COMPRO 1

Machine Project Documentation

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S17B

Functions Specifications Documentation

Function Name	Description	Input Parameter	Return Data
assignOriginalHP	This function assigns the original or full HP of a Pokémon by reading the inputted number of the chosen Pokémon.	*nChoice* –the Pokémon choice of the player /chosen Pokémon's number.	Returns the HP corresponding to the chosen Pokémon.
assignUniqueMove1BP	This function assigns the BP of a Pokémon's unique move 1.	*nChoice* – the Pokémon choice of the player /chosen Pokémon's number.	Returns the BP corresponding to the chosen Pokémon's unique move 1.
assignUniqueMove1PP	This function assigns the PP of a Pokémon's unique move 1.	*nChoice* – the Pokémon choice of the player /chosen Pokémon's number.	Returns the PP corresponding to the chosen Pokémon's unique move 1.
assignUniqueMove2BP	This function assigns the BP of a Pokémon's unique move 2.	*nChoice* – the Pokémon choice of the player /chosen Pokémon's number.	Returns the BP corresponding to the chosen Pokémon's unique move 2.
assignUniqueMove2PP	This function assigns the PP of a Pokémon's unique move 2.	*nChoice* – the Pokémon choice of the player /chosen Pokémon's number.	Returns the PP corresponding to the chosen Pokémon's unique move 2.
checkIfMoveIsValid	This function checks whether the move choice input is valid or not.	*nMoveChoice* –the move choice of the player. *nPPMove1Ctr* –the counter for move 1's PP.	Returns a value for the flag/variable *nValidChoiceA* in the main function.

		nPPMove2Ctr –the counter for move 2's PP. *nPPMove3Ctr* –the counter for move 3's PP. *nPPMove4Ctr* –the counter for move 4's PP. *nIsRowProtect* –the flag showing whether there would be a Protect move in a row or not.	
choosePokemon	This function will read the chosen Pokémon's number and output the matching Pokémon name.	*nChoice* –the Pokémon choice of the player /chosen Pokémon's number. *nTrainer* –the player who is choosing (player1 : 1; player 2 : 2)	N/A (Does not return any value; it is a void function.)
digA	This function determines the magnitude of damage done by the first Pokémon by using Dig. It reads the first and second Pokémons' numbers and determines the damage compatible to the pair. It also takes the first Pokémon's unique moves 1 and 2's BPs to calculate the damage.	*nPokemonA* –the Pokémon choice of player 1. *nPokemonB* –the Pokémon choice of player 2. *nBPA1* –the BP of the unique move 1 of player 1's Pokémon. *nBPA2* –the the BP of the unique move 2 of player 1's Pokémon.	Returns the damage done by player 1's Pokémon.

digB	This function determines the magnitude of damage done by the second Pokémon by using Dig. It reads the first and second Pokémons' numbers and determines the damage compatible to the pair. It also takes the second Pokémon's unique moves 1 and 2's BPs to calculate the damage.	*nPokemonA* –the Pokémon choice of player 1. *nPokemonB* –the Pokémon choice of player 2. *nBPB1* –the BP of the unique move 1 of player 2's Pokémon. *nBPB2* –the the BP of the unique move 2 of player 2's Pokémon.	Returns the damage done by player 2's Pokémon.
displayHPStat	This function displays the HP status of a Pokémon.	*nPokemon* –the Pokémon to be given a health bar. *nCurrentHP* –the current HP of the Pokémon to be given a health bar. *nHPdenominator* –the full/ original HP of the Pokémon to be given a health bar.	N/A (Does not return any value; it is a void function.)
earthquakeA	This function determines the magnitude of damage done by the first Pokémon by using Earthquake. It reads the first and second Pokémons' numbers and determines the damage	*nPokemonA* –the Pokémon choice of player 1. *nPokemonB* –the Pokémon choice of player 2. *nBPA2* –the the BP of the unique move 2 of player 1's Pokémon.	Returns the damage done by player 1's Pokémon.

	compatible to the pair. It also takes the first Pokémon's unique move 2's BP to calculate the damage.		
earthquakeB	This function determines the magnitude of damage done by the second Pokémon by using Earthquake. It reads the first and second Pokémons' numbers and determines the damage compatible to the pair. It also takes the second Pokémon's unique move 2's BP to calculate the damage.	*nPokemonA* –the Pokémon choice of player 1. *nPokemonB* –the Pokémon choice of player 2. *nBPB2* –the the BP of the unique move 2 of player 2's Pokémon.	Returns the damage done by player 2's Pokémon.
fireBlastA	This function determines the magnitude of damage done by the first pokemon by using Fire Blast. It reads the first and second Pokémons' numbers and determines the damage compatible to the pair. It also takes the first Pokémon's unique moves 1 and 2's BPs to	*nPokemonA* –the Pokémon choice of player 1. *nPokemonB* –the Pokémon choice of player 2. *nBPA1* –the BP of the unique move 1 of player 1's Pokémon. *nBPA2* –the the BP of the unique move 2 of player 1's Pokémon.	Returns the damage done by player 1's Pokémon.

	calculate the damage.		
fireBlastB	This function determines the magnitude of damage done by the second Pokémon by using Fire Blast. It reads the first and second Pokémons' numbers and determines the damage compatible to the pair. It also takes the second Pokémon's unique moves 1 and 2's BPs to calculate the damage.	*nPokemonA* –the Pokémon choice of player 1. *nPokemonB* –the Pokémon choice of player 2. *nBPB1* –the BP of the unique move 1 of player 2's Pokémon. *nBPB2* –the the BP of the unique move 2 of player 2's Pokémon.	Returns the damage done by player 2's Pokémon.
fissureA	This function determines the magnitude of damage done by the first Pokémon using Fissure. It reads the first and second Pokémons' numbers and determines the damage compatible to the pair. It also takes the first Pokémon's unique move 1's BP to calculate the damage.	*nPokemonA* –the Pokémon choice of player 1. *nPokemonB* –the Pokémon choice of player 2. *nBPA1* –the BP of the unique move 1 of player 1's Pokémon.	Returns the damage done by player 1's Pokémon.
fissureB	This function determines the magnitude of damage done by	*nPokemonA* –the Pokémon choice of player 1.	Returns the damage done by player 2's Pokémon.

	the first Pokémon using Fissure. It reads the first and second Pokémons' numbers and determines the damage compatible to the pair. It also takes the second Pokémon's unique move 1's BP to calculate the damage.	*nPokemonB* –the Pokémon choice of player 2. *nBPB1* –the BP of the unique move 1 of player 2's Pokémon.	
goDoTheDamageA	This function executes the valid move choice of the first Pokémon. It requires the first and second Pokémons' numbers, player 1's valid move choice, and the BPs of the first Pokémon's unique moves.	*nPokemonA* –the Pokémon choice of player 1. *nPokemonB* –the Pokémon choice of player 2. *nMoveChoiceA* –the move choice of player 1. *nBPA1* –the BP of the unique move 1 of player 1's Pokémon. *nBPA2* –the the BP of the unique move 2 of player 1's Pokémon.	Returns the damage of the selected move.
goDoTheDamageB	This function executes the valid move choice of the first Pokémon. It requires the first and second Pokémons' numbers, player 2's valid move choice, and the BPs	*nPokemonA* –the Pokémon choice of player 1. *nPokemonB* –the Pokémon choice of player 2.	Returns the damage of the selected move.

	of the second Pokémon's unique moves.	*nMoveChoiceB* –the move choice of player 1. *nBPB1* –the BP of the unique move 1 of player 1's Pokémon. *nBPB2* –the the BP of the unique move 2 of player 1's Pokémon.	
iceBeamA	This function determines the magnitude of damage done by the first Pokémon using Ice Beam. It reads the first and second Pokémons' numbers and determines the damage compatible to the pair. It also takes the first Pokémon's unique moves 1 and 2's BPs to calculate the damage.	*nPokemonA* –the Pokémon choice of player 1. *nPokemonB* –the Pokémon choice of player 2. *nBPA1* –the BP of the unique move 1 of player 1's Pokémon. *nBPA2* –the the BP of the unique move 2 of player 1's Pokémon.	Returns the damage done by player 1's Pokémon.
iceBeamB	This function determines the magnitude of damage done by the second Pokémon using Ice Beam. It reads the first and second Pokémons' numbers and determines the damage	*nPokemonA* –the Pokémon choice of player 1. *nPokemonB* –the Pokémon choice of player 2. *nBPB1* –the BP of the unique move 1 of player 2's Pokémon.	Returns the damage done by player 2's Pokémon.

	compatible to the pair. It also takes the second Pokémon's unique moves 1 and 2's BPs to calculate the damage.	*nBPB2* –the the BP of the unique move 2 of player 2's Pokémon.	
leafStormA	This function determines the magnitude of damage done by the first Pokémon by using Leaf Storm. It reads the first and second Pokémons' numbers and determines the damage compatible to the pair. It also takes the first Pokémon's unique move 2's BP to calculate the damage.	*nPokemonA* –the Pokémon choice of player 1. *nPokemonB* –the Pokémon choice of player 2. *nBPA2* –the the BP of the unique move 2 of player 1's Pokémon.	Returns the damage done by player 1's Pokémon.
leafStormB	This function determines the magnitude of damage done by the second Pokémon by using Leaf Storm. It reads the first and second Pokémons' numbers and determines the damage compatible to the pair. It also takes the second Pokémon's unique move 2's	*nPokemonA* –the Pokémon choice of player 1. *nPokemonB* –the Pokémon choice of player 2. *nBPB2* –the the BP of the unique move 2 of player 2's Pokémon.	Returns the damage done by player 2's Pokémon.

	BP to calculate the damage.		
movesMenuPlayer	This function displays the moves menu of the Pokémons.	*nPokemon* –the Pokémon choice of the player. *nMoveChoice* –the move choice of the player. *nBP1* –the BP of the unique move 1 of the player's Pokémon. *nBP2* –the BP of the unique move 2 of the player's Pokémon. *nPPMove1Ctr* –the Pokémon's counter for move 1's PP. *nPPAMove2Ctr* –the Pokémon's counter for move 2's PP. *nPPAMove3Ctr* –the Pokémon's counter for move 3's PP. *nPPAMove4Ctr* –the Pokémon's counter for move 4's PP.	N/A (Does not return any value; it is a void function.)
scaldA	This function determines the magnitude of damage done by	*nPokemonA* –the Pokémon choice of player 1.	Returns the damage done by player 1's Pokémon.

	the first Pokémon by using Scald. It reads the first and second Pokémons' numbers and determines the damage compatible to the pair. It also takes the first Pokémon's unique moves 1 and 2's BPs to calculate the damage.	*nPokemonB* –the Pokémon choice of player 2. *nBPA1* –the BP of the unique move 1 of player 1's Pokémon. *nBPA2* –the the BP of the unique move 2 of player 1's Pokémon.	
scaldB	This function determines the magnitude of damage done by the second Pokémon by using Scald. It reads the first and second Pokémons' numbers and determines the damage compatible to the pair. It also takes the second Pokémon's unique moves 1 and 2's BPs to calculate the damage.	*nPokemonA* –the Pokémon choice of player 1. *nPokemonB* –the Pokémon choice of player 2. *nBPB1* –the BP of the unique move 1 of player 2's Pokémon. *nBPB2* –the the BP of the unique move 2 of player 2's Pokémon.	Returns the damage done by player 2's Pokémon.
thunderboltA	This function determines the magnitude of damage done by the first Pokémon by using Thunderbolt.	*nPokemonA* –the Pokémon choice of player 1. *nPokemonB* –the Pokémon choice of player 2.	Returns the damage done by player 1's Pokémon.

	It reads the first and second Pokémons' numbers and determines the damage compatible to the pair. It also takes the first Pokémon's unique move 1's BP to calculate the damage.	*nBPA1* –the BP of the unique move 1 of player 1's Pokémon.	
thunderboltB	This function determines the magnitude of damage done by the second Pokémon by using Thunderbolt. It reads the first and second Pokémons' numbers and determines the damage compatible to the pair. It also takes the second Pokémon's unique move 1's BP to calculate the damage.	*nPokemonA* –the Pokémon choice of player 1. *nPokemonB* –the Pokémon choice of player 2. *nBPB1* –the BP of the unique move 1 of player 2's Pokémon.	Returns the damage done by player 2's Pokémon.
waterGunA	This function determines the magnitude of damage done by the first Pokémon by using Water Gun. It reads the first and second Pokémons' numbers and determines the	*nPokemonA* –the Pokémon choice of player 1. *nPokemonB* –the Pokémon choice of player 2. *nBPA1* –the BP of the unique move 1 of player 1's Pokémon.	Returns the damage done by player 1's Pokémon.

	damage compatible to the pair. It also takes the first Pokémon's unique move 1's BP to calculate the damage.		
waterGunB	This function determines the magnitude of damage done by the second Pokémon by using Water Gun. It reads the first and second Pokémons' numbers and determines the damage compatible to the pair. It also takes the second Pokémon's unique move 1's BP to calculate the damage.	*nPokemonA* –the Pokémon choice of player 1. *nPokemonB* –the Pokémon choice of player 2. *nBPB1* –the BP of the unique move 1 of player 2's Pokémon.	Returns the damage done by player 2's Pokémon.

Test Script Documentation

I. Scenario 1 – Wrong Choice Input

A. Pokemon Selection

- Input I
  - Player 1's choice/ input : 99
- Output I
  - "PLAYER 1, PLEASE SELECT ONLY AMONG THE CHOICES (1-7 ONLY)."
- Input II
  - Player 2's choice/ input : 34
- Output II
  - "PLAYER 2, PLEASE SELECT ONLY AMONG THE CHOICES (1-7 ONLY)."

B. Move Selection

- Input I
  - Player 1's Move: 475
- Output I
  - "Please select an allowable input (1-4 Only)."
- Input II
  - Player 2's Move: -55
- Output II
  - "Please select an allowable input (1-4 Only)."

II. Scenario 2 – Hit Points Assignment and Calculation

A. HP Assignment

- Inputs:
  - Player 1's pokemon : Entei
  - Player 2's pokemon : Torterra
- Outputs:
  - Entei's original/ full HP: 150/150
  - Torterra's original/ full HP: 220/220

B. HP Calculation

- Input I
  - Entei's first move: Fire Blast
- Output I
  - Torterra's current health: 175/ 220
- Input II

    - Torterra's first move: Leaf Storm
- Output II
    - Entei's current health: 120/150

III. Scenario 3 – Using Protect in a Row

- Assume that both player 1 and player 2 chose Protect in their last turns.
- Choice 3 is to use/ select Protect.
- Input I:
    - Player 1's choice/ input : 3
- Output I:
    - "You selected protect last turn;
      you cannot Protect this turn."
- Input II:
    - Player 2's choice/ input : 3
- Output II:
    - "You selected protect last turn;
      you cannot Protect this turn."

IIII. Scenario 4 – Selecting an Out-of-PP Move

- Assume that player 1 exhausted his PPs for move 1.
- Assume that player 2 exhausted his PPs for move 4.
- Input I:
    - Player 1's choice/ input : 1
- Output I:
    - "That move has 0 PP."
- Input II:
    - Player 2's choice/ input : 4
- Output II:
    - "That move has 0 PP."