Dayananda Sagar University

SCHOOL OF ENGINEERING

AI MINI PROJECT

SYNOPSIS

Topic :

COLLEGE PLACEMENT SYSTEM

USING PYTHON

Group Members :

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1. INTRODUCTION

In the dynamic landscape of higher education, the effective placement of students into suitable career opportunities is a pivotal aspect of a college's mission. To streamline and optimize this process, we propose the development of a College Placement System using Python. This system aims to bridge the gap between students seeking employment and companies looking for talented individuals. This system serves as a comprehensive platform designed to streamline and enhance the entire placement process, benefiting both students and recruiters.

2. OBJECTIVE

Creating a college placement system using Python can be a comprehensive project.

From a student's perspective, placements can bring a wide range of benefits and opportunities. Training and management of placement is a crucial part of an educational institution in which most of the work is done manually. Manual system in colleges requires a lot of manpower and time. Manual Training and Placement which is done at various colleges is by human intervention due to which there is a maximum chance of errors. The major problem is searching and updating student data.

To address the above-mentioned problem, we have developed a College Placement System. Our system can help to resolve the issue of manual work that makes the process slow and other problems such as inconsistency and ambiguity in operations. The system intends to assist college faculties and recruiting companies in analysing the placement process more efficiently.

3. PROBLEM STATEMENT

In the ever-evolving landscape of higher education, the process of connecting students with prospective employers is often characterized by inefficiencies, lack of transparency, and manual interventions. The current manual methods of handling placement activities often result in delays, miscommunication, and missed opportunities for both students and recruiters. To address these challenges, we aim to develop a comprehensive College Placement System using Python.

4.ALGORITHM / MODEL

The system's front end involves HTML, CSS and JavaScript and the back end involves MySQL. The framework used is Django.

- Python3 : To run this project you need python 3
- Django : We have developed this project over the django2
- MySQL : You need mysql database for running this project
- MySQL Connector : For making the connection from mysql and python, we need it

5.SAMPLE CODE

```
class Student:
    def __init__(self, name, roll_number, cgpa):
        self.name = name
        self.roll_number = roll_number
        self.cgpa = cgpa
class PlacementSystem:
    def __init__(self):
        self.students = []
    def add_student(self, student):
        self.students.append(student)

    def eligible_students(self, cgpa_threshold):
        return [student for student in self.students if student.cgpa >=
cgpa_threshold]
```

Example :

student1 = Student(“Anu”, “22001”,9.8)

student2== Student("John Doe", "22002", 8.5)

student3 = Student("Jane Smith", "22003", 8.9)

```
placement_system = PlacementSystem()
placement_system.add_student(student1)
placement_system.add_student(student2)
placement_system.add_student(student3)
eligible_students = placement_system.eligible_students(8.8)
print("Eligible Students:")
for student in eligible_students:
    print(f"Name: {student.name}, Roll Number: {student.roll_number}, CGPA: {student.cgpa}")
```

SAMPLE OUTPUT

Eligible Students:

Name: Anu, Roll Number: 22001, CGPA: 9.8

Name: Jane Smith, Roll Number: 22003, CGPA: 8.9

6.ADVANTAGES OR BENEFITS

Advanced Matching Algorithm:

Implement an intelligent algorithm that efficiently matches the skills and qualifications of students with the specific requirements of job postings, increasing the likelihood of successful placements.

Simplified Application Process:

Design an intuitive and straightforward application process, allowing students to easily apply for multiple job positions and providing real-time updates on the status of their applications.

Automation of Placement Workflow:

Automate the recruitment workflow for recruiters, including job posting management, interview scheduling, and candidate evaluation, reducing manual efforts and improving overall efficiency.

Enhanced Security Measures:

Implement robust security measures to safeguard user data, ensuring confidentiality, integrity, and compliance with data protection regulations.

Structured Feedback Mechanism:

Introduce a feedback mechanism that enables companies to provide constructive feedback on candidates, fostering a learning environment for students to improve and refine their profiles.

- The system provides students with a platform to access various job opportunities easily.
- It enables students to apply for jobs in various industries.
- It saves time and resources.

7.DISADVANTAGES OR CHALLENGES

Limited Job Opportunities: Placement systems may not cover every industry or field, resulting in limited job listings or opportunities for certain disciplines or specific career paths. This can restrict options for students outside mainstream fields.

Competitive Environment: High competition among students for a limited number of job openings can create stress and pressure. Not all students may secure placements, leading to disappointment and a sense of failure for some.

Dependency on System Accuracy: Inaccurate data or mismatches in the system's algorithm can lead to mismatches between students' skills and job requirements. This can result in unsuccessful placements or dissatisfaction among both students and employers.

Bias and Inequality: Placement systems might inadvertently reflect biases based on gender, ethnicity, or socioeconomic background, impacting opportunities for certain groups. Moreover, some students might lack access to resources or guidance, affecting their ability to navigate the system effectively.

Disconnect with Industry Demands: Rapid changes in industry requirements might result in outdated information or mismatched skillsets within the

placement system. This can lead to students being unprepared for current market demands.

Lack of Personalization: Automated systems might lack the personal touch required for individualized career guidance or mentorship, affecting students' ability to explore diverse career paths or receive tailored advice.

Data Privacy Concerns: Storing personal and professional data within the system raises concerns about data privacy and security, especially if the system is vulnerable to breaches or unauthorized access.

8.APPLICATIONS

Student Placement Assistance: The system helps students find job opportunities and internships aligned with their skills, interests, and qualifications. It assists in resume building, interview preparation, and connecting students with potential employers.

Employer-Student Matching: It enables employers to post job vacancies and internship opportunities targeted at specific skill sets or academic backgrounds. This matching process facilitates the identification of suitable candidates for various roles.

Career Guidance and Counselling: Colleges can use these systems to provide career counselling, guidance, and workshops to students, assisting them in making informed career choices based on their strengths and interests.

Data Management and Analysis: The system often includes features for data collection, analysis, and reporting, providing colleges with insights into employment trends, alumni success, and industry demands. This data can help in curriculum development and program improvements.

Alumni Networking: Alumni engagement and networking opportunities can be facilitated through these systems, allowing current students to connect with graduates working in various industries for mentorship and career advice.

Streamlining Recruitment Processes: Colleges can streamline their recruitment and placement processes, making it easier to track applications, schedule interviews, and manage offers, benefiting both students and recruiters.