IDENTIFYING PATTERNS AND TRENDS IN CAMPUS PLACEMENT

Project Documentation

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INTRODUCTION

1.1 About the project

Identifying patterns and trends in campus placement is a project that involves analyzing data related to the placement of students from a particular educational institution or a group of institutions. The goal of this project is to identify patterns and trends in the data that can provide insights into the job market and help students and educational institutions make informed decisions about their career paths.

To carry out this project, the first step is to collect data related to campus placement, such as the number of students placed, the average salary offered, the companies that participated in the placement process, and the job roles offered. The collected data needs to be cleaned, organized, and prepared for analysis.

Once the data is ready, various data analysis techniques can be used to identify patterns and trends. These techniques can include statistical analysis, data visualization, and machine learning algorithms. For example, statistical analysis can be used to calculate the mean, median, and mode of salaries offered to students in different job roles. Data visualization can be used to create charts and graphs that illustrate trends in the data, such as the number of students placed in different job roles over time. Machine learning algorithms can be used to identify correlations between different variables in the data and make predictions about future trends.

Interpreting the results of the data analysis is a critical step in this project. The patterns and trends identified from the data analysis need to be interpreted to

draw meaningful insights and conclusions. For example, the analysis might reveal that certain job roles are in high demand, or that certain industries are offering the highest salaries.

Finally, the results of the project need to be communicated effectively. This can be done through reports, presentations, or visualizations that clearly communicate the insights and conclusions drawn from the data analysis

1.2 Purpose

The purpose of identifying patterns and trends in campus placement is to gain insights into the job market and help students and educational institutions make informed decisions about their career paths. By analyzing data related to the placement of students, we can identify which companies are hiring the most students, which job roles are in high demand, which educational programs are producing the most employable graduates, and which industries are offering the highest salaries.

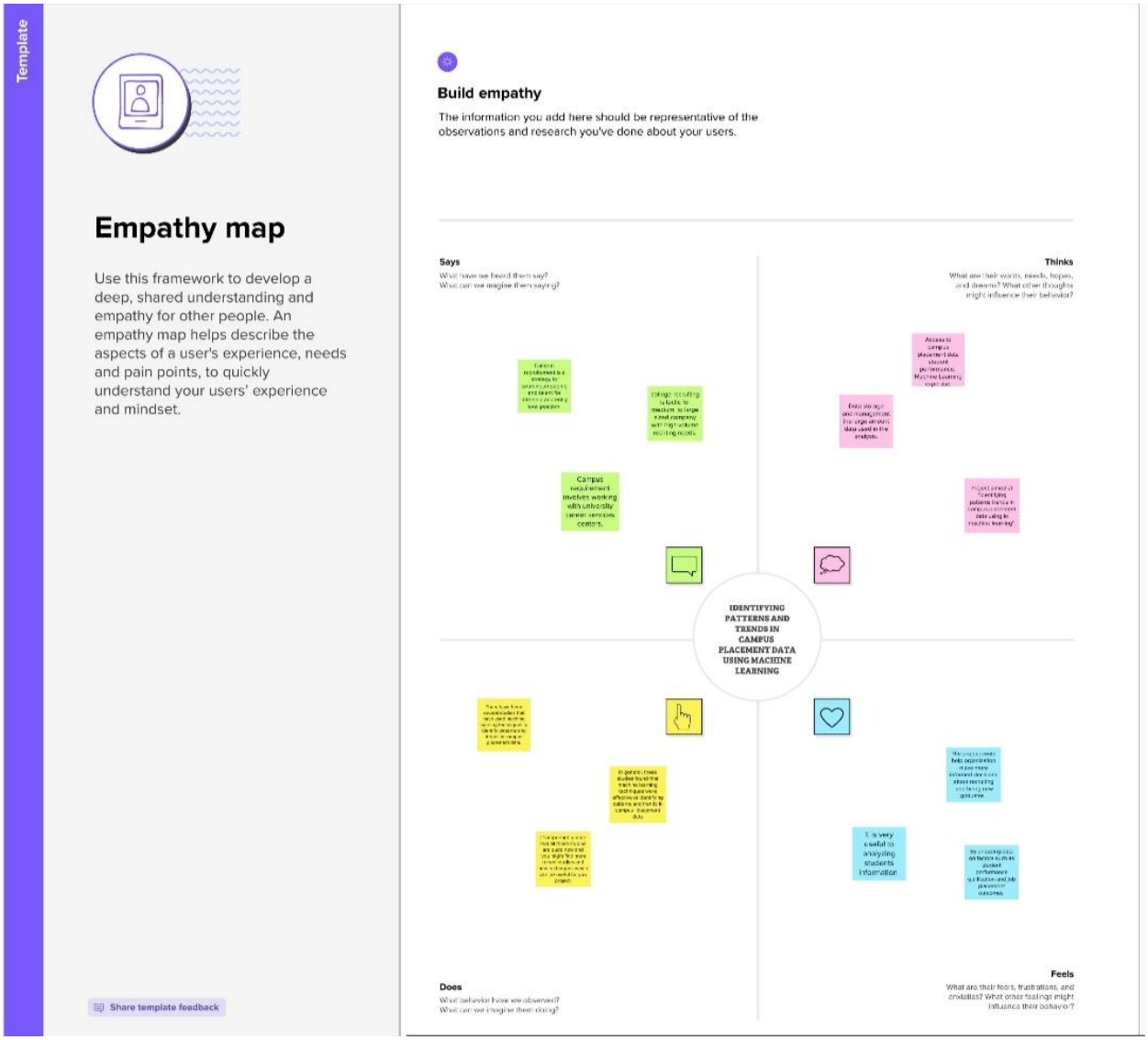
This information is valuable to students as it can help them make informed decisions about their career paths and choose the educational programs that are most likely to lead to employment in their chosen field. It is also valuable to educational institutions as it can help them identify areas where they can improve their educational programs to better prepare their students for the job market. Additionally, it is valuable to employers as it can help them make better hiring decisions based on the market demand and salary trends.

In summary, the purpose of identifying patterns and trends in campus placement is to provide valuable insights into the job market that can inform decision-making and help individuals and organizations succeed in the increasingly competitive and dynamic job market.

PROBLEM DEFINITION & DESIGN THINKING

2.1 Empathy map

An empathy map is a helpful tool that can be used in campus placement to gain insights into the needs, motivations, and behaviors of the different stakeholders involved in the process, such as students, employers, and educational institutions. By understanding the perspectives of these stakeholders, we can identify opportunities for improving the campus placement process and better meeting the needs of everyone involve



2.2 Ideation& Brainstorming Map

An ideation and brainstorming map is a visual tool used to generate and organize ideas around a central theme or problem. It is a way to capture and organize creative ideas and concepts from a group of people during a brainstorming session. Here are the key steps to creating an ideation and brainstorming map

Template

Brainstorm & idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

10 minutes to prepare
1 hour to collaborate
2-8 people recommended

Share template feedback

Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

10 minutes

Team gathering
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

Set the goal
Think about the problem you'll be focusing on solving in the brainstorming session.

Learn how to use the facilitation tools
Use the Facilitation Superpowers to run a happy and productive session.

Open article →

1 Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

5 minutes

How might we [your problem statement]?

Key rules of brainstorming

To run an smooth and productive session

- Stay in topic.
- Encourage wild ideas.
- Defer judgment.
- Listen to others.
- Go for volume.
- If possible, be visual.

2 Brainstorm

Write down any ideas that come to mind that address your problem statement.

10 minutes

TIP
You can select a sticky note and hit the pencil [switch to sketch] icon to start drawing!

ARUN KUMAR

Data used for training
used for pre-processing
Advance techniques
Outliers
Null grop in that dataset

ABISHEK

Apllied along with features
Suitable pre-processing
ecision tree
The placement prediction is done

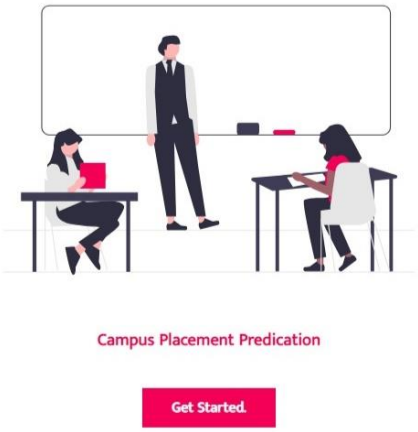
Anusiya

Every year admission of institute
Motivated in placement
Aim of every academic
Even the resultion

Dharshni

Depends upon placement
Possible to free student
Any system that will predict
Placement of a students

Result



3.1 Input & Result for chance

Please Enter Your Details

Arun | 19

Gender

(●) Male ( ) Female

Stream

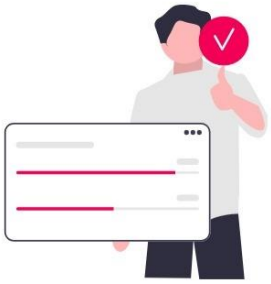
(●) Computer Science
( ) Information Technology
( ) Electronics And Communication
( ) Mechanical ( ) Electrical ( ) Civil

0 | 5

History of Backlogs

(●) Yes ( ) No

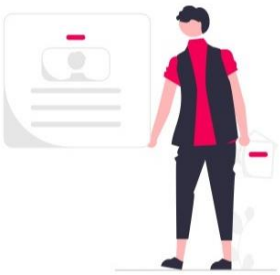
Submit



You Got Selected.

Return Home >

3.2 Input & result for no chance



Please Enter Your Details

Dinesh | 20

Gender

Male Female

Stream

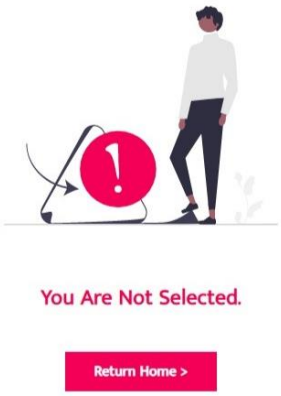
Computer Science
Information Technology
Electronics And Communication
Mechanical Electrical Civil

5 | 9

History of Backlogs

Yes No

Submit



4. Advantages

Improving the placement process: By identifying the factors that affect the placement process, institutions can take steps to improve the process. For example, if the data shows that students with higher academic performance have better placement rates, the institution can focus on improving academic standards and providing more support to students who are struggling.

Better career guidance: By analyzing the data, institutions can provide better career guidance to their students. They can identify the industries that have a high demand for graduates and provide guidance on the skills and qualifications required for those industries.

Improving curriculum: By identifying the skills that are in demand, institutions can modify their curriculum to ensure that students are equipped with the skills that are required in the job market.

Identifying areas for improvement: By analyzing the data, institutions can identify areas where they need to improve. For example, if the data shows that students are lacking in certain skills, the institution can focus on providing training and support to help students develop those skills.

Attracting employers: By having a strong placement record and understanding the needs of the industry, institutions can attract more employers to their campus for recruitment. This can lead to better job opportunities for students.

5. Disadvantags

Limited opportunities: Campus placements are limited to the employers who participate in the placement program. This means that students may not have access to a wide range of job opportunities. Additionally, some employers may only offer a limited number of positions, which can make the competition for these jobs intense.

Pressure to accept job offers: Students may feel pressure to accept job offers made during the placement program, even if they are not sure it's the right fit for them. This can result in students feeling trapped in a job that they are not happy with.

Bias in selection process: The selection process during campus placements may be biased towards certain students, such as those from prestigious colleges or with higher grades. This can disadvantage students who come from less well-known colleges or who may have lower grades but possess other valuable skills and experience.

Limited negotiation power: During campus placements, employers may offer fixed salaries and benefits to all candidates. This can limit the negotiation power of students who may have different expectations or requirements.

High expectations: There may be high expectations from students and employers during campus placements. Students may feel pressure to perform well during interviews, while employers may have high expectations for the quality of candidates they receive.

6 Application

To identify patterns and trends in campus placement applications, you can gather and analyze data related to the following:

Number of applications: Collect data on the total number of applications received by the companies during the campus placement process.

Types of companies: Analyze the types of companies that participate in the campus placement process. Look for patterns in the industries that are represented.

Job roles: Identify the job roles that are most in demand during the campus placement process. Look for trends in the job roles that are popular across multiple companies.

Academic performance: Look for patterns in the academic performance of students who are being placed. Are companies targeting specific departments or academic programs?

Salary packages: Analyze the salary packages offered to the students who are placed. Identify trends in the average salary packages offered by companies.

Gender diversity: Look for trends in the gender diversity of the students who are placed. Identify any patterns in the gender distribution of students who are placed in different job roles.

7. Conclusion

In conclusion, identifying patterns and trends in campus placement applications is an important process that can provide valuable insights for universities, students, and companies participating in the placement process. By analyzing data related to the number of applications, types of companies, job roles, academic performance, salary packages, and gender diversity, you can identify patterns and trends in the campus placement process. This information can be used to make informed decisions and adjustments to better prepare students for the job market and meet the demands of companies.

8. Future scope

There is a significant scope for future research and analysis in the area of campus placement applications. Some of the potential avenues for further exploration include:

Exploring the impact of new technologies on the campus placement process: With the increasing use of technology in the job market, it is important to examine how it is influencing the campus placement process. Future research can explore the role of AI, machine learning, and other technologies in the placement process.

Analyzing the impact of the pandemic on the campus placement process: The COVID-19 pandemic has disrupted the job market, and it is important to examine its impact on the campus placement process. Future research can explore how the pandemic has affected the types of companies, job roles, and salary packages offered to students.

Studying the factors influencing the choice of companies by students: Future research can examine the factors that influence students to choose specific companies during the campus placement process. This can provide insights into the preferences and priorities of students, and help companies tailor their job offers accordingly.

Analyzing the effectiveness of career counseling services: Universities often provide career counseling services to students to help them prepare for the job market. Future research can examine the effectiveness of these services in helping students secure placements, and identify ways to improve them.

Examining the impact of diversity and inclusion on campus placements: Diversity and inclusion are important factors in the job market, and it is important to examine their impact on the campus placement process. Future research can explore how companies are promoting diversity and inclusion during the placement process, and the impact of these efforts on the job offers extended to students.

9. Appendix

App.py

```
from flask import *
import pickle
import joblib
from tensorflow.keras.models import load_model
from jinja2 import Environment, FileSystemLoader

env =
Environment(loader=FileSystemLoader("D:\\Pyenv\\ArunKumar\\Campus_Placement\\temp
lates"))

app = Flask(__name__)

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

@app.route('/')
def index():
    template = env.get_template('index.html')
    return render_template(template)

@app.route('/details')
def details():
    template = env.get_template('home.html')
```

```
    return render_template(template)


@app.route("/predict", methods = ["POST","GET"])
def predict():
    values_list = list(request.form.values())
    fname = values_list[0]
    req_values = values_list[1:8]

    x_test = [[int(x) for x in req_values]]

    predication = model.predict(x_test)
    predict = predication[0]
    print(predict)

    if predict == 1:
        template = env.get_template('chance.html')
        return render_template(template, predict="You Got Selected.")
    else:
        template = env.get_template('nochance.html')
        return render_template(template, predict="You Are Not Selected.")


if __name__ == "__main__":
    app.run(debug=True)
```

nochance.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <link rel="stylesheet" href="../static/css/style.css">
    <link rel="preconnect" href="https://fonts.googleapis.com">
    <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
    <link
href="https://fonts.googleapis.com/css2?family=Mukta+Malar&family=Roboto&display=
swap" rel="stylesheet">
```

```
</head>
<body>

        <div class="index">
            <img src="../static/img/warning.svg" alt="" width="300" height="300">
            <h2>{{predict}}</h2><br>
            <a href="/details" class="btn">Return Home ></a>
        </div>
    </div>
</body>
</html>
```

Chance.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <link rel="stylesheet" href="../static/css/style.css">
    <link rel="preconnect" href="https://fonts.googleapis.com">
    <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
    <link
href="https://fonts.googleapis.com/css2?family=Mukta+Malar&family=Roboto&display=
swap" rel="stylesheet">
</head>
<body>
        <div class="index">
            <img src="../static/img/join.svg" alt="" width="300" height="300">
            <h2>{{predict}}</h2><br>
            <a href="/details" class="btn">Return Home ></a>
        </div>
    </div>
</body>
</html>
```