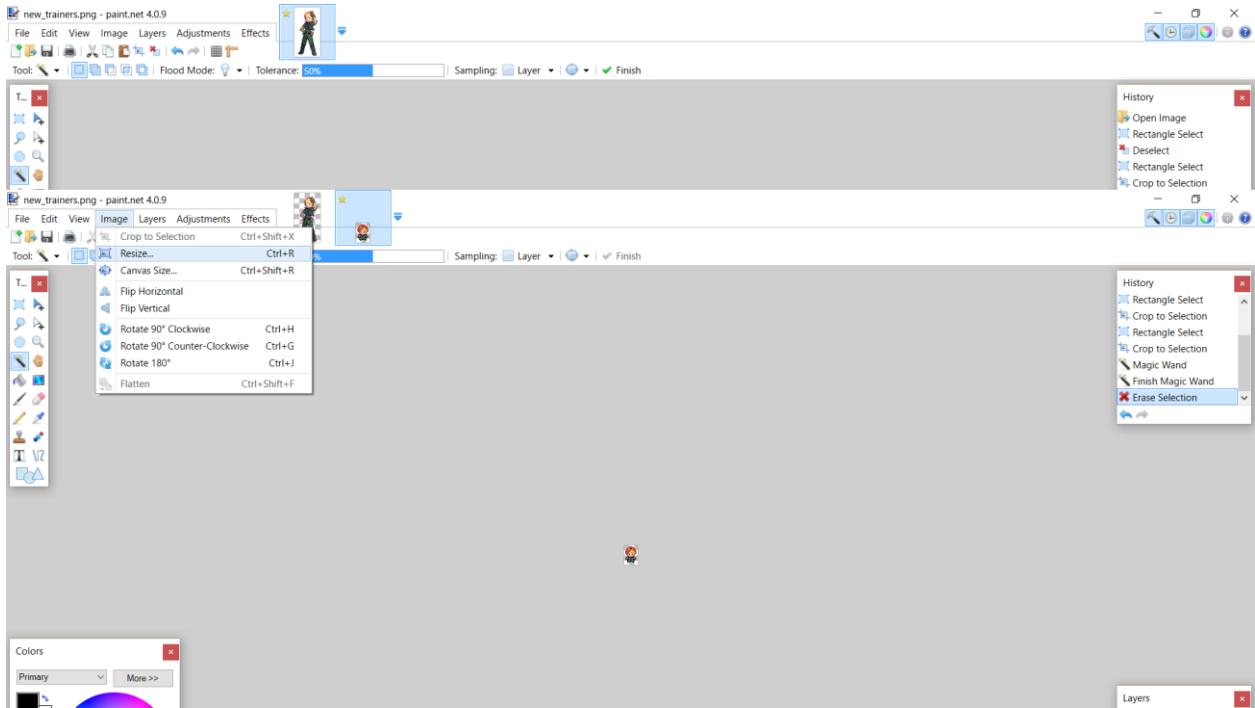
**Note:** Save the image as lowercase

Just press ok on the next screen

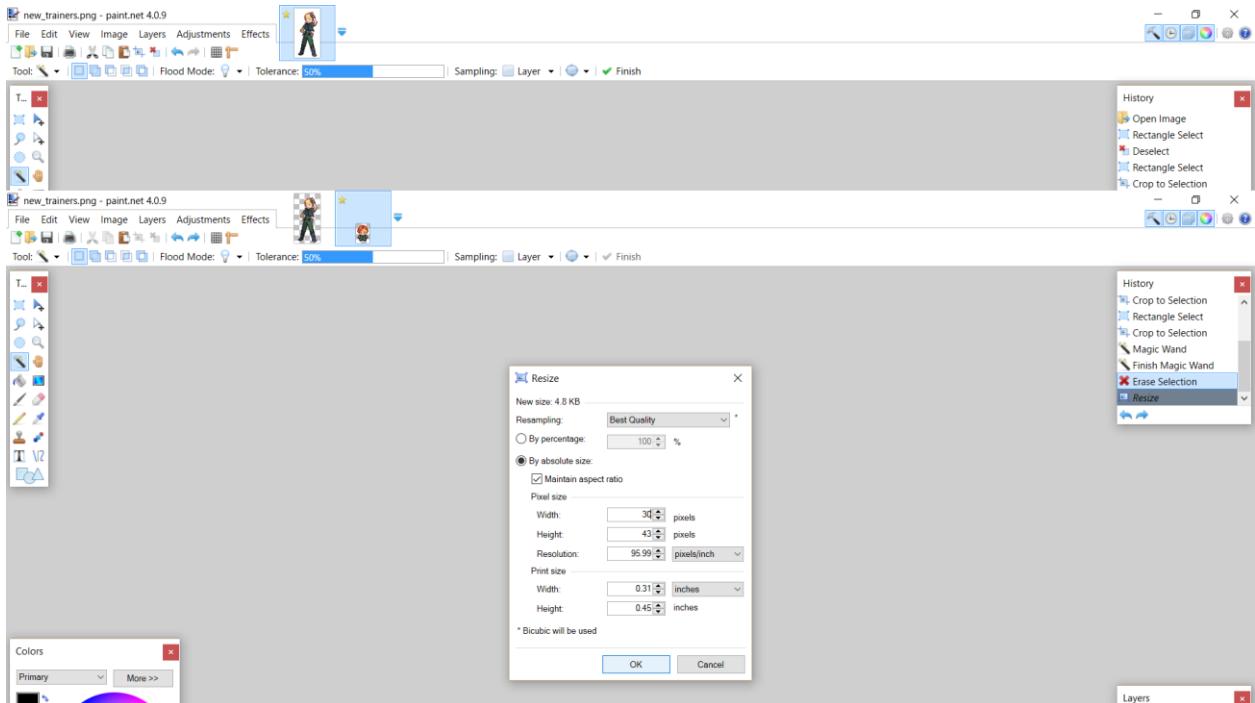


Congratulations, you have successfully made the trainer battle sprite!

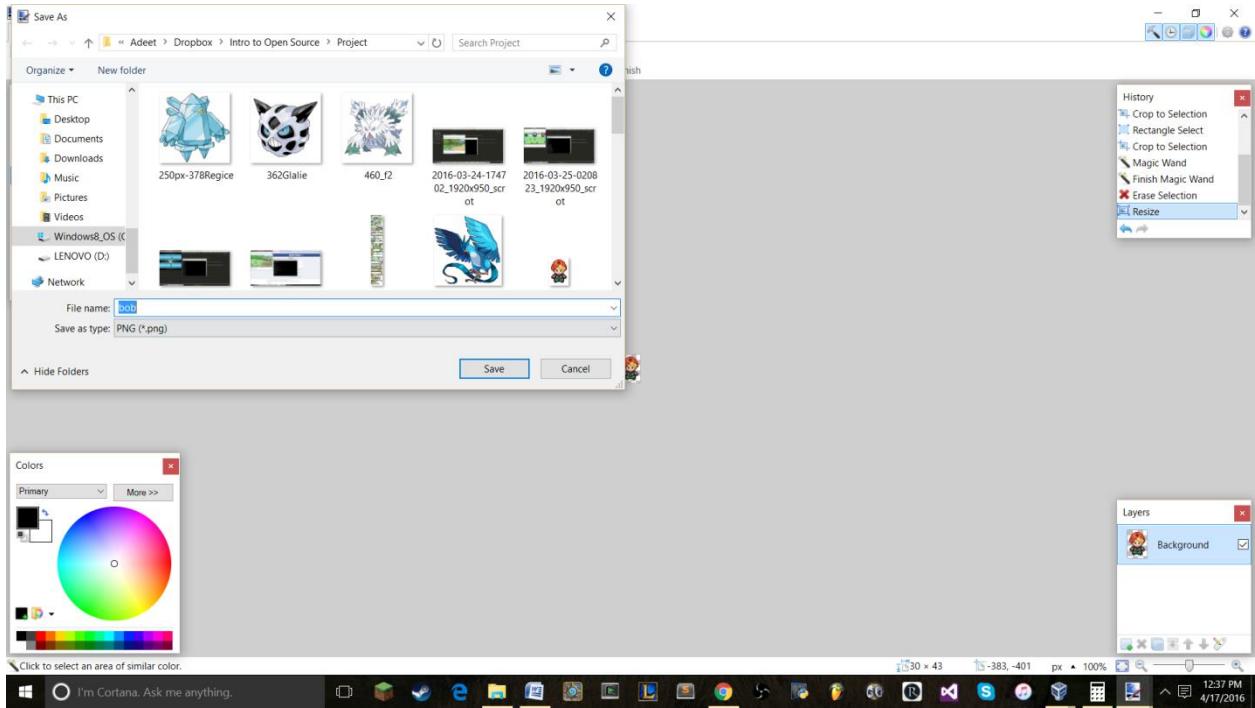
For the little sprite do the same exact steps up to saving it as a GIF. So crop the image from the main sprite sheet and use the magic wand to remove the white background. I will skip ahead to the that part.



We will want to resize this sprite so it will have the proper dimensions in game. In general you will want to resize the width to be around 32 pixels wide. It can be a bit lower, it really depends on how you cropped the image. ~30 pixels for width should be fine.

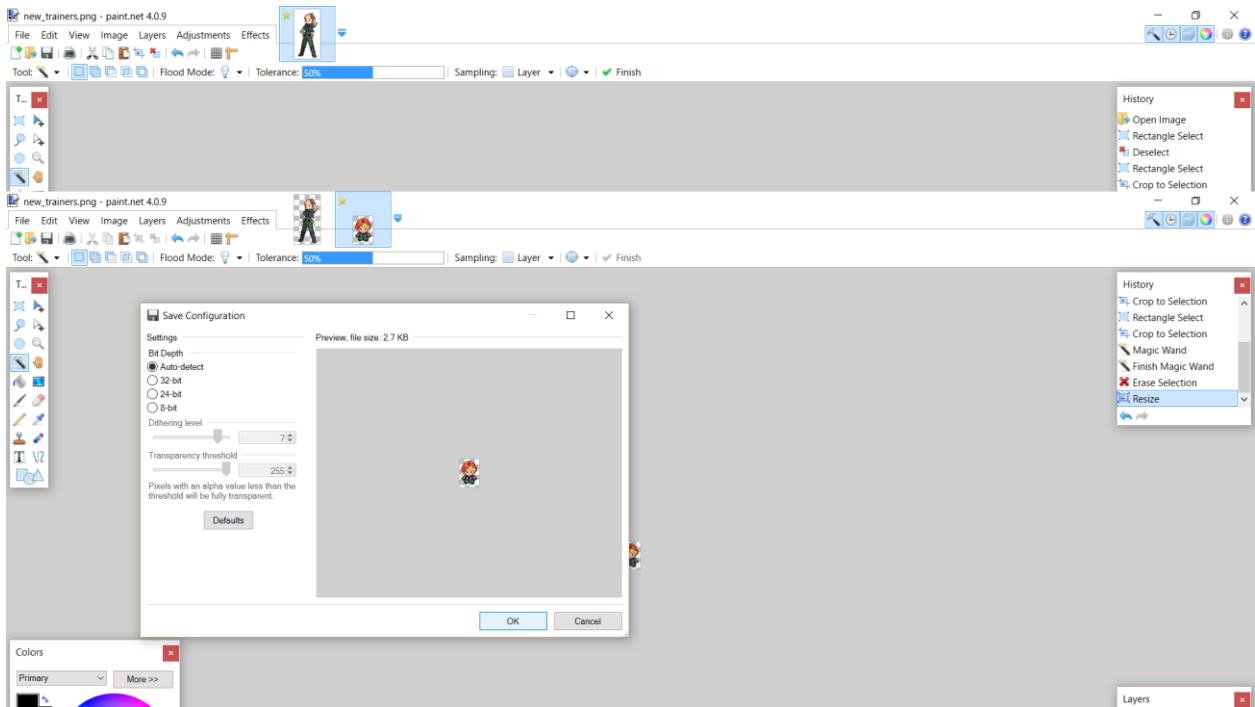


Afterwards go to file -> save as -> bob.png



**Note:** Save the image as lowercase.

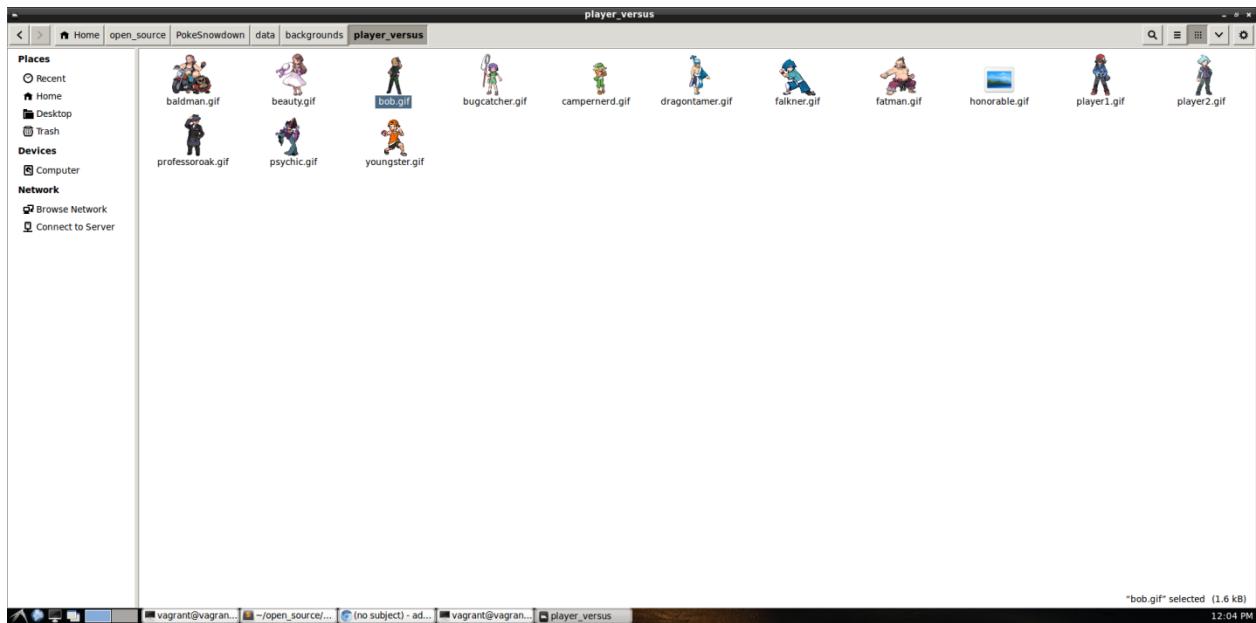
Just hit OK on the next screen



Now we will have to add these two files to the game folders.

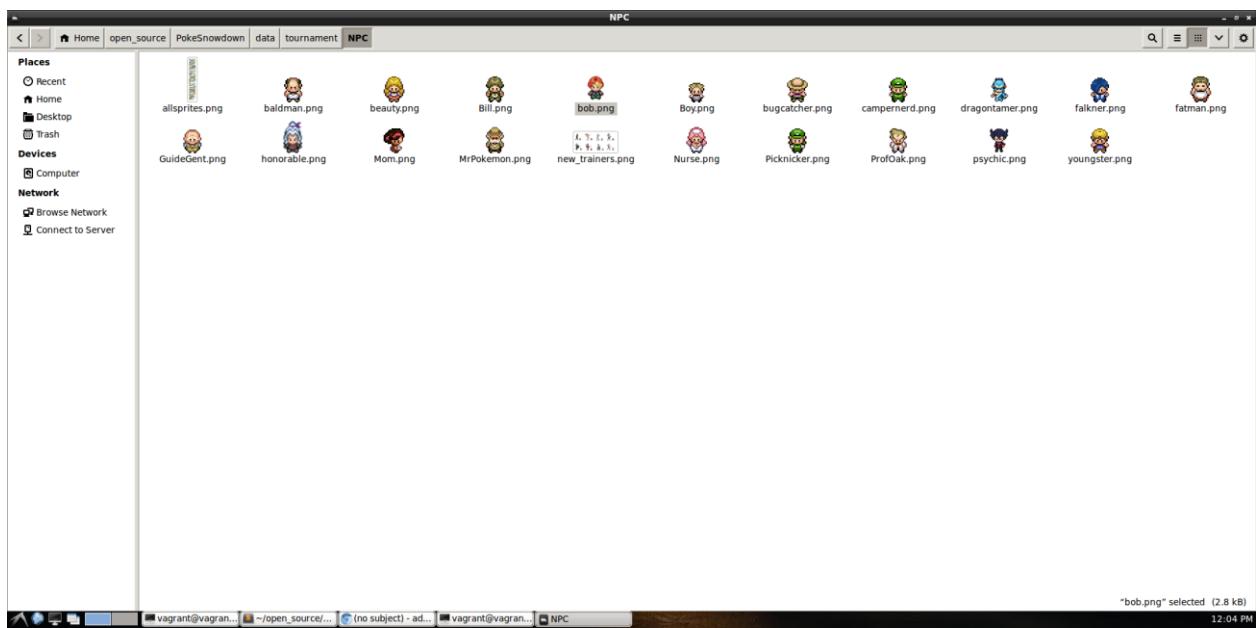
Place bob.gif into

PokeSnowdown -> data->backgrounds->player\_versus



Place Bob.png into

PokeSnowdown -> data->tournament->NPC



Now we can edit the tournament.mli file. It is important to pay attention to capitalization of the variables we are using so you do not get a compiler error.

Edit this line

```
type enemy = RoughNeck | Beauty | BugCatcher | CampNerd | DragonTamer | Falkner | FatMan |
Psychic | Youngster | ProfOak | Chancellor
```

add | Bob so it becomes

```
type enemy = RoughNeck | Beauty | BugCatcher | CampNerd | DragonTamer | Falkner | FatMan |
Psychic | Youngster | ProfOak | Chancellor | Bob
```

```
~/open_source/PokeSnowdown/game/tournament.ml - Sublime Text
File Edit Selection Find View Goto Tools Project Preferences Help
tournament.ml homerule.json factories.json bob.json pokemon.json Untitled Untitled moves.json pokemonlist.json baldman.json gui.ml battle_controller.ml info.ml README.txt younger.json
1 open Info
2
3 type enemy = RoughNeck | Beauty | BugCatcher | CampNerd | DragonTamer | Falkner | FatMan | Psychic | Youngster | ProfOak | Chancellor | Bob
4
5 let enemy1 = ref Beauty
6 let enemy2 = ref Falkner
7 let selectedEnemy = ref Falkner
8
9 let profOakBattleQuotes = ["I see. You have beat everyone I've thrown at you.";
10   "Team Rocket cannot have someone as strong as you";
11   "Interrupting our Hunger Games"; "...err Pokemon Showdown";
12   "Time to show you why they call me Professor."]
13
14 let profOakQuotes = ["Welcome to Pokemon Showdown. Due to the stark winter";
15   "we have held a recent Pokemon competition to maintain the population.";
16   "Please do not be afraid to attack your opponents";
17   "Look at the enemy trainers closely to discern what type of Pokemon they use.";
18   "You will have the option of choosing your Pokemon after you make your selection."]
19
20 let roughNeckQuotes =
21   ["I am Brutal Bill";
22   "I am a dark and twisted man.";
23   "I've been reported in League of Legends for toxicity.";
24   "But most of all, I am your father.";
25   "Sike."]
26
27 let beautyQuotes =
28   ["I am Chirag's Mother.";
29   "I will rekt you harder than Chirag rekts Piazza.";
30   "You're already dead, you just haven't caught up yet."
31   "And I am fairy mean";
32   "Prepare yourself mate."]
33
34 let bugCatcherQuotes =
35   ["I'll gonna bug you so hard.";
36   "But please don't flame me if I lose.";
37   "I'll probably lose if you flame me though."]
38
39 let campnerdQuotes =
40   ["What is this game?";
41   "What is life?";
42   "Am I shocking?";
43   "Am I hot?";
44   "What am I?";
45   "What is life?"]
46
47 let dragonTamerQuotes =
48   ["I am a Targaryen";
```

Next add bobQuotes which will be the things the NPC says before battling you.

in this case we add this code -

```
let bobQuotes =
["Tread carefully.";
"Enforced equilibrium.";
"You're already dead, you just haven't caught up yet."
```

```

File Edit Selection Find View Goto Tools Project Preferences Help
main.c -- Lab09lab09 x tournament.ml x baldman.json x guil.ml x untitled * battle_controller.ml x info.ml x README.txt * honorable.json x youngster.json x README.md -- open_source/PokeSnowdown x main.c -- Lab08lab08 x clc.c
55 let fatManQuotes =
56   ["I'm not fat, I'm big boned.";
57   "I will fight you to the death";
58   "With some kung fu fighting";
59   "Kicks fast as lightning";
60   "A little bit frightening"]
61
62 let psychicQuotes =
63   ["I knew you would choose me";
64   "But what can I say, I'm psychic";
65   "Or crazy. Your pick."]
66
67 let youngsterQuotes =
68   ["You do know I'm underage right.";
69   "You can't pick on someone your own size?";
70   "But I guess I'll stand my ground."]
71
72 let chancellorQuotes =
73   ["Save the Concord? There is no situation with the Concord.";
74   "It would be unwise to pursue this line of questioning.";
75   "Peaceful Protest? There is no such thing. Bring out the police and arrest these agitators."]
76
77 let bobQuotes =
78   ["Tread carefully.";
79   "Enforced equilibrium.";
80   "You're already dead, you just haven't caught up yet."]
81
82 let getRandomEnemy () =
83   match Random.int 10 with
84   | 0 -> RoughNeck
85   | 1 -> Beauty
86   | 2 -> BugCatcher
87   | 3 -> CampFerd
88   | 4 -> DragonTamer
89   | 5 -> Falkner
90   | 6 -> FatMan
91   | 7 -> Psychic
92   | 8 -> Youngster
93   | 9 -> Chancellor
94   | _ -> failwith "Does Not Happen"
95
96 let getStringFromEnemy ene =
97   match ene with
98   | RoughNeck -> "baldman"
99   | Beauty -> "beauty"
100  | BugCatcher -> "bugcatcher"
101
102 Line 82 Column 1
vagrant@vagrant: ~ /open_source... (no subject) - ad... vagrant@vagrant: ~ NPC

```

Next we will have to increment the Random.int integer and add bob to the list under getRandomEnemy  
match Random.int 11 with

| 10 -> Bob

```

File Edit Selection Find View Goto Tools Project Preferences Help
main.c -- Lab09lab09 x tournament.ml x baldman.json x guil.ml x untitled * battle_controller.ml x info.ml x README.txt * honorable.json x youngster.json x README.md -- open_source/PokeSnowdown x main.c -- Lab08lab08 x clc.c
52 (*Please don't interrupt me.*;
53   "In bird culture that is considered a duck move.")
54
55 let fatManQuotes =
56   ["I'm not fat, I'm big boned.";
57   "I will fight you to the death";
58   "With some kung fu fighting";
59   "Kicks fast as lightning";
60   "A little bit frightening"]
61
62 let psychicQuotes =
63   ["I knew you would choose me";
64   "But what can I say, I'm psychic";
65   "Or crazy. Your pick."]
66
67 let youngsterQuotes =
68   ["You do know I'm underage right.";
69   "You can't pick on someone your own size?";
70   "But I guess I'll stand my ground."]
71
72 let chancellorQuotes =
73   ["Save the Concord? There is no situation with the Concord.";
74   "It would be unwise to pursue this line of questioning.";
75   "Peaceful Protest? There is no such thing. Bring out the police and arrest these agitators."]
76
77 let bobQuotes =
78   ["Tread carefully.";
79   "Enforced equilibrium.";
80   "You're already dead, you just haven't caught up yet."]
81
82 let getRandomEnemy () =
83   match Random.int 11 with
84   | (match 9 with)
85   | 0 -> RoughNeck
86   | 1 -> Beauty
87   | 2 -> BugCatcher
88   | 3 -> CampFerd
89   | 4 -> DragonTamer
90   | 5 -> Falkner
91   | 6 -> FatMan
92   | 7 -> Psychic
93   | 8 -> Youngster
94   | 9 -> Chancellor
95   | 10 -> Bob
96   | _ -> failwith "Does Not Happen"
97
98 let getStringFromEnemy ene =
99
100 Line 91 Column 17
vagrant@vagrant: ~ /open_source... (no subject) - ad... vagrant@vagrant: ~ NPC

```

After this we have to edit the getStringFromEnemy line adding the variable we just made (Bob) and the file names we have decided to use (in this case we called the Bob png and Bob gif bob.png and bob.gif for ease of use but you can call those files anything you want.)

| Bob -> "bob"

```

File Edit Selection Find View Goto Tools Project Preferences Help
main.c -- Lab08Tab09 x tournament.ml x baidman.json x gui.ml x untitled x battle_controller.ml x info.ml x README.txt x honorable.json x youngster.json x README.md -- open_source\PokeSnowdown x main.c -- Lab08Tab08 x clc.c x
94 | 8 -> Youngster
95 | 9 -> Chancellor
96 | 10 -> Bob
97 | _ -> failwith "Does Not Happen"
98
99 let getStringFromEnemy enn =
100 match enn with
101 | RoughNeck -> "badman"
102 | Beauty -> "beauty"
103 | BugCatcher -> "bugcatcher"
104 | CampFerd -> "campernerd"
105 | DragonTamer -> "dragontamer"
106 | Falkner -> "falkner"
107 | FatMan -> "fatman"
108 | Psychic -> "psychic"
109 | Youngster -> "youngster"
110 | ProfOak -> "professoroak"
111 | Chancellor -> "honorable"
112 | Bob -> "bob"
113
114 let getStringOfEnemy () =
115   getStringFromEnemy !selectedEnemy
116
117 let getRandomOppi () =
118   let rand enemy = getRandomEnemy () in
119   let sprite = getStringFromEnemy rand enemy in
120   enemy := rand enemy; sprite
121
122 let getRandomOppi2 () =
123   let rand enemy = getRandomEnemy () in
124   let sprite = getStringFromEnemy rand enemy in
125   enemy2 := rand enemy; sprite
126
127 let getQuotes enn =
128 match enn with
129 | RoughNeck -> roughNeckQuotes
130 | Beauty -> beautyQuotes
131 | BugCatcher -> bugCatcherQuotes
132 | CampFerd -> campFerdQuotes
133 | DragonTamer -> dragonTamerQuotes
134 | Falkner -> falknerQuotes
135 | FatMan -> fatManQuotes
136 | Psychic -> psychicQuotes
137 | Youngster -> youngsterQuotes
138 | ProfOak -> profOakBattleQuotes
139 | Chancellor -> chancellorQuotes
140
141 let getProfOakQuotes () = selectedEnemy := ProfOak; profOakBattleQuotes

```

Line 112, Column 3 vagrant@vagrant: ~\open\_source\... (no subject) - ad... vagrant@vagrant: ~\open\_source\... NPC

Spaces: 2 QiCaml 12:04 PM

We will then have to add the ability for Bob to get his quotes.

| Bob -> bobQuotes

Use the original Bob variable we declared at the start, the string from the last part is only used for the png and gif files. Once again it simpler to just call them the same thing as the NPC.

```

File Edit Selection Find View Goto Tools Project Preferences Help
main.c -- Lab08Tab09 x tournament.ml x baidman.json x gui.ml x untitled x battle_controller.ml x info.ml x README.txt x honorable.json x youngster.json x README.md -- open_source\PokeSnowdown x main.c -- Lab08Tab08 x clc.c x
128 let getQuotes enn =
129 match enn with
130 | RoughNeck -> roughNeckQuotes
131 | Beauty -> beautyQuotes
132 | BugCatcher -> bugCatcherQuotes
133 | CampFerd -> campFerdQuotes
134 | DragonTamer -> dragonTamerQuotes
135 | Falkner -> falknerQuotes
136 | FatMan -> fatManQuotes
137 | Psychic -> psychicQuotes
138 | Youngster -> youngsterQuotes
139 | ProfOak -> profOakBattleQuotes
140 | Chancellor -> chancellorQuotes
141 | Bob -> bobQuotes
142
143 let getProfOakQuotes () = selectedEnemy := ProfOak; profOakBattleQuotes
144
145 let opp1Quotes () = selectedEnemy := !enemy1; getQuotes !enemy1
146
147 let opp2Quotes () = selectedEnemy := !enemy2; getQuotes !enemy2
148
149 let toJson () =
150   Yojson.Basic.from_file("../data/tournament/NPC.json") <-- (getStringFromEnemy selectedEnemy) ^ ".json"
151
152 let unlockPokemon () =
153   let open Yojson.Basic.Util in
154   let unlockList = List.map (to_string) (getJson ()) > member "unlockable" > to_list in
155   let rand = Random.int (List.length unlockList) in
156   let poke_to_unlock = List.nth unlockList rand in
157   Save.addPoke (getStringFromEnemy selectedEnemy) poke_to_unlock; poke_to_unlock
158
159 type region = IceCave | JourneyNoak | JourneyOak
160
161 let ice_obstacles = [(0,0);(0,1);(0,2);(0,3);(0,4);(0,5);(0,6);(0,7);
162   (1,0);(1,1);(1,2);(1,3);(1,4);(1,5);(1,6);(1,7);
163   (0,0);(1,0);(2,0);(3,0);(4,0);(5,0);(6,1);(7,0);(8,1);
164   (9,0);(10,0);(11,0);(12,0);(13,0);(14,0);(6,7);(1,7);
165   (2,7);(3,7);(4,7);(5,7);(6,7);(7,7);(6,8);(10,7);
166   (1,1);(2,1);(3,1);(4,1);(5,1);(6,1);(7,1);(8,1);
167   (* ice rock *)
168   (6,4);(0,4);(6,3);(0,3);(6,2);(0,2);(5,1);(9,1);
169   (* random rock *)
170   (1,1);(2,1);(3,1);(4,1);(5,1);(6,1);(7,1);(8,1);
171 let tilemap_prof oak = [(0,0);(0,1);(0,2);(0,3);(0,4);(0,5);(0,6);(0,7);
172   (1,0);(1,1);(1,2);(1,3);(1,4);(1,5);(1,6);(1,7);
173   (0,0);(1,0);(2,0);(3,0);(4,0);(5,0);(6,0);(7,0);(8,0);
174   (9,0);(10,0);(11,0);(12,0);(13,0);(14,0);(15,0);(16,0);(17,0)]

```

Line 140, Column 3 vagrant@vagrant: ~\open\_source\... (no subject) - ad... vagrant@vagrant: ~\open\_source\... NPC

Spaces: 2 QiCaml 12:04 PM

The final step will be to make a bob.json file containing the Pokémons that could be on his team and the Pokémons you unlock for beating him.

An easy way to start this process is to just copy the contents of an existing JSON file and just save it as bob.json. In this case it would be bob.json

File Edit Selection Find Goto Tools Project Preferences Help

main.c -- Lab09/lab09 x tournament.ml x baldman.json x gul.ml x untitled \* battle\_controller.ml x info.ml x README.txt \* honorable.json x youngster.json v README.md -- open\_source/PokeSnowdown x main.c -- Lab08/lab08 x clia.c x

304 lines, 6519 characters selected

vagrant@vagrant: ~ /open\_source/... (no subject) - ad... vagrant@vagrant: ~

Spaces: 2 JSON 12:04 PM

File Edit Selection Find Goto Tools Project Preferences Help

main.c -- Lab09/lab09 x tournament.ml x baldman.json x gul.ml x untitled \* battle\_controller.ml x info.ml x README.txt \* honorable.json x youngster.json v README.md -- open\_source/PokeSnowdown x main.c -- Lab08/lab08 x

304 lines, 6519 characters selected

vagrant@vagrant: ~ /open\_source/... (no subject) - ad... vagrant@vagrant: ~

Spaces: 2 JSON 12:04 PM

Save File

Name: bob.json

Save in folder:

Places

Places Name Size Modified

- honorable.json 6.9 kB Yesterday at 23:29
- youngster.json 6.5 kB 03/24/2016
- psychic.json 6.5 kB 03/24/2016
- professoroak.json 6.8 kB 03/24/2016
- fatman.json 6.6 kB 03/24/2016
- falkner.json 7.1 kB 03/24/2016
- dragontamer.json 6.3 kB 03/24/2016
- campernoon.json 6.4 kB 03/24/2016
- bugcatcher.json 6.8 kB 03/24/2016
- beauty.json 6.4 kB 03/24/2016
- baldman.json 6.5 kB 03/24/2016

Cancel Save

Ability: "absol",  
Name: "absol",  
Moves: [ "absorb", "dig", "double team", "knock off", "pursuit", "superpower" ],  
Ability: "justified",  
Nature: "jolly",  
Item: "nothing",  
Evs: { "hp": "0", "attack": "252", "special-attack": "32", "defense": "0", "special-defense": "0", "speed": "224" },  
},  
{"name": "ampharos", "moves": [ "rest", "sleep talk", "volt switch", "dragon pulse" ], "ability": "static", "nature": "bold", "item": "nothing", "evs": { "hp": "252", "attack": "0", "special-attack": "4", "defense": "252", "special-defense": "0", "speed": "0" },  
},  
{"name": "arcanine", "moves": [ "flare blitz", "blaze speed", "wild charge" ], "ability": "canine", "nature": "bold", "item": "nothing", "evs": { "hp": "252", "attack": "0", "special-attack": "252", "defense": "0", "special-defense": "0", "speed": "0" },  
},  
{"name": "venusaur", "moves": [ "sludge bomb", "sludge", "hidden power", "synthesis" ], "ability": "chlorophyll", "nature": "modest", "item": "nothing", "evs": { "hp": "232", "attack": "0", "special-attack": "252", "defense": "0", "special-defense": "4", "speed": "20" },  
},  
{"name": "weavile", "moves": [ "knock off", "ice crash", "ice beam", "poison jab" ], "ability": "pressure", "nature": "jolly", "item": "life orb", "evs": { "hp": "0", "attack": "252", "special-attack": "0", "defense": "4", "special-defense": "0", "speed": "252" },  
},  
{"pokemon": [ "absol", "ampharos", "arcanine", "beedrill", "chandeleur", "chesnaught", "cobalion", "cresselia", "gengar", "nidoking", "nidognome", "sableye", "tyranitar", "venusaur", "weavile" ], "unlockable": [ "umbreon", "houndoom", "tyranitar", "mightyena", "shiftry", "sableye", "sharpedo", "cacturne", "crawdaunt", "absol", "honchkrow", "skuntank", "spiritomb", "drapion", "weavile", "liepard", "krookodile" ]}

For this part you have a lot of freedom as to what you want the trainer's team to be. You don't have to worry about the unlockable fields because we are making it so that all Pokémons will be unlockable. The unlockable field represents the Pokémons a player can unlock after beating the NPC in battle. You can add any Pokémons you want to this field! Just follow the format presented in this JSON file (`honorable.json`)

{

```
"persian": {  
    "name": "persian",  
    "moves": [  
        "pay-day",  
        "swift",  
        "night-slash",
```

```

    "fake-out"
],
"ability": "limber",
"nature": "jolly",
"item": "life orb",
"evs": {
    "hp": "0",
    "attack": "252",
    "special-attack": "0",
    "defense": "4",
    "special-defense": "0",
    "speed": "252"
}
},
}

"pokemon": ["persian"],
"unlockable": ["umbreon", "houndoom", "tyranitar", "mightyena", "shiftry", "sableye", "sharpedo",
"cacturne", "crawdaunt", "absol", "honchkrow", "skuntank", "spiritomb", "drapion", "weavile",
"liepard", "krookodile", "scratty", "zoroark", "bisharp", "mandibuzz", "hydreigon", "greninja", "pangoro",
"malamar", "venusaur", "beedrill", "arbok", "nidoqueen", "nidoking", "vileplume", "venomoth",
"victreebel", "tentacruel", "muk", "gengar", "weezing", "ariados", "crobat", "qwilfish", "dustox",
"swalot", "seviper", "roserade", "skuntank", "drapion", "toxicroak", "scolipede", "garbodor",
"amoonguss", "dragalge"]
}
}

```

You can put a single Pokémon into the JSON file and the trainer will use 6 of them!

```

{
    "persian": {
        "name": "persian",
        "moves": [
            "pay-day",
            "swift",
            "night-slash",
            "fake-out"
        ],
        "ability": "limber",
        "nature": "jolly",
        "item": "life orb",
        "evs": {
            "hp": "0",
            "attack": "252",
            "special-attack": "0",
            "defense": "4",
            "special-defense": "0",
            "speed": "252"
        }
    },
    "pokemon": ["persian"],
    "unlockable": ["umbreon", "houndoom", "tyranitar", "mightyena", "shiftry", "sableye", "sharpedo", "cacturne", "crawdaunt", "absol", "honchkrow", "skuntank", "spiritomb", "drapion", "weavile", "liepard", "krookodile"]
}

```

A good resource to find competitive teams is - <http://www.smogon.com/about>.

more specifically - <http://www.smogon.com/dex/xy/pokemon/>

For this example I will show you how to find and add a single Pokémon from Smogon (you can add whole teams as well).

Following

<http://www.smogon.com/dex/xy/pokemon/>

click on any Pokémon that interests you. For this example I will be using Zebstrika.

Note - DO NOT put Zebstrika on the opponents team. This process for this section is correct, but it did not work for some reason. Also check the info.mli file for a list of current items.

As of writing this guide (4/18/16), the current items are

Nothing | Leftovers | ChoiceBand | LifeOrb | ChoiceSpecs | ChoiceScarf  
| MegaStone | MegaStoneX | MegaStoneY | LightBall

Finding the current moves available will take a bit more work, but you can control f on the pokemon.json file.

**Pokemon**

**Abomasnow** Grass / Ice

**Abomasnow-Mega** Grass / Ice

**Abra** Psychic

**Absol** Dark

**Absol-Mega** Dark

**Acclgor** Bug

**Aerodactyl** Flying / Rock

**Aerodactyl-Mega** Flying / Rock

**Aggron** Rock / Steel

**Aggron-Mega** Steel

**Alipom** Normal

**Alakazam** Psychic

**Alakazam-Mega** Psychic

**Alomomola** Water

**Altaria** Dragon / Flying

**Altaria-Mega** Dragon / Fairy

**Amaura** Steel / Kick

**Ambipom** Normal

**Amoonguss** Grass / Poison

**Ampharos** Electric

**Abomasnow** Snow Warning, Soundproof, NU, BL2, Inner Focus, Syncronize, Magic Guard, LC, Absol, Justified, Super Luck, Pressure, RU, Absol-Mega, Dark, Magic Bounce, UU, Hydration, Unburden, Sticky Hold, RU, Acclgor, Bug, Aerodactyl, Flying, Pressure, Unnive, Rock Head, PU, Aerodactyl-Mega, Flying, Rock, Tough Claws, UU, Aggron, Rock, Steel, Heavy Metal, Sturdy, Rock Head, RU, Aggron-Mega, Steel, Filter, UU, Alipom, Normal, Pickup, Skill Link, Run Away, LC, Alakazam, Psychic, Inner Focus, Syncronize, Magic Guard, UU, Alakazam-Mega, Psychic, Trace, OU, Alomomola, Water, Healer, Regenerator, Hydration, RU, Altaria, Dragon, Flying, Cloud Nine, Natural Cure, PU, Altaria-Mega, Dragon, Fairy, Pixilate, OU, Amaura, Steel, Kick, Refrigerate, Snow Warning, LC, Ambipom, Normal, Pickup, Technician, Skill Link, RU, Amoonguss, Grass, Poison, Effect Spore, Regenerator, RU, Ampharos, Electric, Plus, Static, PU

**Zebstrika**

Type: Electric

Abilities: Lightning Rod, Motor Drive, Sap Sipper

Tier: PU

**Evolutions**

Blitzle → Zebstrika

**Strategies**

Formats: PU

**Overview**

Zebstrika sports the second highest Speed stat of all relevant Pokémons in the PU metagame, which, along with its good coverage, makes it a great revenge killer and a threatening special attacker to a lot of offensive teams. It has access to two good abilities in Sap Sipper and Lightning Rod, granting it immunities to Grass- and Electric-type moves, respectively. Zebstrika is able to distinguish itself from other Electric-types such as Raichu and Rotom-F with its high Speed and its access to Sap Sipper and Overheat, allowing it to better take on Pokémons such as Tangela and Jumpluff. On the downside, Zebstrika is extremely frail, making it very easy to revenge kill. Zebstrika is relatively weak as well, sporting only a base 80 Special Attack, making it very easy to wall by common Pokémons such as Piloswine, Stunfisk, and Clefairy.

**All-Out Attacker**

Move 1: Volt Switch  
Move 2: Thunderbolt  
Ability: Sap Sipper / Lightning Rod

Item: Life Orb

Export

Next scroll down through the strategies section and find a build you would like to use. For this example, I will be using the All-Out Attack moveset/build because it is the only one available but there could be multiple builds like Latias has.

**Defensive**

Move 1: Thunderbolt      Item: Latiasite  
 Move 2: Ice Beam      Ability: Levitate  
 Move 3: Roost      Nature: Timid  
 Move 4: Reflect Type / Thunder Wave      EVs: 252 HP / 4 SpD / 252 Spe

**Moves**

Ice Beam and Thunderbolt complement each other's coverage excellently, allowing Mega Latias to hit almost everything in the tier for neutral damage. They also let it threaten common Pokemon on balance, such as Landorus-T, Gligor, Skarmory, and non-Calm Mind Slowbro. Roost allows Mega Latias to heal itself and reliably check opposing threats throughout the match. Reflect Type changes Mega Latias's typing to match its foe's, allowing it to fare better against Ferrothorn and Tyrantitar while also allowing it to escape pursuit from Bisharp and Tyrantitar. Thunder Wave cripples most offensive Pokemon while annoying slower ones with the chance to skip that turn. Calm Mind turns Mega Latias from a support Pokemon into a bulky winch that is able to wall most attackers after a couple boosts.

**Set Details**

Maximum Speed and a Timid nature allow Mega Latias to Speed tie with opposing Latias, Latios, Mega Metagross, and Gengar while outrunning Keldeo, Terrakion, and slower threats. Maximum HP investment allows Mega Latias to tank hits as well as possible. An alternative spread of 248 HP / 68 Def / 192 Spe lets Latias outspeed positive-natured base 100s, such as Mega Charizard Y and Manaphy, as well as outrun maximum Speed Jolly Garbomp. Latiasite drastically improves Latias's bulk, improving its longevity and allowing it to take hits it usually wouldn't be able to, such as Choice Scarf Tyrantitar's Pursuit.

**Usage Tips**

Mega Latias's typing and incredible bulk allow it to switch in on and check many offensive threats, including Keldeo, Breloom, Thundurus, Manaphy, Mega Manectric, Mega Charizard Y, and Rotom-W. When pivoting in and out, use Roost on predicted switches in order to keep Mega Latias healthy and to avoid having it KOed by the Pokemon it's hoping to check. Sets running Reflect Type or Thunder Wave are typically used for the support and bulk roles, so it can switch in on and check threats. Calm Mind sets, on the other hand, are where you'll want to play more aggressively with Mega Latias. Try to remove or weaken problematic Pokemon, such as Tyrantitar, Bisharp, Jirachi, and Ferrothorn, before you start setting up. When playing against Tyrantitar, identifying which set it is running can be a huge deal, as certain sets are much more threatening to Mega Latias than others. Support Tyrantitar, for example, is often unable to do much to Mega Latias, while Choice Scarf sets cannot beat Mega Latias if it stays on the field as

**Offensive Defog**

Move 1: Draco Meteor      Item: Life Orb  
 Move 2: Psyshock      Ability: Levitate  
 Move 3: Healing Wish      Nature: Timid  
 Move 4: Defog / Roost      EVs: 72 HP / 184 SpA / 252 Spe

**Moves**

Draco Meteor is Latias's most powerful attack, able to deal heavy damage to most Pokemon that don't resist it. Psyshock gives Latias a consistent form of damage output, allowing it to deal with Keldeo, Mega Venusaur, Amoonguss, and Breloom while giving it a way to hit Fairy-types. Healing Wish allows Latias to remove all damage and status from one of its teammates, but it causes Latias to faint upon using it. Defog removes all entry hazards from the field, whereas Roost provides Latias a way of healing itself, granting it more starting power. Defog can be run over Psyshock, giving Latias a harder hit against Manaphy, Mega Charizard Y, and Azumarill while maintaining coverage on Keldeo. However, Latias will not be able to beat Mega Venusaur or Amoonguss.

**Set Details**

The HP investment prevents Latias from being 2HKOed by Life Orb Thundurus's Hidden Power Ice, while 252 Speed and a Timid nature allow it to outrun Keldeo and Terrakion and Speed tie with Latios, Gengar, and other Latias. The remaining EVs are put into Special Attack in order to give Latias more offensive power. Life Orb serves to remove Latias's damage output, with a slight cost to its health. If Thundurus isn't an issue, a spread of 4 Def / 252 SpA / 252 Spe can be run to maximize Latias's offensive presence.

**Usage Tips**

Latias is able to switch into Pokemon such as Keldeo, Manaphy, Thundurus, Mega Charizard Y, Mega Venusaur, and Amoonguss and check Breloom, Mega Manectric, and Rotom-W. Bear in mind that many of these Pokemon are commonly paired with Pursuit trappers, so be wary of a double switch or Volt Switch as Latias comes in. Defog should be used when you need to remove entry hazards from your own side of the field, but be aware if your opponent has a Bisharp or Thundurus because Defog triggers Defiant, which could prevent them from using Defog for offense. Defog is also useful for covering a team that can't beat Latias, as this will allow it to stay healthy throughout the match. When running Healing Wish, wait to use it until Latias is no longer needed or until a crippled teammate would be more useful to have healthy again. Using Healing Wish too early leaves the team without an answer to several potent attackers, so it's best to wait until they have been dealt with before getting rid of your answer to them.

**Team Options**

But back to Zebstrika, whose All-Out Attacker build looks like -

**All-Out Attacker**

Move 1: Volt Switch  
Move 2: Thunderbolt  
Move 3: Overheat  
Move 4: Hidden Power Ice

Item: Life Orb  
Ability: Sap Sipper / Lightning Rod  
Nature: Timid  
EVs: 252 SpA / 4 SpD / 252 Spe

**Moves**

Volt Switch allows Zebstrika to get off chip damage and gain momentum against Pokemon it can't deal much damage to on a predicted switch such as Grumpig and Clefairy. Thunderbolt is stronger than Volt Switch, making it a great choice to allow Zebstrika to clean late-game. Overheat allows Zebstrika to hit Grass-types such as Roselia, Jumpluff, and Tangela at the cost of dropping its Special Attack by two stages. Hidden Power Ice allows Zebstrika to take on Ground- and Dragon-types such as Fraxure and Vibra.

**Set Details**

Maximum Special Attack and Speed investment along with a Timid nature and a Life Orb makes Zebstrika as fast and as powerful as possible. Magnet can be used in order to bluff Choice sets when Zebstrika is KOing a foe without having to take recoil from Life Orb; on the downside, it only boosts Zebstrika's Electric-type moves. Sap Sipper allows Zebstrika to take on common Grass-types such as Tangela and Jumpluff, while Lightning Rod grants Zebstrika an immunity to Electric-type moves while additionally granting it a Special Attack boost if it is targeted by one.

**Usage Tips**

Zebstrika should mainly use Volt Switch in order to gain momentum against its checks while also dealing damage, although you must be wary of Ground-types, which are immune to it. Thunderbolt is preferred when the opponent doesn't have a good check to Zebstrika or if the opposing team is weakened enough for Zebstrika to clean up. If Zebstrika is running Sap Sipper, it should aim to switch into Grass-type moves such as Sleep Powder and Seed Bomb from Pokemones such as Jumpluff, and if it is running Lightning Rod, it should switch into Electric-type moves. If the opponent has a Piloswine, Overheat should be used on the first predicted switch, and Hidden Power Grass followed by Overheat should be used on the second one, all of which can KO Piloswine.

**Team Options**

Pokemon with access to U-turn such as Ninjask and Pelipper can form a VoltTurn core with Zebstrika to keep constant momentum against opponents. Pokemon with access to Stealth Rock, Spikes, or Toxic Spikes such as Piloswine and Roselia allow Zebstrika to net certain KOs, such as the 2HKO on Machoke after Stealth Rock. Wallbreakers such as Simipour and Stoutland can weaken or KO Zebstrika's checks.

gitaddfactoryset.png gitaddbob.png gitaddbobobj.json gitaddbobpng.png gitaddtoumam...\_png sample\_json.png factorysetjson.png

You will want to fill in the fields of the JSON file with the details from this Smogon guide. We will be replacing Absol with Zebstrika. For Hidden Power Ice we will just use hidden-power.

```

{
  "absol": {
    "name": "absol",
    "moves": [
      "swords-dance",
      "knock-off",
      "pursuit",
      "superpower"
    ],
    "ability": "justified",
    "nature": "jolly",
    "item": "nothing",
    "evs": {
      "hp": "0",
      "attack": "252",
      "special-attack": "32",
      "defense": "0",
      "special-defense": "0",
      "speed": "24"
    }
  },
  "ampharos": {
    "name": "ampharos",
    "moves": [
      "rest",
      "sludge-ball",
      "volt-switch",
      "dragon-pulse"
    ],
    "ability": "static",
    "nature": "bold",
    "item": "nothing",
    "evs": {
      "hp": "252",
      "attack": "0",
      "special-attack": "4",
      "defense": "252",
      "special-defense": "0",
      "speed": "0"
    }
  },
  "arcanine": {
    "name": "arcanine",
    "moves": [
      "flame-blitz",
      "extreme-speed",
      "wild-charge",
      "hidden-power"
    ],
    "ability": "overheat"
  }
}

```

```

1  {
2    "zebstrika": {
3      "name": "zebstrika",
4      "moves": [
5        "volt-switch",
6        "thunderbolt",
7        "overheat",
8        "hidden-power"
9      ],
10     "ability": "sap-sipper",
11     "nature": "timid",
12     "item": "life-orb",
13     "evs": {
14       "hp": "gr",
15       "attack": "o",
16       "special-attack": "252",
17       "defense": "0",
18       "special-defense": "4",
19       "speed": 252
20     }
21   },
22   "ampharos": {
23     "name": "ampharos",
24     "moves": [
25       "rest",
26       "sleep-talk",
27       "volt-switch",
28       "dragon-pulse"
29     ],
30     "ability": "static",
31     "nature": "bold",
32     "item": "nothing",
33     "evs": {
34       "hp": "252",
35       "attack": "0",
36       "special-attack": "4",
37       "defense": "252",
38       "special-defense": "0",
39       "speed": "0"
40     }
41   },
42   "arcanine": {
43     "name": "arcanine",
44     "moves": [
45       "flare-blitz",
46       "extreme-speed",
47       "wild-charge",
48     ]
49 }

```

Line 21 Column 5 Saved - open\_source/PokeSnowdown/data/tournament/NPCjson/bob.json [UTF-8] vagrant@vagr... ~ open\_source/... [vagrant@vagr... (data) [Zebstrika | XY |...]

Spaces: 2 JSON 10:04 AM

Make sure the "pokemon": line stays updated with the changes you make . If you are replacing a Pokéémon, delete the old Pokéémon from this list and add the new one you made.

"pokemon": [ "absol", "ampharos", "arcanine", "beedrill", "chandelure", "chesnaught", "cobalion", "cresselia", "gengar", "nidoking", "nidoqueen", "sableye", "tyranitar", "venusaur", "weavile"], becomes

"pokemon": [ "zebstrika", "ampharos", "arcanine", "beedrill", "chandelure", "chesnaught", "cobalion", "cresselia", "gengar", "nidoking", "nidoqueen", "sableye", "tyranitar", "venusaur", "weavile"],

```

260   },
261   "weavile": {
262     "name": "weavile",
263     "moves": [
264       "knock-off",
265       "icicle-crash",
266       "ice-shard",
267       "poison-jab"
268     ],
269     "ability": "pressure",
270     "nature": "jolly",
271     "item": "life orb",
272     "evs": {
273       "hp": "0",
274       "attack": "252",
275       "special-attack": "0",
276       "defense": "4",
277       "special-defense": "0",
278       "speed": "252"
279     }
280   },
281   "pokemon": [ "absol", "ampharos", "arcanine", "beedrill", "chandelure", "chesnaught", "cobalion", "cresselia", "gengar", "nidoking", "nidoqueen", "sableye", "tyranitar", "venusaur", "weavile" ],
282   "unlockable": [ "umbreon", "houndoom", "tyranitar", "mightyena", "shiftry", "sableye", "sharpedo", "cacturne", "crawdaunt", "absol", "honchkrow", "skuntank", "spiritomb", "drapion", "weavile", "liepard", "krookodile" ],
283   "locked": [ "moltres", "raikou", "ho-oh", "mewtwo", "mew", "mewtwo-y", "mewtwo-x", "mewtwo-alpha", "mewtwo-beta", "mewtwo-gamma", "mewtwo-delta", "mewtwo-epsilon", "mewtwo-zeta", "mewtwo-eta", "mewtwo-ksi", "mewtwo-omega", "mewtwo-psi", "mewtwo-phi", "mewtwo-ksi-phi", "mewtwo-ksi-psi", "mewtwo-ksi-ksi", "mewtwo-ksi-ksi-phi", "mewtwo-ksi-ksi-psi", "mewtwo-ksi-ksi-ksi", "mewtwo-ksi-ksi-ksi-phi", "mewtwo-ksi-ksi-ksi-psi", "mewtwo-ksi-ksi-ksi-ksi", "mewtwo-ksi-ksi-ksi-ksi-phi", "mewtwo-ksi-ksi-ksi-ksi-psi", "mewtwo-ksi-ksi-ksi-ksi-ksi", "mewtwo-ksi-ksi-ksi-ksi-ksi-phi", "mewtwo-ksi-ksi-ksi-ksi-ksi-psi", "mewtwo-ksi-ksi-ksi-ksi-ksi-ksi" ],
284 }

```

5 characters selected vagrant@vagr... ~ open\_source/... [vagrant@vagr... (data) [no subject] - ad... Spaces: 2 JSON 10:04 AM

```

288     },
289     "weavile": {
290       "name": "weavile",
291       "moves": [
292         "knock-off",
293         "icicle-crash",
294         "ice-shard",
295         "poison-jab"
296       ],
297       "ability": "pressure",
298       "nature": "jolly",
299       "item": "life orb",
300       "evs": [
301         "hp": "0",
302         "attack": "252",
303         "special-attack": "0",
304         "defense": "4",
305         "special-defense": "0",
306         "speed": "252"
307       }
308     },
309     "pokemon": [
310       "zebstrika", "ampharos", "arcanine", "beedrill", "chandelure", "chesnaught", "cobalion", "cresselia", "gengar", "nidoking", "nidoqueen", "sableye", "tyranitar", "venusaur", "weavile", "umbreon", "houndoom", "tyranitar", "mightyena", "shiftry", "sharpedo", "cacturne", "crawdaunt", "absol", "honchkrow", "skuntank", "spiritomb", "drapion", "weavile", "liepard", "krookodile"
311     ],
312     "unlockable": [
313       "umbreon", "houndoom", "tyranitar", "mightyena", "shiftry", "sharpedo", "cacturne", "crawdaunt", "absol", "honchkrow", "skuntank", "spiritomb", "drapion", "weavile", "liepard", "krookodile"
314     ]
315   }
316 }

```

otherwise you can just append the Pokémons you are adding to the end of the list. For example  
 "pokemon": [ "absol", "ampharos", "arcanine", "beedrill", "chandelure", "chesnaught", "cobalion",  
 "cresselia", "gengar", "nidoking", "nidoqueen", "sableye", "tyranitar", "venusaur", "weavile",  
 "zebstrika"],

You can repeat this process for each Pokémon you would like to add!

Note the ability lightningrod is spelled lightning-rod.

Also if you get this error,

gardevoir

```

(((pid 2161) (thread_id 0))
((human_readable 2016-04-18T12:07:23-0400)
(int63_ns_since_epoch 1460995643778754000))
"unhandled exception in Async scheduler"
("unhandled exception"
((src/monitor.ml.Error_
  ((exn (Failure "Does not occur")))
  (backtrace
    ("Raised at file \"pervasives.ml\"", line 30, characters 22-33"
     "Called from file \"pokemon.ml\"", line 807, characters 13-73"
     "Called from file \"list.ml\"", line 55, characters 20-23"
     "Called from file \"battle_controller.ml\"", line 130, characters 2-38"
     "Called from file \"battle_controller.ml\"", line 2525, characters 14-39"
     "Called from file \"src/job_queue.ml\"", line 164, characters 6-47" ""))
  (monitor
    (((name main) (here ()) (id 1) (has_seen_error true)
      (is_detached false) (kill_index 0)))))))
((pid 2161) (thread_id 0))))

```

You are trying to use an ability, move or item that does not exist in the game files.

These steps, while correct, did not work for Zebstrika in the end.

\*\*\*\*I will redo these steps above for a Pokémon that should work, you can skip this part if you want.

Now we will be using Gardevoir.

The screenshot shows the PokéSnowdown website interface. On the left is a sidebar with icons for SEARCH, POKEMON, MOVES, ABILITIES, ITEMS, and TYPES. The main content area displays the stats and moveset for Gardevoir:

**Wallbreaker**

Item: Gardevoirite  
Ability: Trace  
Nature: Timid / Modest  
EVs: 16 HP / 8 Def / 232 SpA / 252 Spe

**Moves**

Move 1: Hyper Voice  
Move 2: Psyshock  
Move 3: Focus Blast  
Move 4: Will-O-Wisp / Taunt / Calm Mind

**Set Details**

Trace is the preferred ability before Mega Evolution, as it makes Gardevoir capable of turning a foe's ability against them. Some example of this include countering specially defensive Heatran with Taunt, stealing Regenerator from Pokemon such as Amaougnus and Slowbro, utilizing Magic Bounce from Mega Sableye to reflect Will-O-Wisp, taking advantage of Manectric's Lightning Rod, Intimidating Landorus-T and Gyarados, and trapping Magnezone locked into a Hidden Power. Additionally, Trace lets Gardevoir revenge kill weakened Dragonite with the aid of Multiscale, revenge kill weather sweepers such as Modest Kingdra and Adamant Excadrill if it is using a Timid nature, and Synchronize burn Mew as well in case it lacks a physical attack. The last move is Calm Mind. This defensive move allows Gardevoir to avoid the PHKO from Life Orb Latios's Psyshock. The rest of the EVs are put into Speed, to make Gardevoir capable of outspeeding all defensive Pokemon and some slower offensive ones, such as Breloom and Tyritaran, and into Special Attack, to make Gardevoir hit very hard. A Timid nature prevents Gardevoir's matchup against offensive teams by allowing it to outspeed Pokemon such as Jolly Excadrill, Pinsir on the turn it Mega Evolves, Jolly Landorus-T, and Timid Heatran. It also makes Gardevoir faster than Jolly Breloom and Jolly Bisharp on the turn it Mega Evolves, meaning Gardevoir can burn them with Will-O-Wisp before they can attack it, and makes Gardevoir capable of revenge killing most weather sweepers, as they usually do not run Speed-boosting natures. A Modest nature is, however, definitely viable if you would prefer the extra power instead.

**Usage Tips**

This set works best against stall and balance, destroying a lot of teams by just clicking Hyper Voice, using Focus Blast against Steel-types, and using Psyshock together with Taunt to get past dedicated special walls such as Chansey and Poison-types such as Mega Venusaur and Amaougnus. Gardevoir is not deadweight against offensive teams, however, because they usually have little to no switch-ins for it. Avoid physical attackers such as Azumarill, Talonflame, and Landorus-T, as Gardevoir has very poor physical bulk. Gardevoir actually has very good Special Defense, though, and it can use that to check Pokemon such as Tornadus-T, Raikou, and Substitute + Calm Mind Keldeo. Gardevoir can also use its typing to switch into Dragon-types and threaten them out with Pililate-boosted Hyper Voice, although it has to watch out for coverage moves.

**Team Options**

replacing Zebstrika

The screenshot shows a Sublime Text editor window displaying a JSON file named `bob.json`. The file contains the configuration for a tournament, including the replacement of Zebstrika with Gardevoir and other pokemons like Ampharos and Arcanine.

```
1  "zebstrika": {  
2    "name": "zebstrika",  
3    "moves": [  
4      "taunt",  
5      "rage",  
6      "tail-whip",  
7      "flame-charge",  
8    ],  
9    "ability": "lightning-rod",  
10   "nature": "timid",  
11   "item": "life-orb",  
12   "evs": {  
13     "sp": 0,  
14     "attack": "0",  
15     "special-attack": "252",  
16     "defense": "0",  
17     "special-defense": "4",  
18     "speed": "252"  
19   },  
20 },  
21 },  
22 "ampharos": {  
23   "name": "ampharos",  
24   "moves": [  
25     "rest",  
26     "sleep-talk",  
27     "volt-switch",  
28     "dragon-pulse",  
29   ],  
30   "ability": "static",  
31   "nature": "bold",  
32   "item": "nothing",  
33   "evs": {  
34     "hp": "252",  
35     "attack": "0",  
36     "special-attack": "4",  
37     "defense": "252",  
38     "special-defense": "0",  
39     "speed": "0"  
40   },  
41 },  
42 "arcanine": {  
43   "name": "arcanine",  
44   "moves": [  
45     "flare-blitz",  
46     "extreme-speed",  
47     "wild-charge",  
48   ]  
49 },  
50 }  
51 
```

Note that instead of writing gardevoirite (or any mega stone) as an item you will need to use MegaStone/MegaStoneX/MegaStoneY.



```

271     "nature": "modest",
272     "item": "nothing",
273     "evs": {
274       "hp": "232",
275       "attack": "0",
276       "special-attack": "252",
277       "defense": "0",
278       "special-defense": "4",
279       "speed": "20"
280     },
281   },
282   "weavile": {
283     "name": "weavile",
284     "moves": [
285       "knock-off",
286       "icicle-crash",
287       "ice-shard",
288       "poison-jab"
289     ],
290     "ability": "pressure",
291     "nature": "jolly",
292     "item": "life orb",
293     "evs": {
294       "hp": "0",
295       "attack": "252",
296       "special-attack": "0",
297       "defense": "4",
298       "special-defense": "0",
299       "speed": "252"
300     }
301   },
302   "pokemon": [
303     "gardevoir", "ampharos", "arcanine", "beedrill", "chandelure", "chesnaught", "cobalion", "cresselia", "gengar", "nidoking", "nidoleague", "sableye", "tyranitar", "venusaur", "weavile"],
304   "unlockable": [
305     "umbreon", "houndoom", "tyranitar", "mightyena", "shiftry", "sharpedo", "cacturne", "crawdaunt", "absol", "honchkrow", "skuntank", "spiritomb", "drapion", "weavile", "liepard", "krookodile"
306   ]
307 }

```

The Pokémons listed on the "pokemon": line are all the possible Pokémons this NPC can use. There needs to be at least one Pokémon in the JSON file, but you can have however many you want. All moves/strings should be lowercase as you can see from this example. Some moves/abilities may not exist in the game at the time, so if you get a compiler error that may be the reason why. Make sure that you put a '-' in between moves/abilities that contain two words, for example razor leaf is razor-leaf.

Once the JSON file is done, you will have to edit the factoryset.json file and put the line.  
"bob":0 at the end of this list.

```

1   "r", "combusken", "frogadier", "servine"], "baldman": 0, "beauty": 0, "bugcatcher": 0, "campernerd": 0, "dragontamer": 0, "falkner": 0, "fatman": 0, "psychic": 0, "youngster": 0, "professor oak": 0, "play oak": 0, "honorable": 0, "bob": 0}

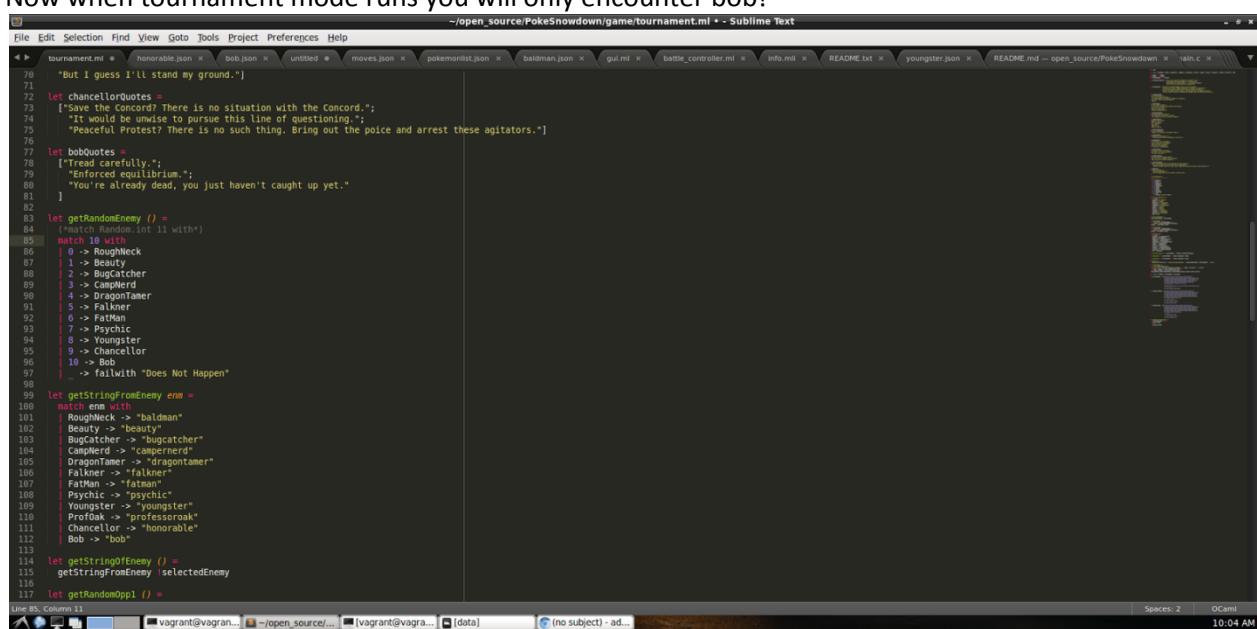
```

At this point if you would like to test the NPC out before trying to push it to the main repository, which I highly recommend you do, you should follow these steps.

Edit this line in tournament.ml

```
let getRandomEnemy () =
  match Random.int 11 with
  to be
let getRandomEnemy () =
  (*match Random.int 11 with*)
  match 10 with (where 10 is the bob npc in this case)
*the (* .... *) notation comments out a line in OCaml.
```

Now when tournament mode runs you will only encounter bob!



```
78   "But I guess I'll stand my ground."
79
80 let chancellorQuotes =
81   ["To the Concord. There is no situation with the Concord";
82   "It would be unwise to pursue this line of questioning.";
83   "Peaceful Protest? There is no such thing. Bring out the police and arrest these agitators."]
84
85 let bobQuotes =
86   ["I'm carefuly";
87   "Enforced equilibrium";
88   "You're already dead, you just haven't caught up yet."]
89
90 let getRandomEnemy () =
91   (match Random.int 11 with*)
92   match 10 with
93   | 0 -> RoughNeck
94   | 1 -> Beauty
95   | 2 -> BugCatcher
96   | 3 -> CampHerd
97   | 4 -> DragonTamer
98   | 5 -> Falkner
99   | 6 -> FatMan
100  | 7 -> Psychic
101  | 8 -> Youngster
102  | 9 -> Chancellor
103  | 10 -> Bob
104  | _ -> failwith "Does Not Happen"
105
106 let getStringFromEnemy enn =
107   match enn with
108   | RoughNeck -> "bulldman"
109   | Beauty -> "beauty"
110   | BugCatcher -> "bugcatcher"
111   | CampHerd -> "campernerd"
112   | DragonTamer -> "dragontamer"
113   | Falkner -> "falkner"
114   | FatMan -> "fatman"
115   | Psychic -> "psychic"
116   | Youngster -> "youngster"
117   | ProfessorBak -> "professoroak"
118   | Chancellor -> "honorable"
119   | Bob -> "bob"
120
121 let getStrLnOfEnemy () =
122   getStringFromEnemy !selectedEnemy
123
124 let getRandomOpponent () =
```

Recompile the game ( go to the game folder and run the command

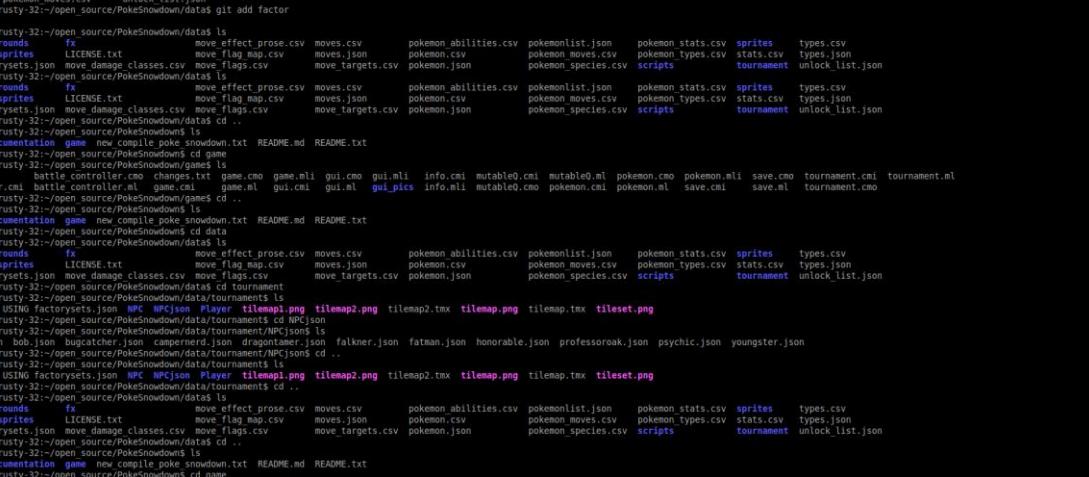
```
ocamlfind ocamlc -g -thread -package lablgtk2 -package async -package yojson -package str -linkpkg
info.mli pokemon.mli gui.mli game.mli pokemon.ml mutableQ.ml ai.ml save.ml tournament.ml gui.ml
battle_controller.ml game.ml -o game)
```

and run it again!

```
vagrant@vagrant-ubuntu-trusty-32: ~/open_source/PokeSnowdown/game

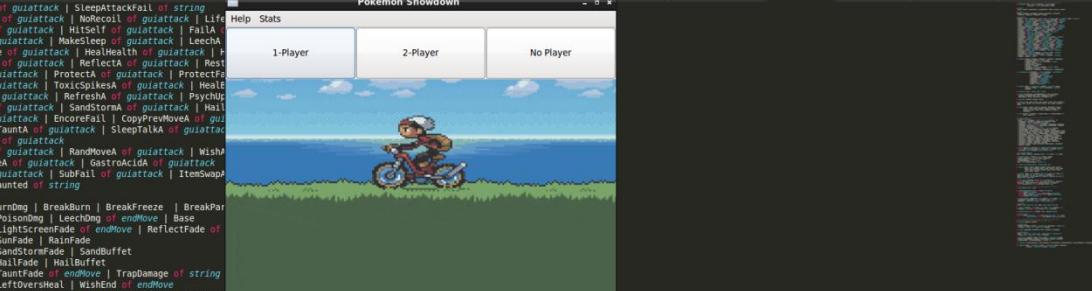
File Edit Jobs Help
LICENSE.txt pokemon.json types.csv
pokemon_damage_classes.csv pokemonlist.json types.json
move_effect_prose.csv pokemon_moves.csv unlock_list.json
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/games git add factor
sets.json

vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/games ls
LICENSE.txt pokemons.csv move_effect_prose.csv moves.csv pokemon_abilities.csv pokemonlist.json pokemon_stats.csv sprites types.csv
abilities.json back-sprites LICENSE.txt move_flag_map.csv moves.json pokemon.csv pokemon_moves.csv pokemon_types.csv stats.csv types.json
ability_prose.csv factories.json move_damage_classes.csv move_flags.csv move_targets.csv pokemon.json pokemon_species.csv scripts tournament unlock_list.json
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/games ls
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/games ls
LICENSE.txt pokemons.csv move_effect_prose.csv moves.csv pokemon_abilities.csv pokemonlist.json pokemon_stats.csv sprites types.csv
abilities.json back-sprites LICENSE.txt move_flag_map.csv moves.json pokemon.csv pokemon_moves.csv pokemon_types.csv stats.csv types.json
ability_prose.csv factories.json move_damage_classes.csv move_flags.csv move_targets.csv pokemon.json pokemon_species.csv scripts tournament unlock_list.json
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/games cd ..
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/games ls
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/games README.md README.txt
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/games game
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/games ls
ai_cml ai_ml battle_controller.cmo changes.txt game.cmo game.ml gui.cmo gui.ml info.cmi mutable0.cmi mutable0.ml pokemon.cmo pokemon.ml save.cmo tournament.cmi tournament.ml
ai_ml battle_controller.cml changes.cml game.cml game.ml gui.cml gui.ml gui_pics info.ml mutable0.cmo pokemon.cml pokemon.ml save.cml save.ml tournament.cmo
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/games cd ..
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown ls
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown cd data
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/data
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/data
LICENSE.txt pokemons.csv move_effect_prose.csv moves.csv pokemon_abilities.csv pokemonlist.json pokemon_stats.csv sprites types.csv
abilities.json back-sprites LICENSE.txt move_flag_map.csv moves.json pokemon.csv pokemon_moves.csv pokemon_types.csv stats.csv types.json
ability_prose.csv factories.json move_damage_classes.csv move_flags.csv move_targets.csv pokemon.json pokemon_species.csv scripts tournament unlock_list.json
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/data/tournaments ls
backup -RENAME TO USING Factories.json NPC NPCjson Player tilemap1.png tilemap2.png tilemap2.tmx tilemap.png tilemap.tmx tileset.png
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/data/tournaments cd NPC.json
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/data/tournament/NPC.jsonls
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/data/tournament/NPC.json
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/data/tournament/NPC.jsoncd ..
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/data/tournaments ls
backup -RENAME TO BEFORE USING Factories.json NPC NPCjson Player tilemap1.png tilemap2.png tilemap2.tmx tilemap.png tilemap.tmx tileset.png
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/data/tournaments cd ..
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/data/tournaments ls
LICENSE.txt pokemons.csv move_effect_prose.csv moves.csv pokemon_abilities.csv pokemonlist.json pokemon_stats.csv sprites types.csv
abilities.json back-sprites LICENSE.txt move_flag_map.csv moves.json pokemon.csv pokemon_moves.csv pokemon_types.csv stats.csv types.json
ability_prose.csv factories.json move_damage_classes.csv move_flags.csv move_targets.csv pokemon.json pokemon_species.csv scripts tournament unlock_list.json
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/games cd ..
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/games ls
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/games ./game
game; command not found
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/games ./game


```

run it using the command `./game`

Click 1 player -> tournament then use the W A S D to move around and press H to talk to the npc you want to test.

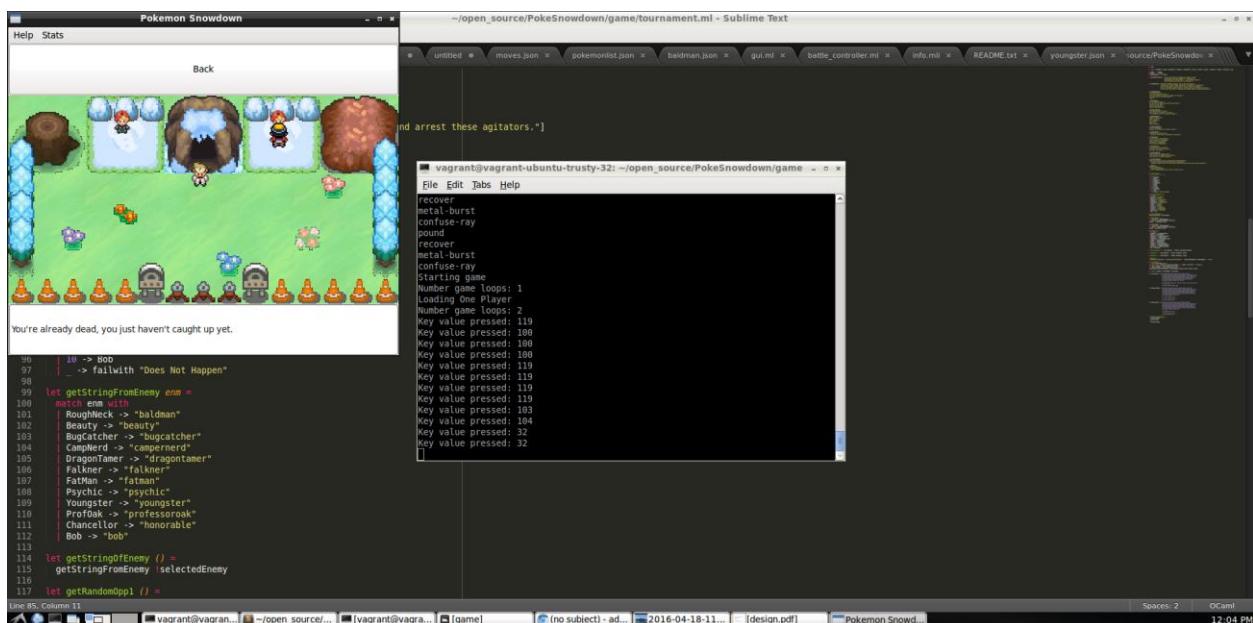
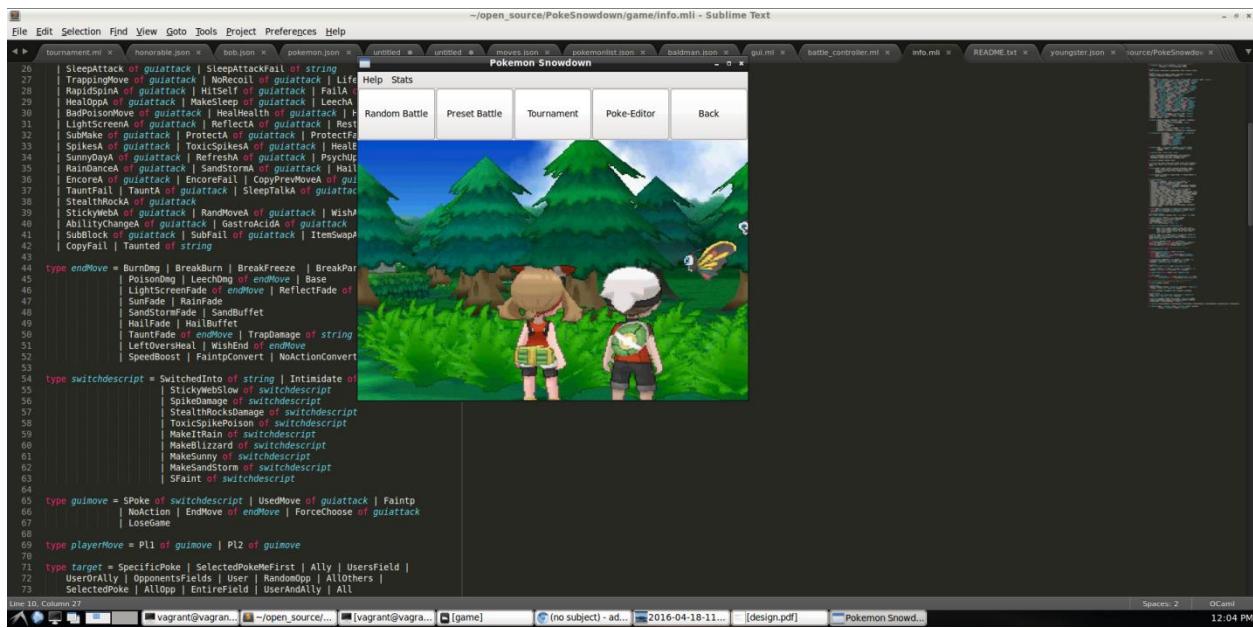


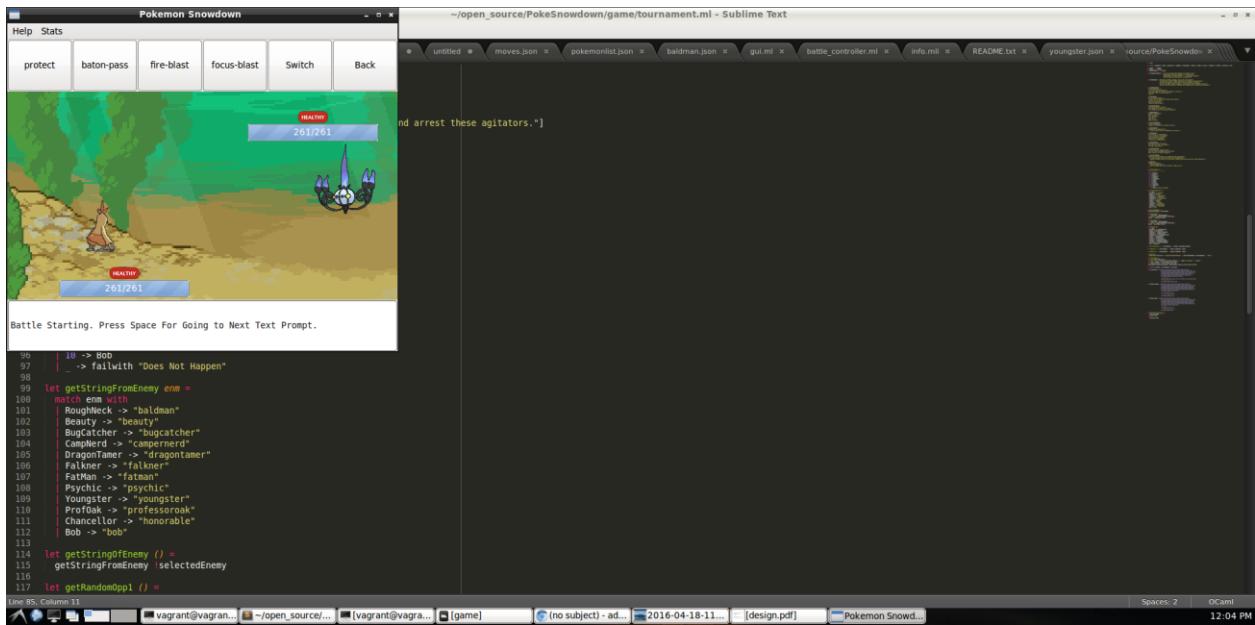
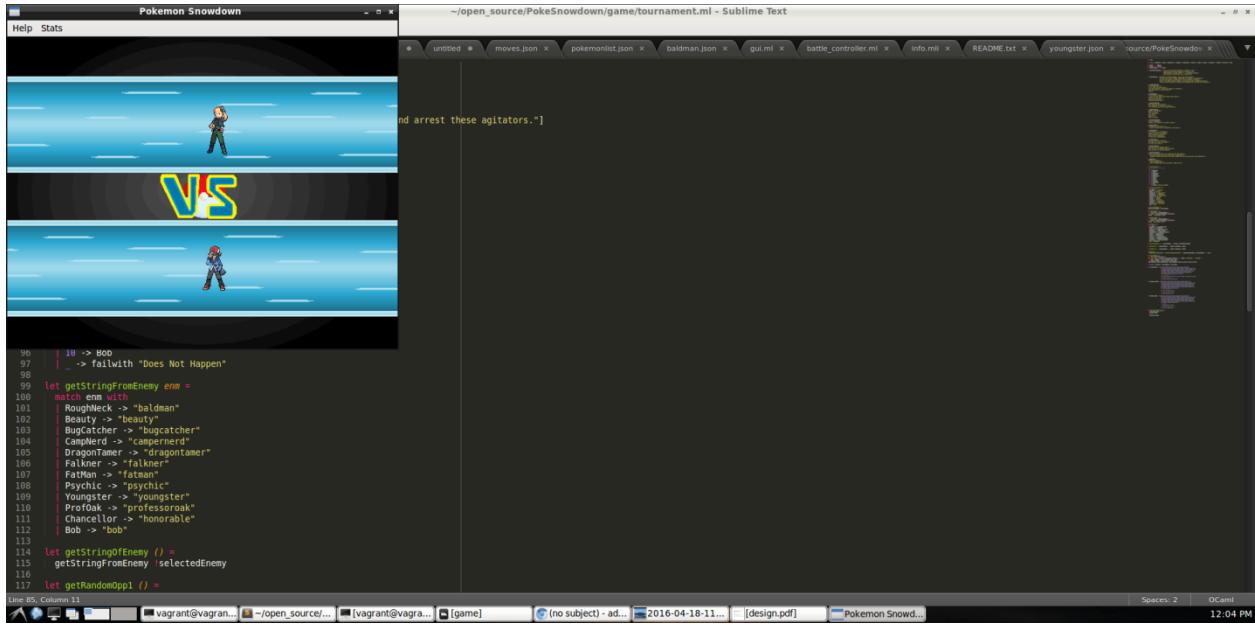
The screenshot shows a Sublime Text window with multiple tabs open, displaying the source code for the *Pokemon Snowdown* game. The main view contains the following code:

```
File Edit Selection Find View Goto Tools Project Preferences Help
Line 10, Column 27
- /open_source/PokeSnowdown/game/info.mii - Sublime Text

26 | SleepUpset of guiaattack | SleepAttackFall of string
27 | TrappingMove of guiaattack | NoSelf of guiaattack | Life
28 | RapidSpin of guiaattack | HitSelf of guiaattack | Leech
29 | HeadBopA of guiaattack | Makesleep of guiaattack | LeechA
30 | HeadBopB of guiaattack | MakeSleep of guiaattack | LeechB
31 | LightScreenA of guiaattack | ReflectA of guiaattack | Rest
32 SubMove of guiaattack | ProtectA of guiaattack | ProtectFa
33 | SpikesA of guiaattack | ToxicSpikesA of guiaattack | Heale
34 | SunnyDays of guiaattack | RefreshA of guiaattack | Psychu
35 | ThunderShockA of guiaattack | ThunderShock of guiaattack | H
36 | Encore of guiaattack | EncoreFall | CopyPrevMoveA of guia
37 | TauntFall | Taunta of guiaattack | SleepTalkA of guiaattack
38 | StealthRockA of guiaattack
39 | StickyWeb of guiaattack | RandomMove of guiaattack | Mischa
40 | DoubleChange of guiaattack | GastroKidaA of guiaattack
41 | Subblock of guiaattack | Subfall of guiaattack | ItemSwap
42 | CopyFall | Taunted of string
43
44 type endMove = BurnBng | Breakburn | BreakFreeze | BreakPar
45 | Poisoning | Leeching of endMove | Base
46 | LightScreenFade of endMove | ReflectFade of
47 | SunFade | RainFade
48 | Sandstorm | SandBuffet
49 | Hailstone | HailFest
50 | TauntFade of endMove | TrapDamage of string
51 | LeftoversHeal | WishEnd of endMove
52 | SpeedBoost | FaintConvert | NoActionConvert
53
54 type switchdescript = SwitchedInto of string | Intimidate of
55 | StickyWebSlow of switchdescript
56 | SpikeDamage of switchdescript
57 | StealthRockDamage of switchdescript
58 | ToxicSpikesSlow of switchdescript
59 | Makeithain of switchdescript
60 | MakeElizard of switchdescript
61 | MakeSuny of switchdescript
62 | MakesandStorm of switchdescript
63 | Sfaint of switchdescript
64
65 type guimove = Spoke of switchdescript | UsedMove of guiaattack | Faintp
66 | NoAction | EndMove of endMove | ForceChoose of guiaattack
67 | LoseGame
68
69 type playerMove = Pl1 of guimove | Pl2 of guimove
70
71 type target = SpecificPoke | SelectedPokeFirst | Ally | UsersField |
72 UserOnly | OpponentsField | User | RandomOpp | AllOthers |
73 SelectedPoke | AllOpp | EntireField | UserAndOnly | All
Line 10, Column 27
[vagrant@vagr... ~] vagrant@vagr... [-/open_source... [vagrant@vagr... [game] (no subject) - ad... 2016-04-18-11... [design.pdf] Pokemon Snowd... Spaces: 2 DCent

```





If you make it to the battle screen then your NPC is fully working!

\*\*\*\*Make sure you edit the match random line check back to normal before you add or commit your tournament.ml file to the repository.

```

70 "But I guess I'll stand my ground."
71
72 let chancellorQuotes =
73   ["Save the Concord? There is no situation with the Concord ";
74    "It would be unwise to pursue this line of questioning.";
75    "Peaceful Protest? There is no such thing. Bring out the police and arrest these agitators."]
76
77 let bobQuotes =
78   ["I read carefully.",
79    "reinforced equilibrium.";
80    "You're already dead, you just haven't caught up yet."]
81
82
83 let getRandomEnemy () =
84   match Random.int 11 with
85   (*match 10 with*)
86   | 0 -> RoughNeck
87   | 1 -> Beauty
88   | 2 -> BugCatcher
89   | 3 -> CampFerd
90   | 4 -> DragonTamer
91   | 5 -> Falkner
92   | 6 -> FatMan
93   | 7 -> PlayOak
94   | 8 -> Youngster
95   | 9 -> Chancellor
96   | 10 -> Bob
97   | _ -> failwith "Does Not Happen"
98
99 let getStringFromEnemy enm =
100   match enm with
101   | RoughNeck -> "baldaan"
102   | Beauty -> "beauty"
103   | BugCatcher -> "bugcatcher"
104   | CampFerd -> "campernerd"
105   | DragonTamer -> "dragontamer"
106   | Falkner -> "falkner"
107   | FatMan -> "fatman"
108   | PlayOak -> "psychic"
109   | Youngster -> "youngster"
110   | ProfOak -> "professoroak"
111   | Chancellor -> "honorable"
112   | Bob -> "bob"
113
114 let getStringOfEnemy () =
115   getStringFromEnemy !selectedEnemy
116
117 let getRandomOppi () =

```

Also in factorysets.json make sure all of these values are set to 0  
 "baldman":0,"beauty":0,"bugcatcher":0,"campernerd":0,"dragontamer":0,"falkner":0,"fatman":0,"psychic":0,"youngster":0,"professor oak":0,"play oak":0,"honorable":0,"bob":0}

If you beat a trainer in tournament mode during your testing, these values can go up which is not what you want for the main program.

Once you have done all that it's time to add, commit, and push your changes!

You will need to git add the following files :

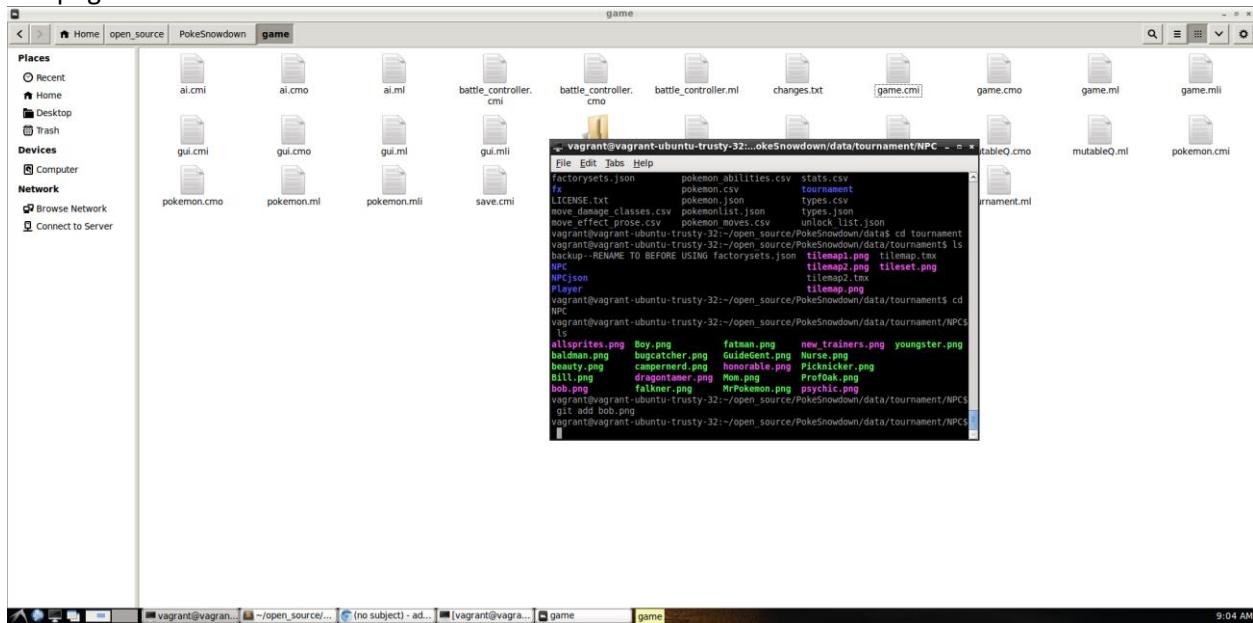
bob.json located at PokeSnowdown->data->tournament->NPCJson

```

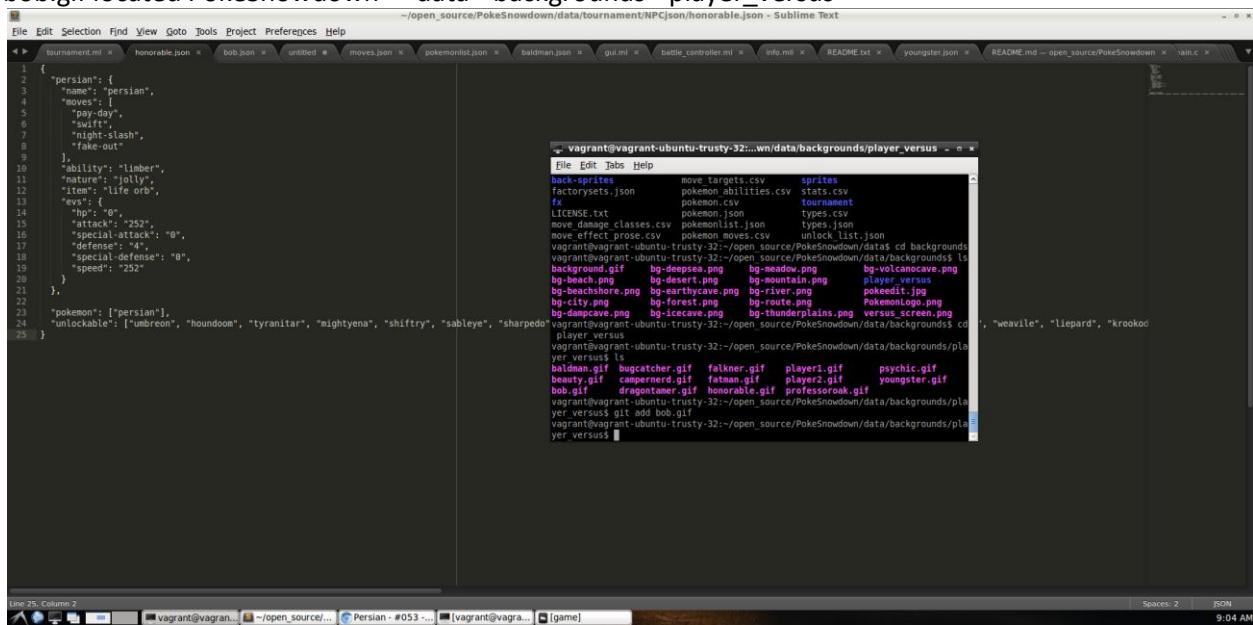
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/data/tournament/NPC$ ls
allsprites.png Boy.png fatman.png new_trainers.png youngster.png
baldman.png bugcatcher.png guidelgent.png murse.png
bill.png dragontamer.png mom.png ProfOak.png
bob.png falkner.png MrPokemon.png psychic.png
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/data/tournament/NPC$ cd vanguard
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/data/tournaments ls
backup -RENAME TO BEFORE USING factorysets.json tilemap1.png tilemap.tmx
NPC
NPCJson
playoak.png
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/data/tournaments cd NPCJson
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/data/tournament/NPC$ ls
baldman.json bugcatcher.json falkner.json professoroak.json
beauty.json campernerd.json fatman.json psychic.json
bob.json dragontamer.json honorable.json youngster.json
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/data/tournament/NPC$ vanguard git add bob.json
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/data/tournament/NPC$ vanguard git commit -m "Initial commit of NPCJson"
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/data/tournament/NPC$ vanguard git push origin master

```

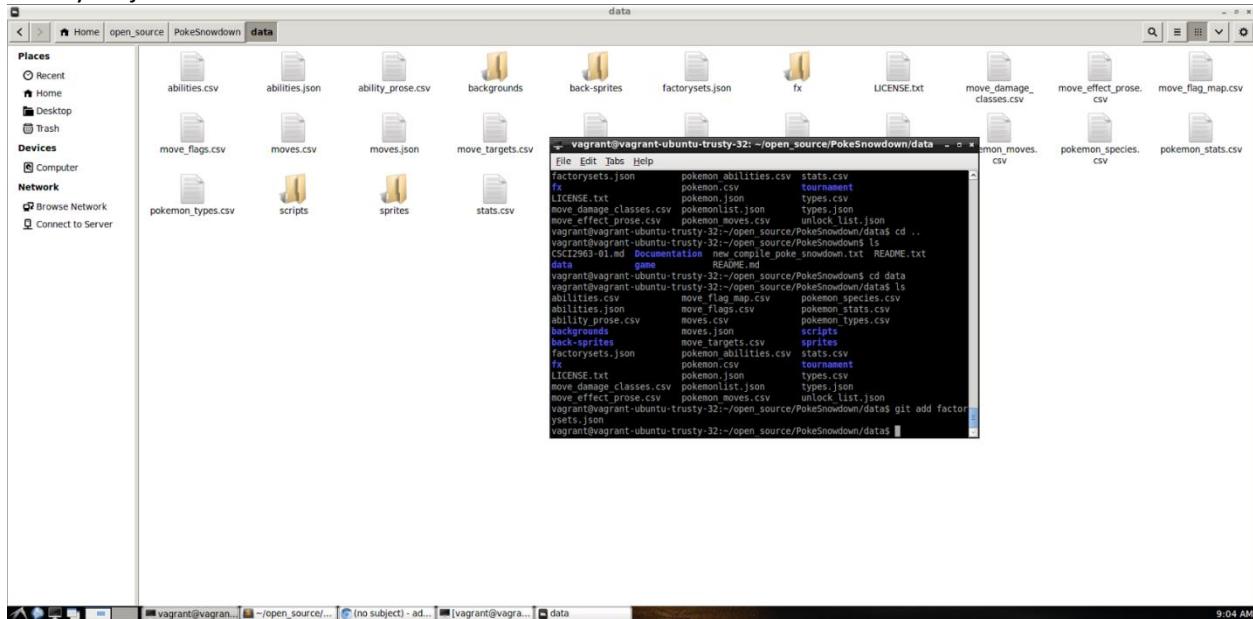
bob.png located at PokeSnowdown -> data -> tournament -> NPC



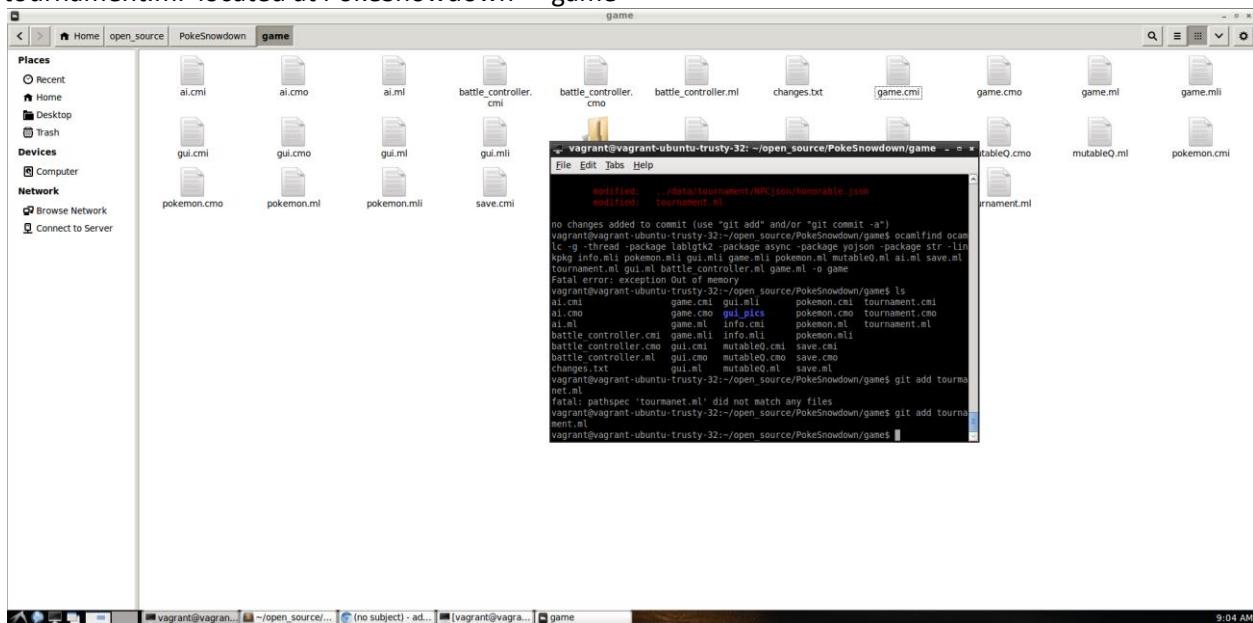
bob.gif located PokeSnowdown -> data->backgrounds->player\_versus



## factoryset.json located at PokeSnowdown->data



## tournament.ml located at PokeSnowdown -> game



Now you can git commit -m "Type your message here".

For this example I will just make the message "Adding bob npc to the game".

```
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/data$ git commit -m "Adding bob npc to the game"
[master 98d446b] Adding bob npc to the game
 4 files changed, 30 insertions(+), 29 deletions(-)
 rewrite data/factorysets.json (100%)
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/data$ git status
On branch master
Your branch is up-to-date with 'origin/master'.
```

Finally do a git push -u origin master and you are done!

```
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/data$ git push -u origin master
Counting objects: 26, done.
Compressing objects: 100% (19/19), done.
Writing objects: 100% (19/19), 1.18 KB | 0 bytes/s, done.
Total 19 (delta 9), reused 0 (delta 0)
To https://github.com/Phans/PokeSnowdown.git
 * [new branch] master -> master
Branch master set up to track remote branch master from origin.
vagrant@vagrant-ubuntu-trusty-32:~/open_source/PokeSnowdown/data$
```

Congratulations, you have contributed back to the main repository! Your name will be added to the list of contributors if your changes get accepted!