



Lab Assignment 6 – Python

1. Create a 4X2 integer array and Prints its attributes
2. Create a 5X2 integer array from a range between 100 to 200 such that the difference between each element is 10
3. Create a numPy array. Return array of items by taking the third column from all rows
4. Create a numpy array with 3 elements. Do all the arithmetic operations with scalar element.
5. Create two 2-D numpy array. Do array concatenation, stack, vstack and hstack on that.
6. Create an Nd numpy array. Using array filter retrieve all the even elements in that array.
7. Write a python program to read a dataset from titanic file and do the following:
 - Read values to dataframe and print the first 6 rows.
 - Print the concise summary of the dataframe.
 - calculate the mean of each numeric column in dataframe.

- find the count of null values in dataframe.
- Take the average people survived.
- Take the average male and female survived.
- Group the entire dataframe based on Gender and Pclass.

8. Write a python program to read a dataset from weather file and do the following:

- Read values to dataframe and print the first 6 rows.
- Print the concise summary of the dataframe.
- calculate the mean of each numeric column in dataframe.
- find the count of null values in dataframe.
- Take the maximum temperature from the weather data.
- Retrieve the average windspeed from the weather data.
- Make a new dataframe which contains minmum values of all columns based on event.
- Make a new dataframe which contains minmum temperature based on event.

9. Write a python program to read a dataset from diamonds file and do the following:

- Read values to dataframe and print the first 6 rows.
- Print the concise summary of the dataframe.
- calculate the mean of each numeric column in dataframe.
- find the count of null values in dataframe.

- Calculate min, max price for each cut of diamonds.
- Take the count of all duplicate rows in the dataframe.