

Professional Readiness for Innovation, Employability and Entrepreneurship
Project Report for week 2

Project Title: Fertilizers Recommendation System for Disease Prediction

Mentor Name: Malathy EM

Team ID: PNT2022TMID53297

Team Size: 4

Team Leader: Santhosh M

Team member-1: Iswarya M

Team member-2: Sabarivasan E

Team member-3: Navaneethakrishnan S

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 –Soil Fertilizer Recommendation System using Fuzzy Logic

Reference - **Doi:10.1109/TENCON50793.2020.9293780.**

Paper 2 – Farmer's Assistant: A Machine Learning Based Application for Agricultural Solutions

Reference -[arXiv:2204.11340https://doi.org/10.48550/arXiv.2204.11340](https://arxiv.org/abs/2204.11340)

Paper 3 –CNN based Leaf Disease Identification and Remedy Recommendation System

Reference -**doi: 10.1109/ICECA.2019.8821872.**

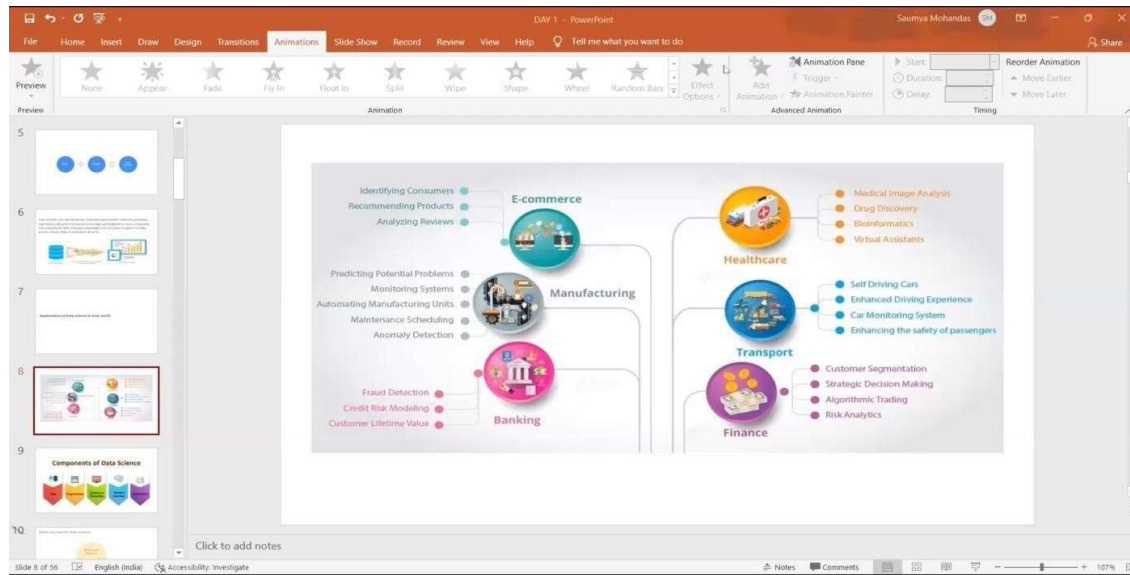
2.2 Attended the technology training as per the training calendar

B5-5M1E

Artificial Intelligence Day 1

02-09-2022

9:00am - 12:00pm



B5-5M1E

Artificial Intelligence Day 2

05-09-2022

6:00pm – 9:00pm

The screenshot shows a Jupyter Notebook interface with the following code and output:

```
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 [ ]: |
```

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()
```

The screenshot displays a Jupyter Notebook environment. The browser address bar shows the URL: `localhost:8888/notebooks/B2%20BATCH%20NALAIYA%20THIRAN/Pandas.ipynb`. The notebook title is "Pandas Last Checkpoint: 39 minutes ago (unsaved changes)". The interface includes a menu bar (File, Edit, View, Insert, Cell, Kernel, Widgets, Help) and a toolbar with icons for file operations, running cells, and code execution. The main content area shows a Pandas DataFrame with 11 rows of car data. The first row is highlighted in light blue. Below the DataFrame, there are several empty input cells for code execution.

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

Below the DataFrame, there are several empty input cells for code execution:

```
In [ ]: # Datsun 710-Fiat 128 hp-am  
In [ ]:  
In [ ]:  
In [ ]:  
In [ ]:
```