This ReadMe will cover the following:

* Hierarchical Organization Road Map
* Python Code
  + Method 1: Example 1
  + Method 2: Example 2
  + Function Lists
* Future Improvements

**Hierarchical Organization Road Map**

**Python Code**

Data: Original 150 Pokémon

This data created by randomly sorting the Pokémon’s id and assigning titles.

**Method 1: Example 1**

This method manually cleans the data file in python and inputs the new data frame into a function to create an organization chart.

**Functions Used:**

employeeBoxLimit()

createEmployeeList()

create\_graph()

**Method 2: Example 2**

This method manually cleans the data file in excel and inputs the new data frame into a function to create an organization chart.

**Functions Used:**

create\_graph()

**Cleaning in Excel:** The techniques used was **=concatenate(transpose(range)&”\l”)**, depending on your excel version, you may need to transform “ **transpose(range)&”\l”** “ by highlighting and clicking F9.

**Function Lists**

**employeeBoxLimit()**

This function returns a list with each element only holding 25 employees. If the list has 2 elements with names then the manager/supervisor will have 2 employee boxes associated with him/her

Input: employee/staff list

Output: a list with 3 elements(list), each element only holds 25 names

**createEmployeeList()**

This function returns a list of employees

Input: a list with 3 elements of list type, a list are employees associated with 1 supervisor

Output: a list with 3 elements with type str, list of employees converted to a string with a separator

**create\_graph()**

This function creates an hierarchal organization chart.

Input:

df = data frame, that is organized in a particular way, reference df\_1 or df\_2

title = title of the org chart, str type

executive\_ID = the ID of the top person/boss/executive, int type

staff\_ID = the ID of the supporting staff of the executive, these people are not managers, int type

manager\_ID\_start = there are many managers and they are consecutive located after one another in the data frame, the ID of the first manager ID, int type

manager\_ID\_end = the ID of the last manager ID, int type

chart\_name = the chart image file name

Output: a png file of an organization chart

Note: You can change cell colors, refer to http://graphviz.org/doc/info/colors.html

**Future Improvements**

Given the time constraint, the following could be implemented in the near future:

* Method 1: Example 1, create a function to create new records for the new data frame. Currently, the new data frame records are manually created (arranged).
* Add “rankdir,” to control the order of managers/supervisors box locations
* If desired, color edges(lines connecting boxes).