

ANALYTICS TOOLS FOR PLACEMENT



IBM NAAN MUDHALVAN

PROJECT REPORT

Submitted By

SINDIYAA T V (611220104141)

SOWMIYA S (611220104148)

SUNITHA S (611220104157)

VINISH V (611220104171)

in partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING in COMPUTER SCIENCE AND ENGINEERING

KNOWLEDGE INSTITUTE OF TECHNOLOGY, SALEM-63750

ANNA UNIVERSITY::CHENNAI 600 025 NOVEMBER 2023



ANALYTICS TOOLS FOR PLACEMENT



IBM NAAN MUDHALVAN

PROJECT REPORT

Submitted By

SINDIYAA T V (611220104141)

SOWMIYA S (611220104148)

SUNITHA S (611220104157)

VINISH V (611220104171)

in partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

in

COMPUTER SCIENCE AND ENGINEERING

KNOWLEDGE INSTITUTE OF TECHNOLOGY, SALEM-637504

ANNA UNIVERSITY::CHENNAI 600 025 NOVEMBER 2023

BONAFIDE CERTIFICATE

Certified that this project report titled "ANALYTICS TOOLS FOR PLACEMENT" is the bonafide work of "SINDIYAA T V (611220104141), SOWMIYA S (611220104148), SUNITHA S (611220104157), VINISH V (611220104171)" who carried out the project work under my supervision.

SIGNATURE	SIGNATURE
Dr. V. KUMAR M.E., Ph.D.,	Mrs. M. GOPIKUMARAN M.E.,
HEAD OF THE DEPARTMENT	FACULTY MENTOR
PROFESSOR	ASSISTANT PROFESSOR
Department of Computer Science	Department of Computer Science
and Engineering,	and Business Systems,
Knowledge Institute of Technology,	Knowledge Institute of Technology
Kakapalayam,	Kakapalayam,
Salem- 637 504.	Salem- 637 504.

SPOC	HEAD OF THE DEPARTMENT

ACKNOWLEDGEMENT

At the outset, we express our heartfelt gratitude to **GOD**, who has been our strength to bring this project to light.

At this pleasing moment of having successfully completed our project, we wish to convey our sincere thanks and gratitude to our beloved president **Mr. C. Balakrishnan**, who has provided all the facilities to us.

We would like to convey our sincere thanks to our beloved Principal **Dr. PSS. Srinivasan,** for forwarding us to do our project and offering adequate duration in completing our project.

We express our sincere thanks to our Head of the Department **Dr. V. Kumar,** Department of Computer Science and Engineering for fostering the excellent academic climate in the Department.

We express our pronounced sense of thanks with deepest respect and gratitude to SPOC Mr. T. Karthikeyan, Assistant Professor Computer Science and Engineering Department, for his valuable and precious guidance and for having amicable relation.

With deep sense of gratitude, we extend our earnest and sincere thanks to Faculty Mentor **Mrs. M. Jeeva**, Assistant Professor, Department of Computer Science and Engineering for her guidance and encouragement during this project.

We would also like express our thanks to all the faculty members of our department, friends and students who helped us directly and indirectly in all aspects of the project work to get completed1 successfully.

TABLE OF CONTENTS

CHAPTER NO.	TITLE	PAGE NO.
	ABSTRACT	I
	LIST OF FIGURES	II
	LIST OF ABBREVIATIONS	III
1	INTRODUCTION	1
	1.1 PROJECT OVERVIEW	1
	1.2 PURPOSE	2
2	LITERATURE SURVEY	3
3	IDEATION & PROPOSED SOLUTION	5
	3.1 PROBLEM STATEMENTS DEFINITION	5
	3.2 EMPATHY MAP CANVAS	7
	3.3 IDEATION & BRAINSTORMING	8
	3.4 PROPOSED SOLUTION	10
4	REQUIREMENT ANALYSIS	13
	4.1 FUNCTIONAL REQUIREMENT	13
	4.2 NON -FUNCTIONAL REQUIREMENT	15
5	PROJECT DESIGN	17
	5.3 DATA FLOW DIAGRAMS	17

	5.2 SOLUTION & TECHNOLOGY ARCHITECTURE	18
	5.3 USER STORIES	19
6	CODING & SOLUTIONING	27
	6.1 FEATURE 1	27
	6.2 FEATURE 2	27
7	RESULTS	28
	7.1 PERFORMANCE METRICS	28
8	ADVANTAGES & DISADVANTAGES	29
9	CONCLUSION	31
10	FUTURE SCOPE	32
11	APPENDIX	33
	A.1 SOURCE CODE	33
	A.2 SCREEN SHOTS	37
	GITHUB & PROJECT VIDEO DEMO LINK	46
	REFERENCE	47



ABSTRACT

The "Analytics Tools for Placement" project is a visionary effort aimed at reshaping career trajectories through the power of data-driven insights. In an era where career choices are increasingly complex and competitive, this project introduces a suite of advanced analytics tools designed to empower individuals in making informed career decisions. These tools draw from a wide range of data sources, including personal skills assessments, market demand data, and individual career aspirations.

By applying sophisticated data analytics and machine learning techniques, these tools provide users with invaluable insights into potential career paths, skill gaps, and customized learning strategies. Users can receive tailored recommendations for skills development, upskilling, and reskilling, aligning their competencies with the everevolving demands of the job market. This initiative ultimately leads to a more agile and well-informed workforce, capable of thriving in a dynamic employment landscape. The "Analytics Tools for Placement" project is at the forefront of leveraging data analytics for individual career success.

LIST OF FIGURES

FIGURE NAME OF 1	NAME OF FIGURE	PAGE
NO	NAME OF FIGURE	
3.2.1	Empathy Map	7
3.3.1	Brain Storming	8
5.1.1	Data Flow	17
5.1.1	Solution Architecture	18
A.2.1	Web Page Screen Shot	37
A.2.2	Dashboard Screen Shot	38
A.2.3	Report	41
A.2.4	Story	43

LIST OF ABBREVIATIONS

ABBREVIATION	EXPANSION
SMO	Social Media Optimization
ROC	Receiver Operating Characteristics
ESAP	Emotional Skill Assessment Process



CHAPTER 1

INTRODUCTION

1.1 Project Overview

In a world where information flows rapidly, our ability to communicate effectively within the confines of a single page has never been more critical. The introductory section of a one-page document serves as both the anchor and the sail of your content, charting the course for readers and propelling them into the heart of the message.

This introductory passage is akin to the opening act of a grand theatrical performance. It is where the spotlight first shines, casting an enticing glow on the main message, purpose, or subject matter that awaits exploration. Like a trailer for an eagerly awaited movie, it offers a tantalizing glimpse of what's to come, stoking curiosity and prompting the audience to venture further.

The introduction is, in essence, the genesis of engagement. It stands as the eloquent envoy between your thoughts and your audience's curiosity. Its clarity illuminates the path, its engagement secures the connection, and its conciseness ensures that you seize the reader's limited attention span.

Just as in life, you only have one chance to make a first impression. A masterfully composed introduction leaves an indelible mark, paving the way for your one-page communication to fulfill its purpose and resonate with its audience. It is not just a formality; it is the nucleus around which your entire message orbits. In this era of rapid consumption, the skill of crafting compelling introductions is the compass guiding effective one-page communication.

1.2 Purpose

The significance of analytics tools in the placement arena cannot be overstated. They act as a compass in a constantly evolving job landscape, helping job seekers navigate their career paths with precision. These tools provide real-time data on in-demand skills, industry-specific trends, and geographical hotspots for job opportunities. Job seekers can, therefore, strategically develop their skill sets and target their job searches, thus increasing their chances of securing positions that align with their goals.

For employers, analytics tools are invaluable assets in talent acquisition. By analyzing historical hiring data, they can identify patterns and gaps in their workforce, making it easier to recruit individuals with the right qualifications and fit. Moreover, these tools aid in optimizing recruitment strategies, from sourcing candidates to on boarding, ultimately leading to more cost-effective and efficient hiring processes.

Analytics tools also have the power of foresight. They can help organizations anticipate future hiring needs by examining data trends and industry shifts. This proactive approach ensures that companies are well-prepared to meet their staffing requirements, fostering stability and growth in a dynamic job market.



CHAPTER 2

LITERATURE SURVEY

2.1 "Using Data Mining to Benefit Future Students

They use different techniques like decision trees, naive bayes and artificial neural networks and declare four class labels excellent good, average and poor for each branch. A student needs to enter his entrance rank, gender (M/F), sector (rural/urban) and reservation category, and then using data mining techniques, he or she may know which branch is suitable for him or her. Then with the help of above information a student enters his branch, location etc and on the root of which the placement chances for different streams of study is calculated. Hence student may opt for the branch providing chances of excellent placement. At the end of the paper the three techniques are compared and it shows that decision tree is slightly good in terms of accuracy however the difference is unimportant. And therefore there is no universally accepted best model.

2.2 Tripti Mishra et al.: Classification Methods

Optimization (SMO), Ensemble methods, decision tress using WEKA and emotional skill like assertion, empathy, decision making leadership and stress management to predict placement of students. ROC curve and F measure are used to compare these algorithms. Emotional skill parameters are assessed through Emotional skill assessment process (ESAP) tool. All the models are compared and 148 is suggested as the best technique among all with the best accuracy and least time to build.

2.3 Unlocking Hidden Student Insights with EDM: Revathy S et al

The paper uses data mining techniques to get an idea of students composing for the coming placement activity. A reliable framework is designed to locate students to be placed in whole database. Classification technique is used to categorize student according to their academic documentation. The specifications used for categorization are academic detail, technical skill, programming skill, quantitative and reasoning skill. To forecast about the company student is likely to be placed. C5.0 algorithm is used for classification, which result in decision tree formation using Quinlan, The prediction is done using R, where data is divided into two parts one is training data other is test data. The output predicted is displayed using a pie chart and accuracy of 75% is observed.

2.4 Predictive Modeling for Training and Placement Success: An Evaluation of Classification Algorithms and Attribute Impact

Collected data of 65 students and evaluated using classification algorithm like Naïve Bayesian, C4.5 tree, and multilayer perception; for the prediction of training and placement. The attribute chosen from the database for evaluation include sex, STUDENTS result, seminar performance, lab work, communication skill, and graduation background. Attribute assessment is done using chi-square test, information-gain and gain-ratio test. Average of these assessments is taken for each attribute and it was observed that sex has most impact on the output. Naïve Bayes classifier has highest accuracy rate of 86.15% with 0 time to build and lowest error 0.28.



CHAPTER 3

IDEATION & PROPOSED SOLUTION

3.1 Problem Statement Definition

In the context of academic institutions and job placement services, the current lack of efficient and integrated analytics tools poses significant challenges for effectively matching students' skill sets with job requirements, thereby hindering the optimization of placement processes. This gap in analytics tools results in limited visibility into students' capabilities, industry trends, and employer expectations, leading to suboptimal job placements and decreased overall success rates. Thus, there is a pressing need to develop comprehensive analytics tools tailored to the specific requirements of the placement domain, which can facilitate data-driven decision-making, enhance the alignment between student skills and employer needs, and ultimately improve the overall efficiency and effectiveness of the placement process.



Problem Statement (PS)	I am (Customer)	I'm trying to	But	Which makes me feel
PS -1	User	Seeking a	Site not	Anxiety
rs-i Usei	OSCI	Job	responding	AllAlety
PS -2	User (Agent)	Solve	No longer	Frustrated
FS-2 0	Osei (Agent)	Problem	unavailable	Trustrated
PS -3	User (Admin)	Backup	System	Cumbersome
13-3 Osei (Adilliii)		Data	Failure	Cumbersome
PS -4	User	Looking for	Agent Not	Stressed
13-4	User	Status	Updated	Suesseu

3.2 EMPATHY MAP CANVAS

The empathy map emphasizes distinct needs of how students prioritize user-friendly job searches, employers seek efficient candidate identification, and administrators emphasize data analytics. In practice, students engage actively, employers streamline assessments, and administrators rely on data-driven decisions. Emotionally, students fluctuate between anxiety and confidence, employers between satisfaction and frustration, and administrators between excitement and concern. This comprehension guides the tool's evolution, enhancing program efficiency and user-friendliness.

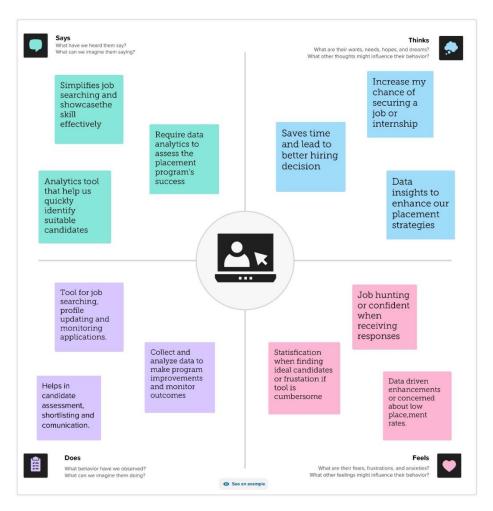


Figure 3.2.1 Empathy map.

3.3 IDEATION AND BRAIN STROMING

Brainstorming fosters a liberated setting where all team members are encouraged to engage in the creative thought process, ultimately leading to problem-solving. Emphasizing quantity over quality, unconventional ideas are warmly received.

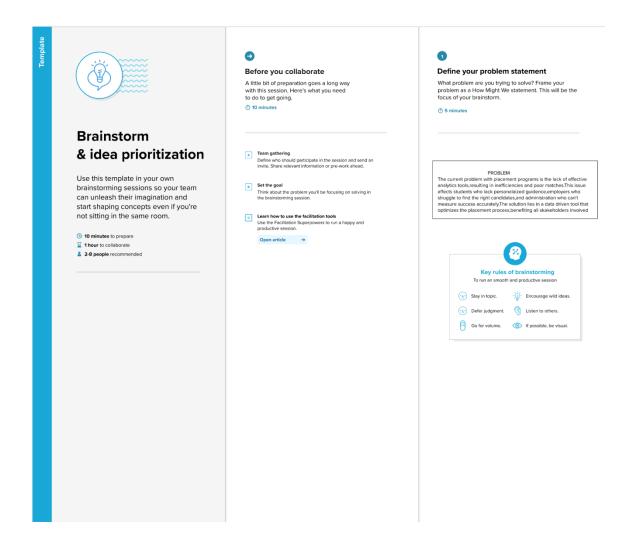


Figure 3.3.1 Brain Storming.

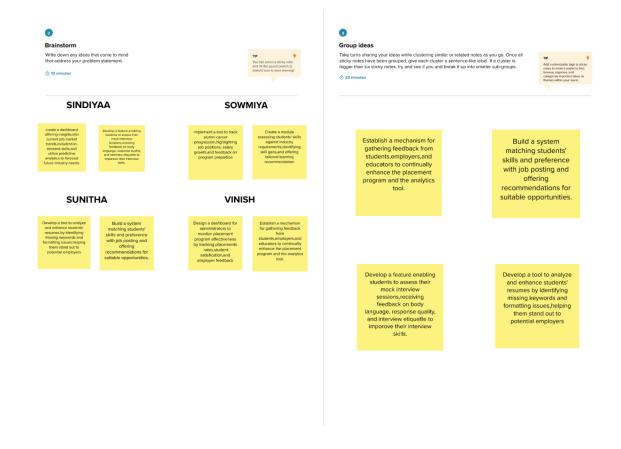


Figure 3.3.1 Brain Storming.

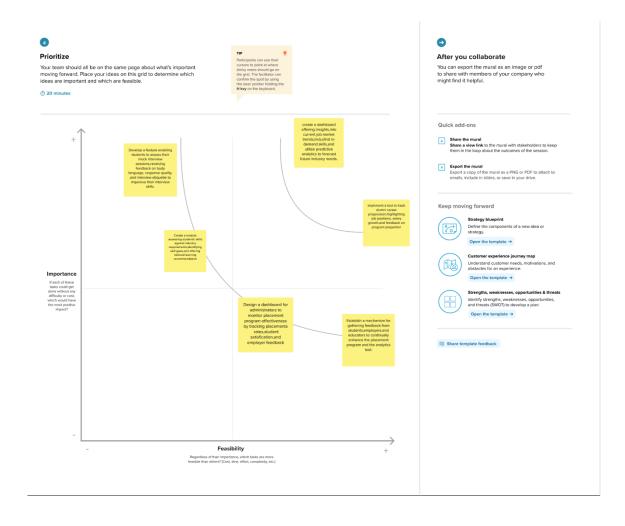


Figure 3.3.1 Brain Storming.

3.4 PROPOSED SOLUTION

S. No.	Parameter	Description	
01.	Problem Statement (Problem to be solved)	In education and recruitment, a gap between student skills and employer expectations leads to suboptimal job placements. Current procedures lack data-driven insights, hindering understanding of industry trends and preferences. This challenges both student employment and employer candidate searches. Thus, tailored analytics tools are crucial to ensure a seamless match between student skills and employer needs.	
02.	Idea / Solution description		
03.	Novelty / Uniqueness Integration of AI-driven personality analysis is enhanced cultural fit assessment between candidate and employers. Real-time job market mapping for proactive skalignment, ensuring graduates meet the evolving demands of the industry.		

04.	Social Impact / Customer Satisfaction	The analytics tools for placement foster increased job satisfaction and reduced unemployment rates, thereby contributing to a more stable and inclusive society.	
05.	Business Model (Revenue Model)	 Offer tiered subscriptions to educational institutions and recruitment agencies, granting access to advanced analytics features and tailored support. Charge one-time or periodic licensing fees based on user count or deployment scale for access to the analytics software. Provide personalized consulting services, including data analysis and training workshops, to cater to specific client needs and offer supplementary value beyond the core analytics tools. 	
06.	Scalability of the Solution The solution for analytics in placement analysis highly scalable, utilizing a cloud-based infrastructu and a modular design for easy integration of ne features. Compatibility across multiple platform ensures seamless expansion without compromising accessibility or performance.		



CHAPTER 4

REQUIREMENT ANALYSIS

4.1 FUNCTIONAL REQUIREMENTS

Following are the functional requirements of the proposed solution.

FR.NO	Functional Requirement (Epic)	Sub Requirement (Story Sub-Task)
FR.1	Data Collection	Data collection involves comprehensive student data on skills, academic performance, and career preferences, alongside real-time updates on industry trends and employer demands for accurate analysis.
FR.2	Data Cleaning	Data cleaning ensures high-quality and reliable student and job market data by identifying and rectifying inconsistencies, inaccuracies, and missing information, facilitating accurate analysis and decision-making.

FR.3	Data Preparation	Data preparation for analytics tools for placement involves organizing, integrating, and formatting the collected data into a structured and usable format, ready for analysis, to derive valuable insights and make informed decisions for successful
FR.4	Data Analysis	Data analysis involves applying statistical and machine learning techniques to interpret prepared data, identifying patterns and correlations between student skills and job market requirements, aiding informed decision-making for student placements.
FR.5	Data Visualization	To Communicate the insights from the analysis effectively, data visualization techniques can be used. This may include creating charts, Graphs and dashboard to visualize the data in a meaningful way.

FR.6	Reporting	Finally, A Report can be generated
		that summarizes the findings from the
		data analysis. This report may include
		Visualizations, insights and
		recommendations for companies or Job
		seekers based on the analysis.

4.2 NON- FUNCTIONAL REQUIREMENTS

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional	Description
	Requirement	
NFR.1	Usability	Usability entails an intuitive interface, easy navigation, and robust user support, enabling seamless access and interpretation of insights for educational institutions and recruiters, thus optimizing the student placement process and enhancing efficiency.
NFR. 2	Security	Security involves robust data encryption, user authentication, and regular audits to safeguard sensitive information, ensuring data integrity and protection against cyber threats, fostering trust within the placement ecosystem.

NFR.3	Reliability	Reliability ensures consistent data accuracy, stable performance, and minimal downtime through rigorous testing and validation processes, fostering confidence in the tool's capacity to deliver accurate insights for successful student placements.
NFR.4	Performance	Performance involves optimizing processing speed, efficient handling of large datasets, and real-time analytics capabilities for swift and accurate data analysis, enhancing the efficiency of student placements.
NFR.5	Availability	Availability involves minimal downtime, robust backup systems, and reliable support, ensuring continuous access to the tool's features and data, thus enhancing the efficiency of student placements.
NFR.6	Scalability	Scalability involves handling growing data volumes, accommodating user demands, and seamlessly integrating additional features, ensuring the tool remains effective in evolving educational and recruitment environments.



CHAPTER 5

PROJECT DESIGN

5.1 DATA FLOW DIAGRAMS

A Data Flow Diagram (DFD) is a conventional visual depiction of how information moves within a system. A well-organized and comprehensible DFD can visually convey the precise system requirements. It illustrates the pathways through which data enters and exits the system, identifies the points of data transformation, and indicates where data is stored.

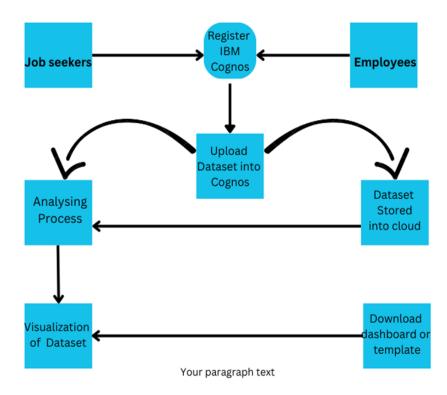


Figure 5.1.1 Data Flow Diagram.

5.2 SOLUTION / TECHNICAL ARCHITECTURE

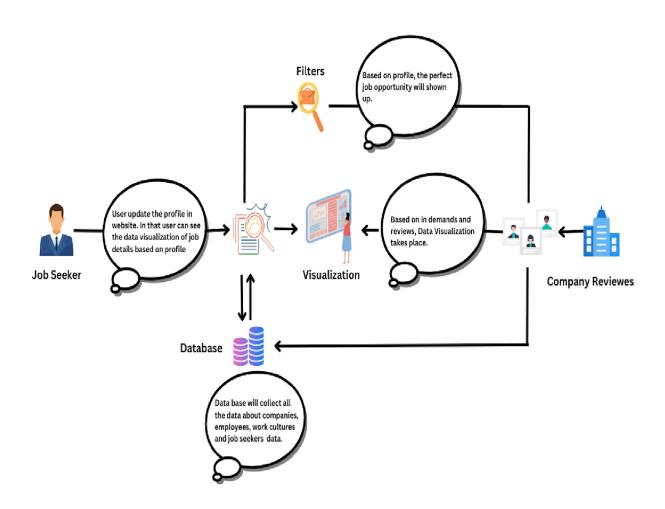


Figure 5.2.1 Solution Architecture Diagram.

5.3 USER STORIES

User story	Functional	Release	User	User Story	Acceptance	
	requiremen		Numbe		Criteria	Priority
	ts		r story			
Hiring	Detailed and	Sprint 1	USN-1	As a hiring	The tool	High
Manager	updated			manager, I	should	
	student			need access	provide	
	details			to detailed	detailed	
				student	student	
				profiles,	profiles, real-	
				real-time	time trend	
				placement	visualization	
				trends, and	reporting,	
				customizabl	seamless	
				e reports to	database	
				make	integration,	
				informed	and robust	
				hiring	data security	
				decisions	measures.	
				and ensure		
				suitable		
				candidate		
				matches.		

Job Seeker	Access to	Sprint 1	USN-2	As a job	The platform	High
	job listings			seeker, I	allows	
				want a user	intuitive	
				friendly	navigation	
				platform	for efficient	
				with	job searches,	
				customized	customizable	
				job alerts,	job alerts,	
				resume	comprehensi	
				building	ve resume	
				tools,	building and	
				interview	interview	
				preparation	preparation	
				resources,	tools, and	
				and	accessible	
				dedicated	user support,	
				user support	enhancing	
				to enhance	the overall	
				my job	job search	
				search and	experience.	
				improve my		
				employ		
				prospects.		

Recruiter	Access to	Sprint 2	USN-3	As a	The system	High
	job listings			recruiter, I	must offer	
				need access	detailed	
				to	student	
				comprehensi	profiles with	
				ve student	accurate	
				profiles,	assessments,	
				efficient	efficient	
				candidate	candidate	
				screening	screening,	
				tools, real-	real-time	
				time	analytics,	
				analytics,	seamless	
				and	communicati	
				seamless	on, and	
				communicati	integration	
				on features	with external	
				to make	platforms,	
				informed	ensuring	
				hiring	effective	
				decisions	recruitment	
				and	and informed	
				streamline	decision	
				the	making.	
				recruitment		
				process		
				effectively.		

Business	Data	Sprint 3	USN-4	As a	The system	High
Owner	analytics			business	must offer	
	reports			owner, I	detailed	
				need	analytics	
				comprehensi	reports and	
				ve analytics,	customizable	
				customizabl	visualization	
				e	tools for	
				visualization	monitoring	
				, and secure	key metrics.	
				data	Integration	
				management	with external	
				to optimize	data sources	
				the	should	
				placement	provide	
				program and	comprehensi	
				ensure	ve industry	
				competitiven	understandin	
				ess.	g,while	
					ensuring data	
					security.	

Researche	Research	Sprint 4	USN-5	As a	The system	Mediu
r	data access			researcher, I	must offer	m
				need access	researchers	
				to	comprehensi	
				comprehensi	ve and	
				ve	updated data	
				placement	sets,	
				data,	advanced	
				advanced	analysis	
				analysis	tools,	
				tools, and	customizable	
				secure data	research	
				sharing	reports for	
				capabilities	academic	
				to conduct	publications,	
				in-depth	secure data	
				research,	sharing	
				identify	protocols,	
				industry	and	
				trends, and	integration	
				contribute to	with	
				the	academic	
				academic	databases for	
				community's	expanded	
				knowledge	research.	
				base.		

Human	Candidate	Sprint 4	USN-6	As a human	The system	High
Resources	Management			resource	must provide	
Manager	Efficiency			manager, I	comprehensi	
				require	ve candidate	
				access to	profiles,	
				comprehensi	intuitive	
				ve candidate	filtering and	
				profiles,	sorting	
				intuitive	features,	
				filtering	automated	
				features,	scheduling,	
				automated	customizable	
				scheduling,	reporting	
				customizabl	tools, and	
				e reporting	secure data	
				tools, and	management	
				secure data	protocols	
				management		
				to optimize		
				the		
				recruitment		
				process,		
				make		
				informed		
				decisions,		
				and ensure		
				the best		
				placements		
				for the		
				organization		

Market	Real-time	Sprint 3	USN-7	As a market	The system	High
Analyst	trends and			analyst, I	needs to	
	data			need access	provide real-	
	analysis.			to real-time	time access	
				market	to market	
				trends and	trends and	
				comprehensi	demands,	
				ve analytical	analytical	
				tools to	tools for	
				assess the	comparing	
				competitiven	program	
				ess of	competitiven	
				placement	ess,	
				programs,	integrated	
				gather	external data	
				industry	sources for	
				insights, and	industry	
				create	insights,	
				detailed	customizable	
				market	reporting for	
				analysis	detailed	
				reports for	analysis, and	
				informed	secure data	
				decision-	management.	
				making.		

Business	Data	access	Sprint 2	USN-8	As a	The system	High
Analyst	and				business	needs to	
	advan	iced			analyst, I	provide	
	analys	sis			need access	comprehensi	
					to	ve data	
					comprehensi	access and	
					ve	advanced	
					placement	analysis	
					data and	tools,	
					advanced	customizable	
					analytical	reporting	
					tools to	features,	
					identify	integrated	
					trends,	external	
					create	systems for	
					detailed	reliable data,	
					reports, and	and secure	
					ensure data	data	
					integrity for	management	
					effective		
					decision		
					making and		
					strategic		
					planning in		
					the field of		
					student		
					placements.		

Data	data	access	Sprint 5	USN-9	As a data	The system	High
Scientist	and				scientist, I	needs to	
	mode	ling			require	provide	
					access to	comprehensi	
					comprehensi	ve and	
					ve	regularly	
					placement	updated data	
					data,	sets,	
					advanced	advanced	
					modeling	modeling and	
					capabilities,	machine	
					and secure	learning	
					data	capabilities,	
					management	integrated	
					to derive	external data	
					meaningful	sources,	
					insights,	customizable	
					build	reporting	
					accurate	features, and	
					predictive	secure data	
					models, and	management	
					contribute to	protocols.	
					effective		
					decision-		
					making and		
					strategy		
					development		
					in the		
					domain of		
					student		
					placements.		



CHAPTER 6 CODING & SOLUTIONING

6.1 FEATURE 1

The analytics tools for placement streamline the process by offering features such as comprehensive student profiling for accurate matching, real-time job market analysis for up-to-date insights, and automated matching algorithms for seamless pairing. Customizable reporting enables informed decision-making, while student progress tracking ensures personalized guidance and support, enhancing the overall effectiveness of the placement process.

6.2 FEATURE 2

Another vital feature offered by analytics tools for placements is seamless integration with existing Learning Management Systems (LMS). This integration allows for a comprehensive overview of student performance, combining data from the placement analytics tool with data from the LMS. By analyzing this combined data, educators and placement professionals can identify specific skill gaps, strengths, and weaknesses, enabling them to design targeted interventions and personalized learning plans to enhance student employability. The integration with LMS facilitates a more holistic approach to student development, ensuring that the placement process is aligned with the overall educational journey, and empowering students with the necessary skills and knowledge for successful career

CHAPTER 7 RESULTS

7.1 PERFORMANCE METRICS

Performance metrics for analytics tools for placements typically include the efficiency of student-to-job matches, measured by the percentage of successful placements within specific time frames. Additionally, the tool's processing speed, assessed through data analysis and visualization time, is crucial. User satisfaction and adoption rates are also essential indicators, reflecting the ease of use and value of the tool for educational institutions and recruiters. Moreover, tracking the tool's impact on reducing the time taken to fill job vacancies and its contribution to improving student employability serves as a key performance metric, demonstrating the overall effectiveness and success of the analytics tool in the placement process.



CHAPTER 8

ADVANTAGES AND DISADVANTAGES

8.1ADVANTAGES

- Enhanced Efficiency: Streamlines the placement process by efficiently matching student skills with job requirements, reducing the time and resources needed for successful placements.
- Informed Decision-Making: Provides valuable insights into industry trends, job market demands, and student capabilities, enabling informed decisions for curriculum development and career guidance.
- Personalized Guidance: Facilitates personalized support for students by identifying skill gaps and providing targeted interventions, enhancing their employability and career prospects.
- Improved Student-Employer Matches: Increases the likelihood of successful student-employer matches by ensuring a better understanding of employer expectations and student competencies, leading to higher satisfaction for both parties.
- Data-Driven Strategies: Enables the implementation of data-driven strategies in educational institutions and recruitment agencies, fostering a more proactive and adaptive approach to the evolving demands of the job market..

8.2 DISADVANTAGES

- Data Privacy Concerns: Handling sensitive student and employer data may raise privacy and security concerns, necessitating stringent data protection measures and compliance with privacy regulations.
- Initial Implementation Costs: Setting up the analytics tools and training staff can incur significant initial investment, requiring careful budget allocation and resource management.
- Technological Dependency: Relying heavily on technology for decision-making may lead to a potential overreliance on automated processes, potentially overshadowing human judgment and intuition in the placement process.
- Skill Set Limitations: Depending solely on data-driven insights may overlook the holistic evaluation of students' interpersonal skills, creativity, and other qualitative attributes, potentially limiting the accuracy of the match between candidates and job requirements.
- User Resistance: Staff and users may initially resist the adoption of new technologies, necessitating thorough training and change management strategies to ensure smooth integration and effective utilization of the analytics tools.



CHAPTER 9

CONCLUSION

In conclusion, the implementation of analytics tools for placement holds the promise of significantly improving the efficiency and efficacy of the placement process in educational institutions and recruitment agencies. By leveraging comprehensive data analysis, these tools can facilitate informed decision-making, leading to enhanced student-employer matches and a better understanding of evolving job market demands. While the benefits are substantial, it is crucial to address potential concerns such as data privacy, initial implementation costs, and the need for a balanced approach to technology and human judgment. With careful consideration of these factors, the integration of analytics tools has the potential to revolutionize the placement process, fostering a more seamless and effective transition for students into the workforce and contributing to the overall advancement of the educational and recruitment landscapes.



CHAPTER 10

FUTURE SCOPE

In the future, analytics tools for placement are poised to advance significantly. This includes the integration of predictive analytics for forecasting job market trends, the incorporation of AI algorithms for improved matching, and the use of blockchain for secure data management. Additionally, the implementation of AR applications for practical skill development and the establishment of continuous learning feedback loops between institutions and employers will play a crucial role in enhancing the effectiveness and relevance of these tools in the evolving placement landscape.



CHAPTER 11 APPENDIX

A.1 SOURCE CODE

index.html

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-</pre>
scale=1.0">
  <title>Naan Mudhalvan</title>
  <link rel="stylesheet" href="style.css">
</head>
<body>
  <div class="nav-top">
    <div class="nav-top-logo">
       <img
                   src="images/logo1.png"
                                                width="150px"
height="90px">
    </div>
    <div class="nav-top-list">
       \langle ul \rangle
         li
                                                 class="list"><a
href="C:\Users\Admin\Documents\Placement\index.html">Home</a
>
                                                 class="list"><a
         li
href="C:\Users\Admin\Documents\Placement\about.html">About</a
>
                                                 class="list"><a
         li
href="C:\Users\Admin\Documents\Placement\services.html">Servic
e</a>
                                                 class="list"><a
href="C:\Users\Admin\Documents\Placement\contact.html">Contact
Us</a>
       <div class="dropdown">
         <button
                                         onclick="myFunction()"
```

```
class="dropbtn">Analysis</button>
         <div id="myDropdown" class="dropdown-content">
href="C:\Users\Admin\Documents\Placement\ds.html"
target="_blank">Dashboard</a>
          <a href="C:\Users\Admin\Documents\Placement\re.html"
target="_blank">Report</a>
          <a href="C:\Users\Admin\Documents\Placement\st.html"
target="_blank">Story</a>
         </div>
      </div>
    </div>
  </div>
  <div class="body">
    <div class="body-main">
      <div class="body-1">
         Your journey through college leads to a
path of opportunities.
         College placements bridge the gap between
education and the real world, offering students a chance to apply
their knowledge in a professional setting. They are a vital stepping
stone towards fulfilling career aspirations and realizing one's
potential."
         <div class="body-button">
           <a href=""> <button>Know More</button></a>
         </div>
      </div>
       <div class="body-2">
         <img src="images/img3.png" width="650" height="500">
       </div>
    </div>
  </div>
  <script>
    /* When the user clicks on the button,
    toggle between hiding and showing the dropdown content */
    function myFunction() {
document.getElementById("myDropdown").classList.toggle("show"
);
    }
    // Close the dropdown if the user clicks outside of it
```

```
window.onclick = function(event) {
             if (!event.target.matches('.dropbtn')) {
                                        dropdowns
                                                                          =
       document.getElementsByClassName("dropdown-content");
              var i;
              for (i = 0; i < dropdowns.length; i++) {
                var openDropdown = dropdowns[i];
                if (openDropdown.classList.contains('show')) {
                 openDropdown.classList.remove('show');
            </script>
       </body>
       </html>
style.css
     *{
       margin: 0;
       padding: 0%;
       font-family: sans-serif;
     }
     .nav-top{
       display: flex;
       justify-content: space-between;
       box-shadow: 0 4px 20px gray;
       position: fixed;
       top: 0;
       background-color: white;
       left: 0;
       width: 100%;
       z-index: 100;
```

```
}
.nav-top-list{
  display: flex;
  justify-content: center;
  align-items: center;
  margin-right: 60px;
}
.body{
  background-color: rgba(237, 237, 237, 0.649);
  padding: 100px 60px 0 60px;
}
.body-main{
  display: flex;
  gap: 40px;
  margin-top: 100px;
.body-1{
  width: 50%;
.body-2{
  width: auto;
}
.body-1 .p1{
  font-size: 40px;
  line-height: 60px;
  color: rgb(12, 108, 123);
  text-shadow: 1px 2px 3px rgb(80, 97, 99);
  margin-bottom: 40px;
```

```
margin-top: 80px;

}
.body-1 .p2{
  font-size: 16px;
  letter-spacing: 1px;
  line-height: 25px;

}
.body-button{
  margin-top: 30px;

}
.body-button a{
  text-decoration: none;
  color: black;
  font-size: 18px;

}
```

A.2 SCREENSHOTS

A.2.1 WEB PAGE SCREENSHOTS

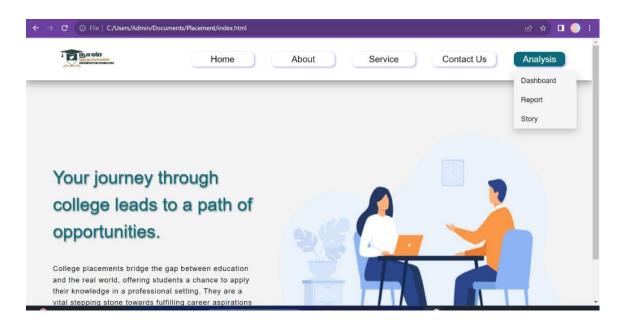


Fig A.2.1.1 HOME PAGE FOR WEBSITE

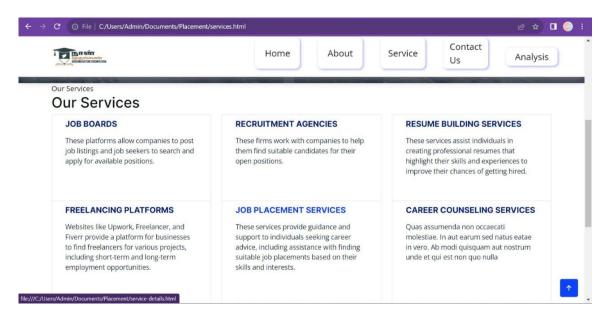


Fig A.2.2.2 PROVIDED SERVICE PAGE

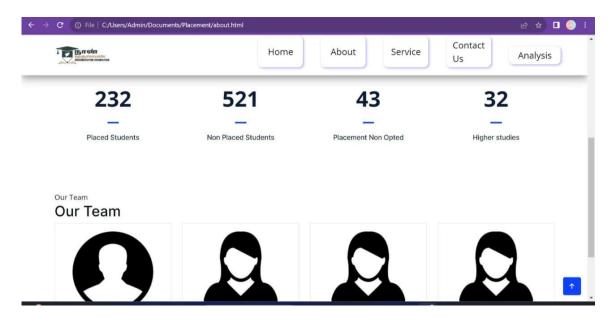


Fig A.2.2.2 ABOUT PAGE

A.2.2 DASHBOARD



Fig A.2.2.1 NO. SALARY AND STATUS

A.2.3 REPORT



Fig A.2.3.1 WORKERS ANALYSIS BASED ON GENDER

A.2.4 STORY

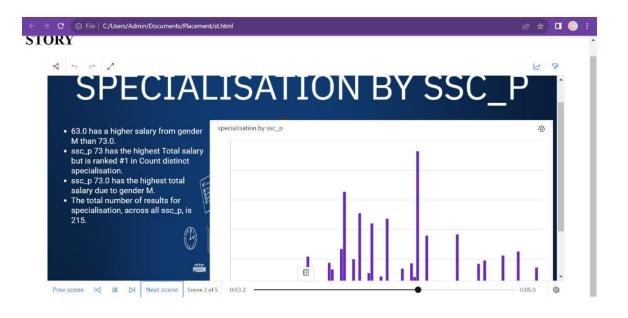


Fig A.2.4.1 ANALYTICS TOOL FOR FOR PLACEMENT

GITHUB & PROJECT DEMO LINK

GITHUB LINK:

 $\frac{https://github.com/VINISH29/Naan-Mudhalvan-Data-Analysis-NM2023TMID01801}{NM2023TMID01801}$

PROJECT DEMO LINK:

https://drive.google.com/file/d/141bkSUTyR82m4w9R1_wdSfh5A9

WEWwue/view?usp=drivesdk

REFERENCE

- [1] Revathy S, Roopika G, Rishitha R, Revathy P. "An approach to suggest company specific placement opportunities using data mining techniques" IJCSMC (2320-088X) vol-6.
- [2] Sudheep Elayidom, Summan Mary Idikkula, Joseph Alexander, "A generalized data mining framework for placement chance prediction problems" International journel of computer applications(0975-8887) volume 31- No.3.
- [3] Tripti Mishra, Dharminder Kumar, Sangeeta Gupta, "Students' employability prediction model through data mining" International journal of applied engineering research ISS0973-4562 volume 11.
- [4] Ajay Kumar Pal, Saurabh Pal, "Classification model of prediction for placement of students" Modern education and computer science (49-56)