An Executive Summary report on Module3

Subject:

Introduction to Data Analytics

ALY 6000 (Module3)

Guided by:

Prof. Mohammad Shafiqul Islam

Submitted By:

Name of Student	Drashti Patel
NUID	002929924
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1. INTRODUCTION

This report includes the table of inchBio which contains 8 different species of fish and their specifications of the fish.

2. ARRENGING THE DATASET

- Firstly, created the counts object with reference the inchBio data.

```
counts <- table(Bio$species) counts

      Black Crappie           Bluegill Bluntnose Minnow        Iowa Darter
                 36                220               103                 32
Largemouth Bass       Pumpkinseed    Tadpole Madtom       Yellow Perch
                228                 13                 6                38
```

- The data structure of the inchBio data is as follows:

```
'data.frame': 676 obs. of  7 variables:
$ netID  : int  12 12 12 12 12 12 12 13 13 13 ...
$ fishID : int  16 23 30 44 50 65 66 68 69 70 ...
$ species: chr  "Bluegill" "Bluegill" "Bluegill" "Bluegill" ...
$ tl     : int  61 66 70 38 42 54 27 36 59 39 ...
$ w      : num  2.9 4.5 5.2 0.5 1 2.1 NA 0.5 2 0.5 ...
$ tag    : chr  "" "" "" "" ...
$ scale  : logi  FALSE FALSE FALSE FALSE FALSE FALSE…
```

- Unique function is used to know the levels of a particular data column. There are 8 types of different species in this dataset [1].

```
"Bluegill"  "Bluntnose Minnow"  "Iowa Darter"
"Largemouth Bass"  "Pumpkinseed"  "Tadpole Madtom"
```

"Yellow Perch" "Black Crappie"

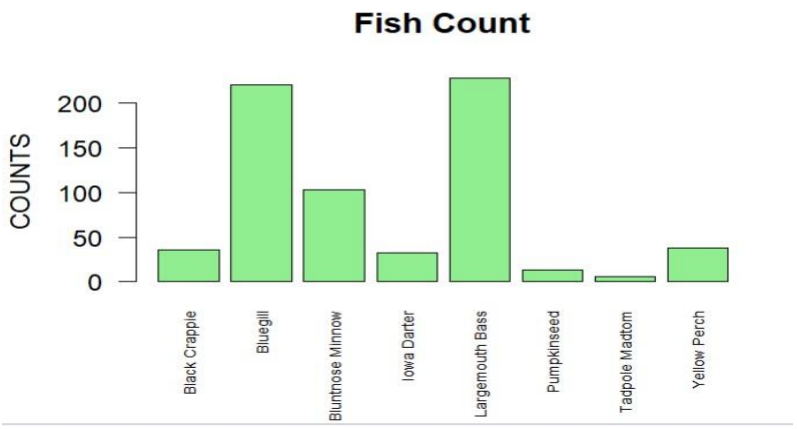
- a table with table name w is created by me, which contains all the species names and check the class by class() function[2].

	Var1	Freq
1	Black Crappie	36
2	Bluegill	220
3	Bluntnose Minnow	103
4	Iowa Darter	32
5	Largemouth Bass	228
6	Pumpkinseed	13
7	Tadpole Madtom	6
8	Yellow Perch	38

3. PLOT INFORMATIONS

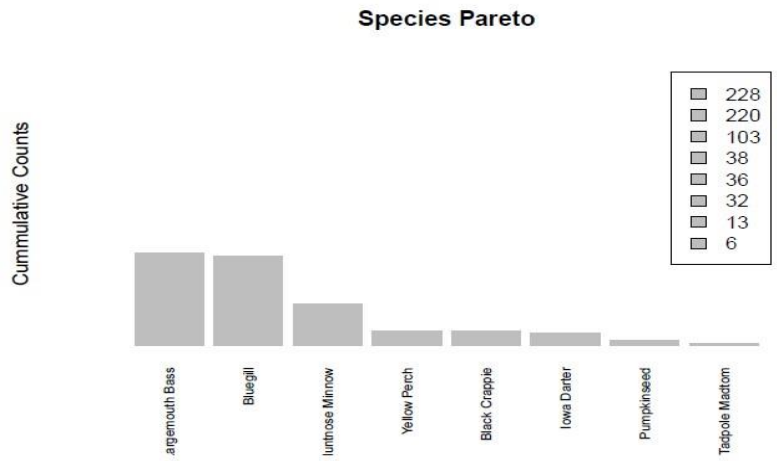
PLOT – 1

The bar plot illustrates that which species of fish have largest amount.[3].



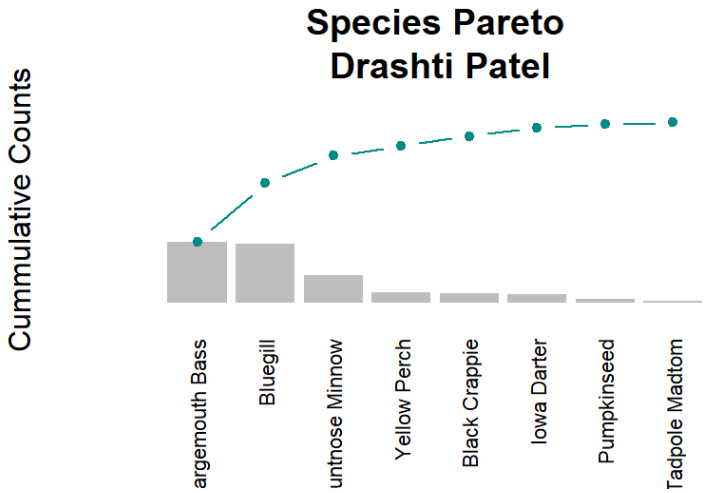
PLOT – 2

Species Pareto Plot represents which species are greater in cumulative counts.



PLOT – 3

This graph represents various functions to create bars and line.



4. SUMMARY

To conclude that, I learned how to create different types of visualization. Like bar graph and how to display the data plots by using various functions.

5. REFERENCE

1. Eric Cai (2018). Use unique () instead of levels () to find the possible values of a character variable in R. r-bloggers. Retrieved January 31st, 2022, from, https://www.r-bloggers.com/2018/03/use-unique-instead-oflevels-to-find-the-possible-values-of-a-character-variable-in-r/

2. Eric Cai (2015) How to Get the Frequency Table of a Categorical variable as a data frame in R. retrieved February 1st, 2022, from, https://chemicalstatistician.wordpress.com/2015/02/03/how-to-get-thefrequency-table-of-a-categorical-variable-as-a-data-frame-in-r/commentpage-1/

3. IRTFM (2014). How to make font size variables in x axis smaller. StackOverflow. Retrieved February 1st, 2022, from, https://stackoverflow.com/questions/27367231/how-to-make-font-sizevariables-in-x-axis-smaller

4. Data Mentor https://discuss.analyticsvidhya.com/t/how-to-add-a-columnto-a-data-frame-in-r/3278

6. APPENDIX

My Github link is given below to refer to my R script.

- Drashti Patel (2022). My GitHub link. GitHub. https://github.com/drashtipatel19/ALY6000/blob/main/Drashti_M3_Project3.R