Game Name: "Pokemon" knock off

Game Explanation:

- Game Intro

       The game has an intro that plays when the game is started, it has animations and a quick explanation of the world the game is based in.

- Battle UI

The UI for the battles has the following features:

1. Dynamic HP Bar

HP: [▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊] 50/50

Full HP Bar

HP: [▊▊▊▊▊▊▊▊▊▊▊▊   ] 30/50

Missing HP

The game has a HP Bar for both "Pocket Mon" in the battle, the HP Bar updates after each turn based on how much damage each attack does, and whether the player or opponent had healed their "Pocket Mon".

2. Unique "Pocket Mon" Designs

```
 (\__/)        (\_._/)
(o  ⚡  o)     ( -w- ) 🌱
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  UU   UU        ^^  ^^          ><((( °>
```

```
 (   )            (  o.o )         (•_•)
(o_o )   ~🔥
 <)    )┘        <(    )>      <)      )┘
 /    \           U U           /    \
```

The game has 6 unique ASCII art designs, 5 is able to be used by the regular opponents, whilst one is only available to the final boss, having the highest stats.

3. Actions
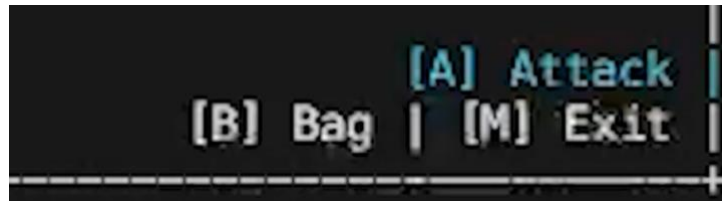
In the bottom right of the screen, the player can choose to Attack, open their Bag or Exit the game, by pressing the corresponding buttons (A for Attack, B for Bag, M to exit).

Each button press will play a sound effect!

3.1 Attacking

The player has a choice of 4 skills to use, each having their own damage scaling.

During each turn, the actions used by the player and opponent is announced in the middle of the screen

3.2 Bag

The player can choose to use a Potion or a Mega Potion to heal their "Pocket Mon", the Potion heals 20 points whilst a Mega Potions heals 50 points.

3.3 Exit

Pressing the M button exits the game, but apart from pressing that button. The game will exit after the player loses a battle.

4. Winning

```
           You won the battle!
Electripuff leveled up! Max HP: 55, Stamina: 32
```

When the player wins a battle, the player gains Money and the player's "Pocket Mon" levels up, having their Max HP increased.

5. The Shop

```
+--------------------------------------------------------------+
|                                                              |
|                     Welcome to the Shop!                     |
|                      Your money: $200                        |
|                                                              |
| [1] Potion - $50                                             |
| [2] Mega - $100                                              |
| [3] Exit Shop                                                |
|                                                              |
|                                                              |
|                                                              |
|                                                              |
+--------------------------------------------------------------+
```

Once the player wins a battle, they get taken to the shop in which they can buy more Potions and Mega Potions to use in the next battles.

The game will play until the final boss, in which the game will let you continuously fight the boss to level your "Pocket Mon" as much as you can.

Code Explanation:

- TYPE_Chart Constant

```rust
//Index 0: Electric, 1: Grass, 2: Fire, 3: Water, 5: Normal
const TYPE_CHART: [[f32; 5]; 5] = [
    //Electric
    [0.5, 0.5, 1.0, 2.0, 1.0],
    //Grass
    [1.0, 0.5, 0.5, 2.0, 1.0],
    //Fire
    [1.0, 2.0, 0.5, 0.5, 1.0],
    //Water
    [2.0, 0.5, 2.0, 0.5, 1.0],
    //Normal
    [1.0, 1.0, 1.0, 1.0, 1.0],
];
```

It works by taking the type index (number) of the attacking pokemon and checks the damage multiplication at the index of the opposing pokemon's type index for example if a Electric pokemon (0 index) hits a Grass pokemon (1 index) the multiplier is 0.5 (row 0 col 1)

- screen Function

The screen function draws the UI for the battle that has the stats of the pokemons, the ASCII art and the buttons.

- get_input Function

Gets the keyboard input from the player's terminal.

- empty_screen Function

This function is used to create a new empty screen to be edited.

- intro_print Function

It's used to print a line at a certain row on the screen like in the example above.

- dot _waiting Function

Used to make the dot dot dot graphic in the intro as shown in the intro_print example.

- battle_anim Function

This function is used to make curtain closing like animation, where it moves the cursor to the first row at the first column and change that to a white block, then moves down until it finishes the entire column of the screen. One the left side's first column is done it goes to the far right side to do the same thing, repeating until it reaches the middle of the screen like how a curtain would close.

- intro Function

This is used to show the intro with custom texts and cutscenes that explains the world behind the game
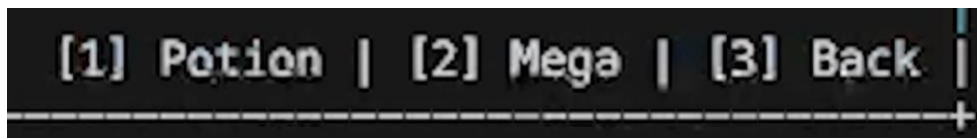
- opp_random Function

This function is used to randomize the enemy's pokemon based on the amount of battles that the player has fought

- attack Function

This is used to calculate the skill's damage for the attacking pokemon, based on the type of the pokemons attacking and receiving the attack.
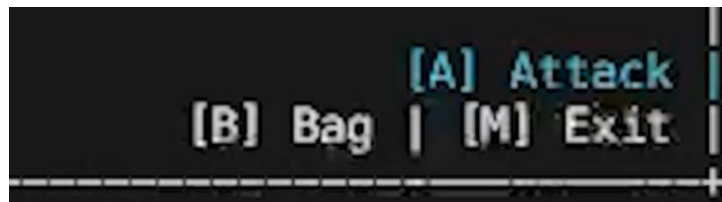
- bag Function

This function is to show the UI for the player's bag and the items in it, allowing them to choose what item to use on their pokemon during a battle.

- shop Function

It is used to show the shop screen for the player to buy items to their bag, if they have the money.

- action Function

This function is used to check what the player chooses to do during a battle like attack, open bag or leave the game.