NALAIYA THIRAN
WEEK 2 REPORT

Phase 2 Description: Ideation Phase (Literature Survey, Empathize, Defining Problem Statement, Ideation)

2.1 Literature survey on the selected project & Information Gathering

Collected the relevant information on the project use-case, referred the existing solutions, technical papers, research publications, etc.

Paper 1 – **Water Quality Prediction**

Publisher: International Research Journal Of Engineering and Technology (IRJET)

Reference - https://www.irjet.net/archives/V7/i5/IRJET-V7I51435.pdf

Paper 2 **– Efficient Water Quality Prediction Using Supervised Machine Learning**

Publisher: Umair Ahmed – MDPI

Reference -https://www.mdpi.com/2073-4441/11/11/2210/pdf

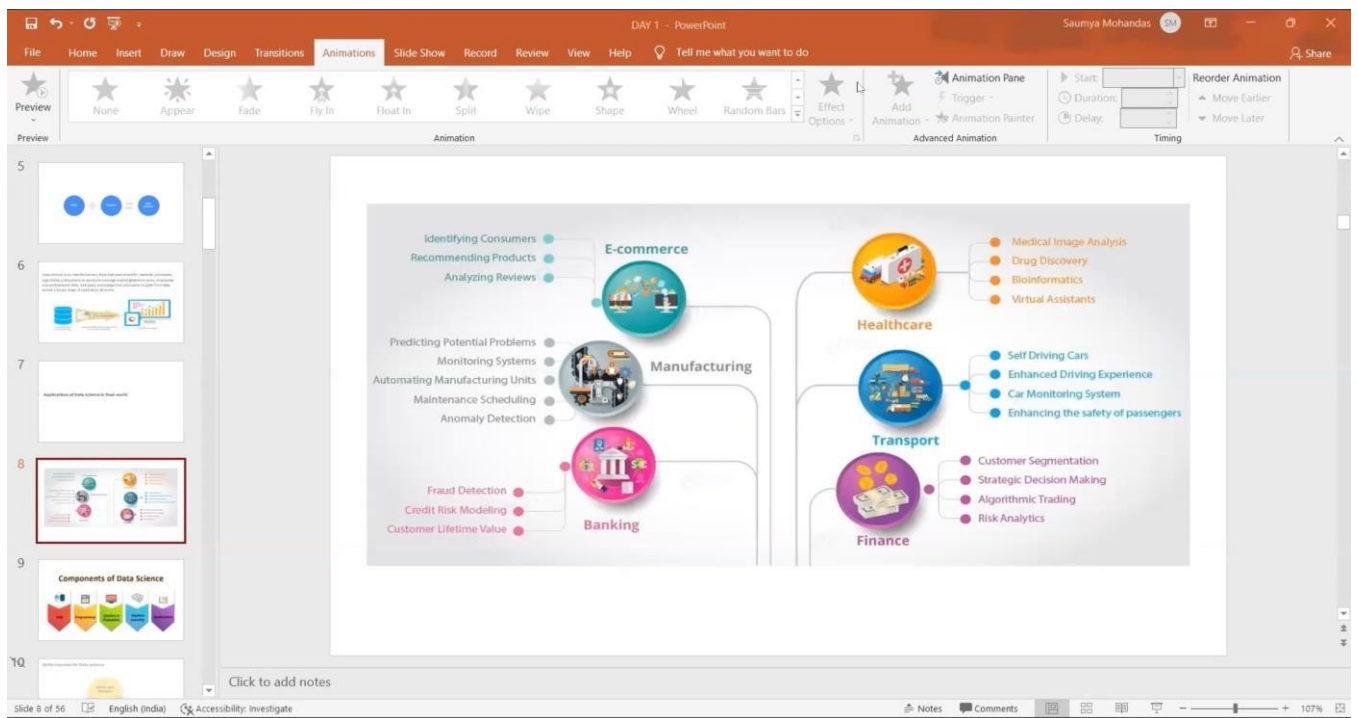Paper 3 – **WATER QUALITY PREDICTION BASED ON MACHINE LEARNING TECHNIQUES**
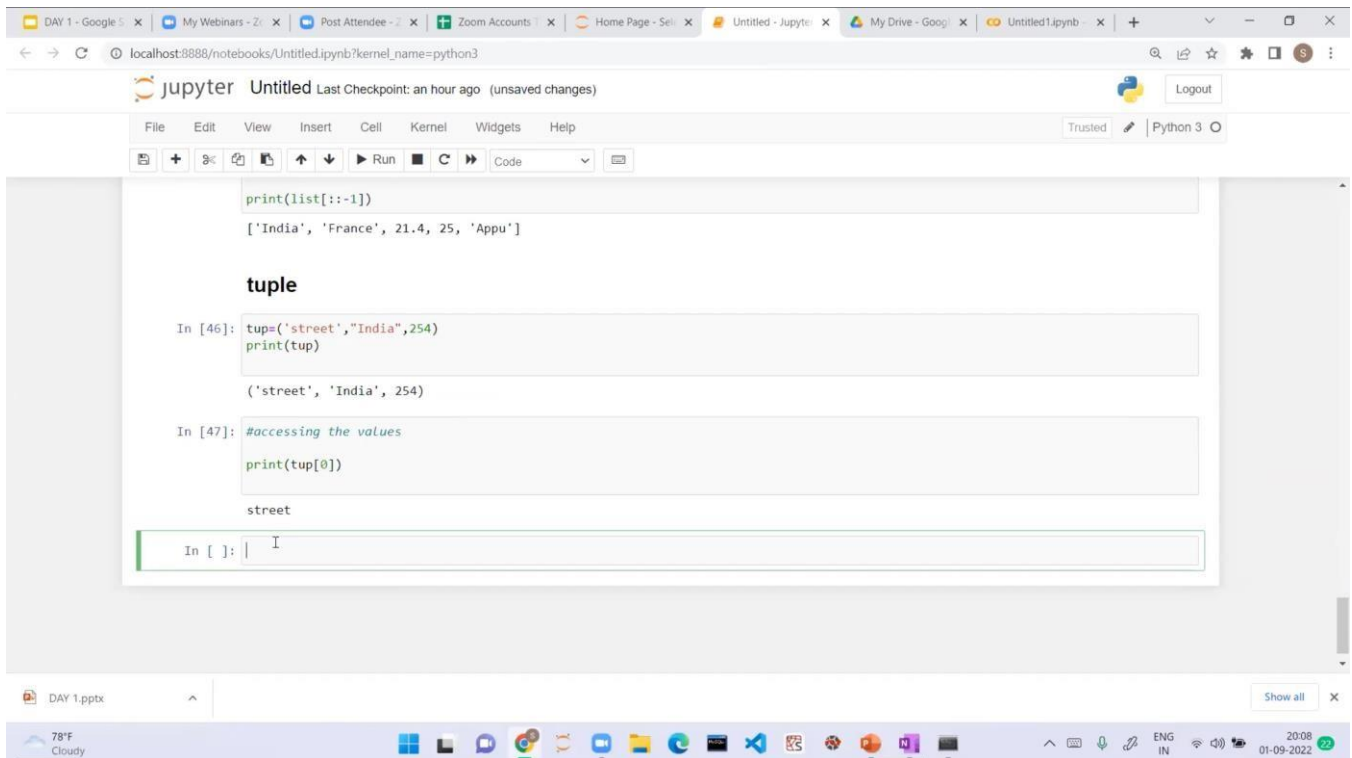
Publisher: Zhao Fu – UNLV Graduate College

Reference - https://digitalscholarship.unlv.edu/cgi/viewcontent.cgi?article=4998 &context=thesesdissertations

2.2 Attended the technology training as per the training calendar

ADS – B3 - 3M5E (Evening Session) - Day 1 (02.09.2022)

← → C ① localhost:8888/notebooks/Untitled.ipynb?kernel_name=python3

⊂ Jupyter Untitled Last Checkpoint: an hour ago (unsaved changes)   Logout

File   Edit   View   Insert   Cell   Kernel   Widgets   Help   Trusted | Python 3 O

```
print(list[::-1])

['India', 'France', 21.4, 25, 'Appu']
```

tuple

```
In [46]:  tup=('street',"India",254)
          print(tup)

          ('street', 'India', 254)

In [47]:  #accessing the values

          print(tup[0])

          street

In [ ]:
```

Ads-B3-3M5E (Morning Session)-Day-2 (07.09.2022)

Important Methods Pandas Packages

Data Importing

```
pd.read_csv()
pd.read_table()
pd.read_excel()
pd.read_sql()
pd.read_json()
pd.read_html()
pd.DataFrame()
pd.concat()
pd.series()
pd.date_range()
```

Data Cleaning

```
pd.fillna()
pd.dropna()
pd.sort_values()
pd.apply()
pd.groupby()
pd.append()
pd.join()
pd.rename()
pd.to_csv()
pd.set_index()
```

Data Statistic

```
pd.head()
pd.tail()
pd.describe()
pd.info()
pd.mean()
pd.median()
pd.count()
pd.std()
pd.max()
pd.min()
```

24	Pontiac Firebird	19.2	8	400.0	175	3.08	3.845	17.05	0	0	3	2
25	Fiat X1-9	27.3	4	79.0	66	4.08	1.935	18.90	1	1	4	1
26	Porsche 914-2	26.0	4	120.3	91	4.43	2.140	16.70	0	1	5	2
27	Lotus Europa	30.4	4	95.1	113	3.77	1.513	16.90	1	1	5	2
28	Ford Pantera L	15.8	8	351.0	264	4.22	3.170	14.50	0	1	5	4
29	Ferrari Dino	19.7	6	145.0	175	3.62	2.770	15.50	0	1	5	6
30	Maserati Bora	15.0	8	301.0	335	3.54	3.570	14.60	0	1	5	8
31	Volvo 142E	21.4	4	121.0	109	4.11	2.780	18.60	1	1	4	2

```python
# Datsun 710-Fiat 128 hp-am
```