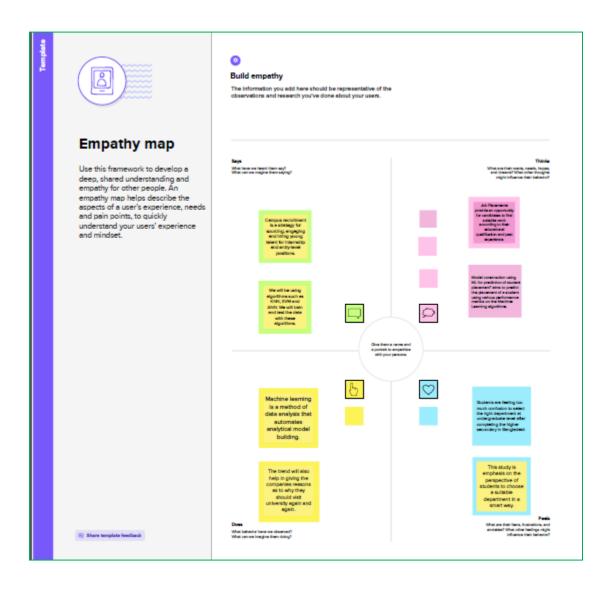# PROJECT REPORT

1. Introduction:

1.1 Overview

Campus recruitment is a strategy for sourcing, engaging and hiring young talent for internship and entry-level positions. College recruiting is typically a tactic for medium- to large-sized companies with high-volume recruiting needs, but can range from small efforts (like working with university career centers to source potential candidates) to large-scale operations (like visiting a wide array of colleges and attending recruiting events throughout the spring and fall semester).Campus recruitment often involves working with university career services centers and attending career fairs to meet in-person with college students and recent graduates. Our solution revolves around the placement season of a Business School in India. Where it has various factors on candidates getting hired such as work experience, exam percentage etc., Finally it contains the status of recruitment and remuneration details.
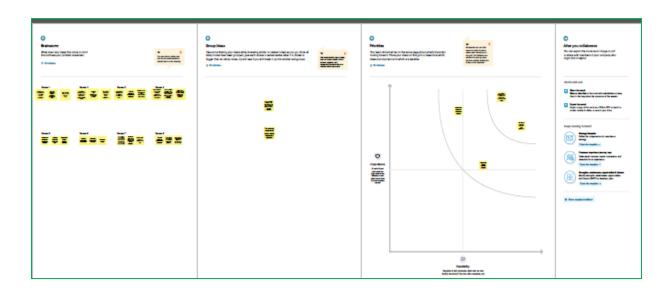
1.2 Purpose

In this study, the target is to analyze student's placement data of last year and use it to determine the probability of campus placement of the present students. For this we have experimented with four different machine learning algorithms i.e. **Logistic Regression, Decision Tree , K Nearest Neighbours and Random Forest.**

2. Problem Definition & Design thinking

2.1 Empathy Map

2.2 Ideation &Brainstorming Map

3. Result

3.1 Date Model

22

0

2

1

8

1

Activate Windows
Go to Settings to acti

Submit

PLACEMENT PREDICTION

The Prediction is : 1

0 represents Not-Placed

1 represents Placed

3.2 Activity & Screenshot

Activity 1.1: Importing the libraries

```python
import numpy as np
import pandas as pd
import os
import seaborn as sns
import matplotlib.pyplot as plt
from sklearn import svm
from sklearn.metrics import accuracy_score
from sklearn.neighbors import KNeighborsClassifier
from sklearn import metrics
from sklearn.model_selection import cross_val_score
from sklearn import preprocessing
from sklearn.model_selection import train_test_split
from sklearn.preprocessing import StandardScaler
import joblib
from sklearn.metrics import accuracy_score
import pickle
```

Activity 1.2: Read the Dataset

Our dataset format might be in . csv, excel files, .txt, .json, etc. We can read the dataset with the help of pandas. In pandas we have a function called read_csv() to read the dataset. As a parameter we have to give the directory of the csv file.

```python
In [55]: df = pd.read_csv('collegeplace.csv')

In [56]: df.head()
```

Out[56]:

	Age	Gender	Stream	Internships	CGPA	Hostel	HistoryOfBacklogs	PlacedOrNot
0	22	Male	Electronics And Communication	1	8	1	1	1
1	21	Female	Computer Science	0	7	1	1	1
2	22	Female	Information Technology	1	6	0	0	1
3	21	Male	Information Technology	0	8	0	1	1
4	22	Male	Mechanical	0	8	1	0	1

Activity 2: Data Preparation

As we have understood how the data is, let's pre-process the collected data. The download data set is not suitable for training the machine learning model as it might have so much randomness so we need to clean the dataset properly in order to fetch good results. This activity includes the following steps.

- Handling Missing data
- Handling Categorical data
- Handling missing data

Activity 2.1: Handling missing values :

Let's find the shape of our dataset first. To find the shape of our data, the df.shape method is used. To find the data type, df.info() function is used.

```
In [57]: df.info()

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 2966 entries, 0 to 2965
Data columns (total 8 columns):
 #   Column           Non-Null Count  Dtype
---  ------           --------------  -----
 0   Age              2966 non-null   int64
 1   Gender           2966 non-null   object
 2   Stream           2966 non-null   object
 3   Internships      2966 non-null   int64
 4   CGPA             2966 non-null   int64
 5   Hostel           2966 non-null   int64
 6   HistoryOfBacklogs 2966 non-null  int64
 7   PlacedOrNot      2966 non-null   int64
dtypes: int64(6), object(2)
memory usage: 185.5+ KB
```

```
In [58]: df.isnull().sum()

Out[58]: Age                 0
         Gender              0
         Stream              0
         Internships         0
         CGPA                0
         Hostel              0
         HistoryOfBacklogs   0
         PlacedOrNot         0
         dtype: int64
```

4. <u>Trailhead Profile</u> :

Team lead : Santha sharmila J
Member 1 : Gomathi S
Member 2 : Divya Bharathi S
Member 3 : Sathya S

5. <u>Advantages</u>:

1. Students are offered prestigious job roles in a reputed organization before completing the degree.
2. Helps the recruiters to find the right fit for the organization without wasting time.
3. Formation of a cordial relationship between the company and the college.
4. The chances of selection in campus placements are high in comparison to off-campus and pool placements.

<u>Disadvantages</u>:

1. Candidates need to work hard to crack campus placement interviews and as freshers, they require a lot of training for work.

2. Often, students at a college don't get their dream companies and they have to settle for the companies that recruit them at the time of campus placement at relatively lesser pay packages.

6. <u>Appendix:</u>

```python
from flask import Flask, render_template , request

app=Flask(__name__)

import pickle

import joblib

model=pickle.load(open("placement123.pkl",'rb'))

ct=joblib.load('placement')

@app.route('/')

def hello():

return render_template("index.html")

@app.route('/guest', methods = ["Post"])

def Guest():
```

```python
sen1=request.form["sen1"]

sen2=request.form["sen2"]

sen3=request.form["sen3"]

sen4=request.form["sen4"]

sen5=request.form["sen5"]

sen6=request.form["sen6"]

@app.route('/y_predict', methods = ["POST"])

def y_predict():

    x_test = [[(yo) for yo in request.form.values()]]

    prediction =model.predict(x_test)

    prediction = prediction[0]

    return render_template("secondpage.html",y=prediction)

app.run(debug=True)
```

7. <u>Conclusion:</u>

Besides being all goody-goody, **campus placements** have their **disadvantages** too. The remuneration offered to students is meagre, entry-level jobs aren't exactly as promised, joining can be delayed infinitely and a limited number of companies arrive for placement drive, so that restricts opportunities to a bare minimum for only a select few students.