# ANALYTICS TOOL FOR PLACEMENTS

# NAAN MUDHALVAN

## PROJECT REPORT

*Submitted By*

**KAVYA P (611220104069)**

**MANJU K (611220104081)**

**MANJUREKHA R (611220104082)**

**OLICHIA PRIJIT B (611220104100)**

**PARTHASARATHI V (611220104102)**

*in partial fulfilment for the award of the degreeof*

**BACHELOR OF ENGINEERING**

***in***

**COMPUTER SCIENCE AND ENGINEERING**

**KNOWLEDGE INSTITUTE OF TECHNOLOGY,**

**SALEM-637504**

**ANNA UNIVERSITY::CHENNAI 600 025**

**OCTOBER 2023**

# ANALYTICS TOOL FOR PLACEMENTS

# NAAN MUDHALVAN

## PROJECT REPORT

*Submitted By*

**KAVYA P (611220104069)**

**MANJU K (611220104081)**

**MANJUREKHA R (611220104082)**

**OLICHIA PRIJIT B (611220104100)**

**PARTHASARATHI V (611220104102)**

*in partial fulfilment for the award of the degreeof*

**BACHELOR OF ENGINEERING**

***in***

**COMPUTER SCIENCE AND ENGINEERING**

**KNOWLEDGE INSTITUTE OF TECHNOLOGY,**

**SALEM-637504**

**ANNA UNIVERSITY::CHENNAI 600 025**

**OCTOBER 2023**

# BONAFIDE CERTIFICATE

Certified that this project report titled **"ANALYTICS TOOL FOR PLACEMENTS"** is the bonafide work of **"KAVYA P (611220104069), MANJU K (611220104081), MANJUREKHA R (611220104082), OLICHIA PRIJIT B (611220104100), PARTHASARATHI V (611220104102)"** who carried out the project work under my supervision.


**SIGNATURE**
Dr. V. KUMAR M.E., Ph.D.,
**HEAD OF THE DEPARTMENT**
**PROFESSOR**
Department of Computer Science
and Engineering,
Knowledge Institute of Technology,
Kakapalayam,
Salem- 637 504.

**SIGNATURE**
Mr.J.MURUGESAN ,B.E.,M.E.
**FACULTY MENTOR**
**ASSISTANT PROFESSOR**
Department of Information Technology
and Engineering,
Knowledge Institute of Technology,
Kakapalayam,
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 adequateduration 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 our Faculty Mentor **Mr.J.Murugesan** ,Department of Information Technology for their valuable and precious guidance and for having amicable relation.

With deep sense of gratitude, we extend our earnest and sincere thanks to our SPOC **Mr.T. Karthikeyan,** Assistant Professor, Department of Computer Science and Engineering for his 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 completed successfully.

# TABLE OF CONTENTS

# ABSTRACT

# ABSTRACT

This project employs an IBM Cognos-based analysis of a comprehensive dataset encompassing candidates' educational, professional backgrounds, and placement outcomes. Through rigorous examination, it delves into the correlation between educational performance and placement status, gender-based disparities in placements, the impact of prior work experience, and the connection between specialization and salary offers. By scrutinizing these factors, the study aims to extract pivotal insights into the determinants shaping placement outcomes. This comprehensive analysis promises to offer valuable insights for educational institutions and employers seeking to optimize their recruitment strategies and enhance candidate placement success.

# LIST OF FIGURES

# LIST OF ABBREVIATIONS

| ABBREVIATION | EXPANSION |
|---|---|
| CSV | Comma-Separated Values |
| OTP | One-Time Password |
| CGPA | Cumulative Grade Point Average |
| ERP | Enterprise Resource Planning |
| SAT | Scholastic Assessment Test |

# INTRODUCTION

# CHAPTER – 1

# INTRODUCTION

## 1.1 PROJECT OVERVIEW

This project is focused on conducting predictive analysis to gain profound insights into the determinants affecting campus placement outcomes for students. The dataset encompasses students' academic performance, demographics, work experience, and their current placement status, rendering it an invaluable resource for comprehending the intricacies of campus recruitment. The primary objective is to offer invaluable insights into the factors shaping campus placement outcomes, enabling students, academic institutions, and recruiters to make well-informed decisions. Leveraging predictive modelling and exploratory data analysis, this endeavour seeks to unravel the dynamics of campus recruitment, ultimately delivering actionable recommendations to enhance placement rates and optimize salary negotiations.

## 1.2 PURPOSE

The purpose of this project is to utilize data analysis and predictive modelling techniques to gain a deeper understanding of the factors that influence campus placement outcomes for students. By examining data related to academic performance, demographics, work experience, and placement status, the project aims to provide actionable insights for students, educational institutions, and recruiters. These insights can inform decision-making processes, helping students make informed career choices, assisting academic institutions in improving placement rates, and aiding recruiters in making more effective hiring decisions. Ultimately, the purpose is to enhance the overall campus recruitment process and outcomes for all stakeholders involved.

# LITERATURE SURVEY

# CHAPTER – 2

# LITERATURE SURVEY

## 1) DATA ANALYTICS ON PLACEMENT DATA IN A SOUTH ASIAN UNIVERSITY (2017 INTERNATIONAL CONFERENCE ON ENERGY, COMMUNICATION, DATA ANALYTICS AND SOFT COMPUTING (ICECDS))

Placement of students in appropriate jobs is very important to college recruitment or placement committee of a university. It is crucial to identify parameters and discover trends that improve a student's chances of getting a suitable job. The placement team selects students based on company criteria like education history and CGPA. After that the students have to clear the company's evaluation levels, namely aptitude, technical and personal interview to get the job. To identify key roles and factors that enable a student to successfully navigate this process. This would provide insight into improving the overall placement process and highlight areas that need attention. In this study, we have analyzed historical placement data from 2014 to 2016 to infer relevance of placement techniques and trends in recruitment over the years. We have also employed an alumni survey to gauge the relevance of college curriculum to the current job of the alumnus.

## 2) FAST ANALYTIC PLACEMENT USING MINIMUM COST FLOW (2007 ASIA AND SOUTH PACIFIC DESIGN AUTOMATION CONFERENCE)

Many current integrated circuits designs, such as those released for the ISPD2005[14] placement contest, are extremely large and can contain a great deal of white space. These new placement problems are challenging; analytic placers perform well, but can suffer from high run times. In this paper, we present a new placement tool called Vaastu. Our approach combines continuous and discrete optimization techniques. We utilize network flows, which incorporate the more realistic half-perimeter wire length objective, to facilitate module spreading in conjunction with a log-sum-exponential function based analytic approach. Our approach obtains wire length results that are competitive with the best-known results, but with much lower run times.

## 3) TNP VISION: AUTOMATION AND ANALYSIS OF CAMPUS PLACEMENTS IN COLLEGES (2021 5TH INTERNATIONAL CONFERENCE ON COMPUTER, COMMUNICATION AND SIGNAL PROCESSING (ICCCSP))

This paper represents an Enterprise Resource Planning (ERP) system for

Training and Placement Cell in educational institute campuses. The proposed system called TnP Vision aims to automate the entire placement process. It is an interactive software platform that focuses on student data management and analysis to digitize practices. It provides insights for all participants on placement activities. Apart from the existing systems, tracking student's progress and predicting areas of improvement is the core focus. Built on top of the Django framework, it uses python backed data analytics modules to peruse the candidate's information. Web Scraping is inherited to scrape placement posts from Linkedin.

**4) A STABLE AND EFFICIENT ANALYTICAL PLACEMENT BASED ON DIFFUSION (2008 ASIA AND SOUTH PACIFIC DESIGN AUTOMATION CONFERENCE)**

Nowadays a placement problem often involves multi-million objects and excessive fixed blockages. We present a new global placement algorithm that scales well to the modern large-scale circuit placement problems. We simulate the natural diffusion process to spread cells smoothly over the placement region, and use both analytical and discrete techniques to improve the wire length. Although any analytical wire length technique can be used in our new framework, by using the quadratic wire length model, the hessian of our formulation is extremely sparse compared with conventional formulations, which brings 24x speed up on quadratic solver. We also propose a wire linearization technique that transform quadratic star model into HPWL exactly. The overall runtime of our tool is close to the fastest placement tool in existing literature and significantly better than others. And meanwhile, we obtain competitive wire length results to the best-known ones. The average total wire length is 2.2% higher than mPL6, 0.2%, 3.1 %, and 9.1 % better than FastPlace3.0, APlace2.0, and Capo10.2 respectively.

**5) THE DISTRIBUTED GENERATOR PLACEMENT AND SIZING TEST SUITE AND ANALYSIS TOOL (2009 IEEE/PES POWER SYSTEMS CONFERENCE AND EXPOSITION)**

The concept of integrating small-scale embedded generators into the distribution system has been gaining increasing traction in the research community and with it has come a growing set of contemporary works from the field of artificial intelligence. Thus far however, the studies have failed to explore a diverse set of problems, offer scant comparison between approaches and often fail to use models based on real-world loads or generators. This work describes the new DG PAST SAT software, which is freely available, open to community input and features a rich repository of distribution system resources and a comprehensive test problem suite. When coupled with included analysis utilities, the DG PAST SAT system provides the tools and data for improved research quality in the distribution system planning phase.

# IDEATION & PROPOSED SOLUTION

# CHAPTER - 3

# IDEATION & PROPOSED SOLUTION

## 3.1 PROBLEM STATEMENT DEFINITION

| Problem Statement (PS) | I am (Customer) | I'm trying to | But | Because | Which Makes me feel |
|---|---|---|---|---|---|
| PS-1 | Educational Institutions | Enhance their students' chances of securing employment | Had difficulty identifying the most effective strategies for connecting students with job opportunities. | Manual processes and subjective assessments to manage placements. | Frustrated |
| PS-2 | Students and Alumni | Trying to make informed career choices and maximize their chances of securing desirable employment. | Difficult for them to make informed career choices. | Lacked access to data-driven insights about job markets, industry trends, and the specific skills. | Disappointed |
| PS-3 | Recruiters and Employers | To optimize their hiring processes and identify the best-suited candidates. | Time-consuming and often led to inefficient in the screening process. | Manually sift through a large number of resumes and applications. | Embittered |

## 3.2 EMPATHY MAP CANVAS


**Fig.No. 3.2 EMPATHY MAP**

## 3.3 IDEATION & BRAINSTORMING

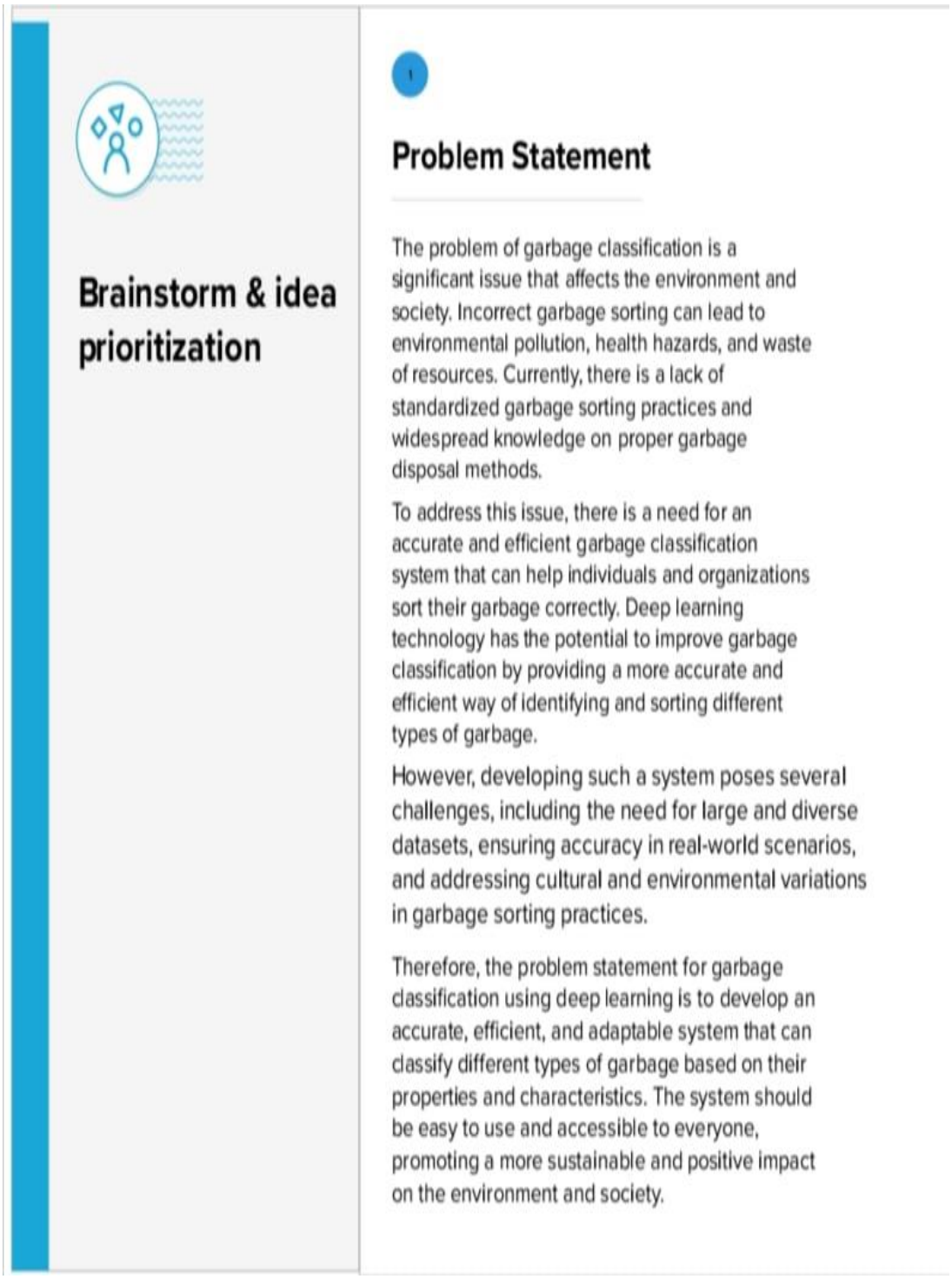



**Fig. No. 3.3.1 BRAINSTROMING & IDEA PRIORITIZATION**

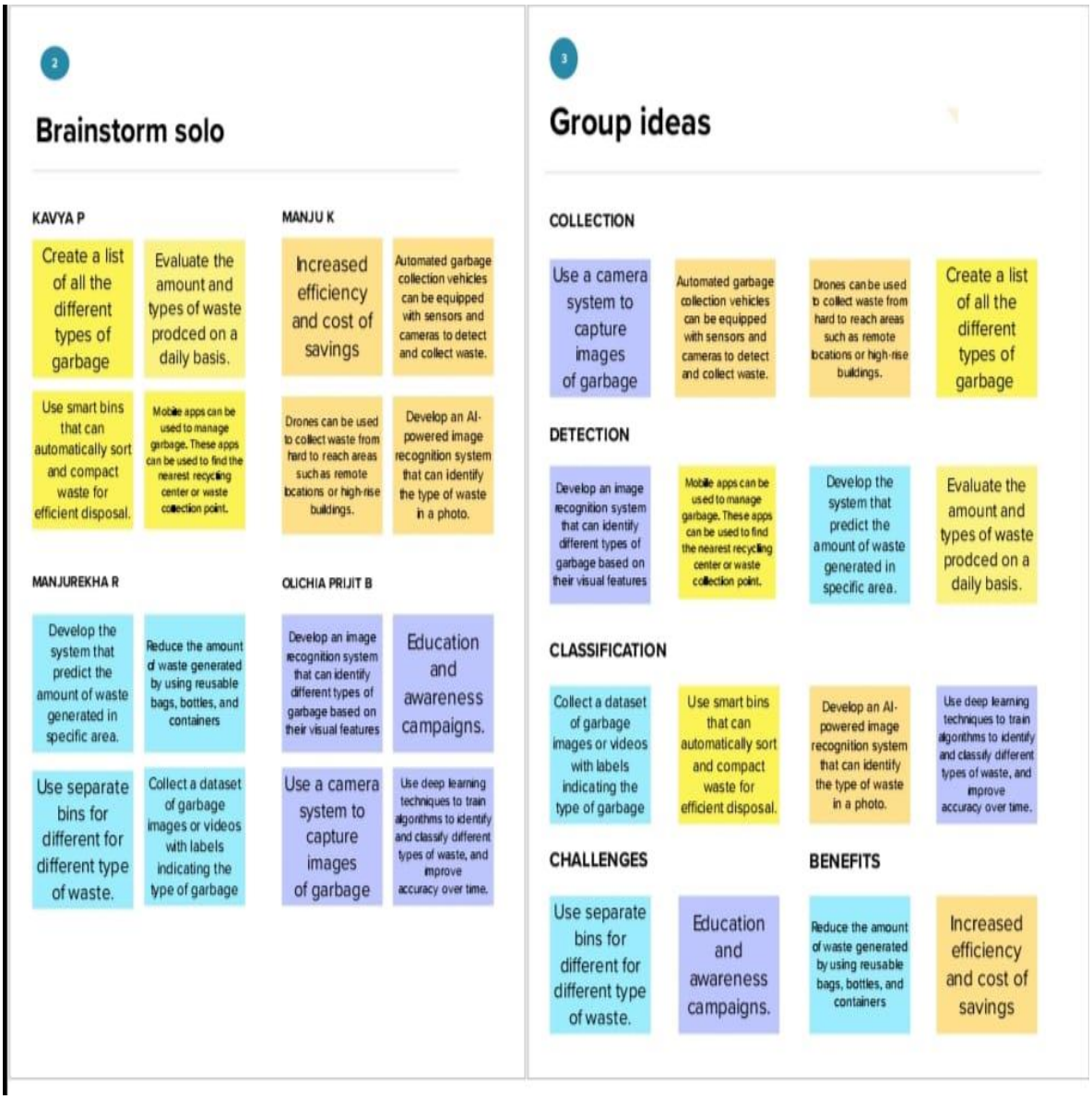



**Fig. No. 3.3.2 BRAINSTROMING & IDEA PRIORITIZATION**

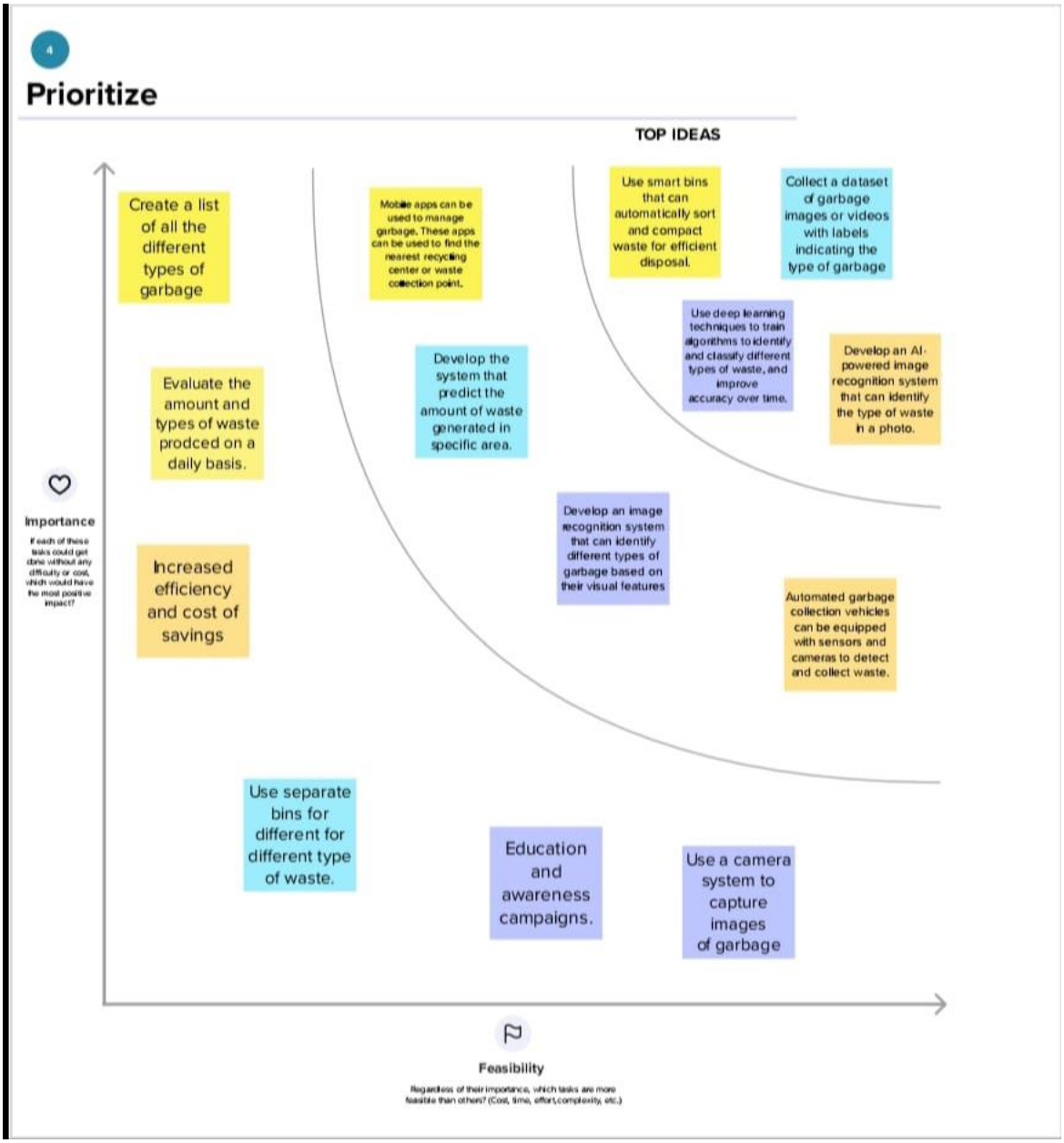



**Fig. No. 3.3.3 BRAINSTROMING & IDEA PRIORITIZATION**

## 3.4 PROPOSED SOLUTION

| S.No. | Parameter | Description |
|---|---|---|
| 1. | Problem Statement (Problem to be solved) | This tool will collect, analyze, and visualize data on student placements, employer engagement, and job market trends. It aims to enhance decision-making, increase placement rates, and improve the overall effectiveness of career services. |
| 2. | Idea / Solution description | This tool will optimize the recruitment process for universities and organizations. This tool will utilize AI and data analytics to match students with job opportunities, track application progress, and provide real-time insights into placement trends. |
| 3. | Novelty / Uniqueness | It combines academic performance, skills, and personal preferences, providing customized career recommendations. With real-time job market insights, it empowers students and institutions to make data-driven decisions, setting a new standard in placement success. |
| 4. | Social Impact / Customer Satisfaction | High customer satisfaction is achieved through accurate job recommendations, streamlined recruitment processes, and enhanced career opportunities, ultimately benefiting both job seekers and employers. |
| 5. | Business Model (Revenue Model) | Additional revenue can be generated through offering premium features, consulting services, and data insights to optimize placement strategies, ultimately enhancing employment outcomes for students. |
| 6. | Scalability of the Solution | It should efficiently process and analyze data, support more concurrent users, and adapt to growing data sources while maintaining performance and usability, ensuring it remains effective as the placement program expands. |

# REQUIREMENT ANALYSIS

# CHAPTER - 4

# REQUIREMENT ANALYSIS

## 4.1 FUNTIONAL REQUIREMENTS

| FR No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task) |
|---|---|---|
| FR-1 | **User Registration** | Registration through Form<br>Registration through Gmail<br>Registration through LinkedIN |
| FR-2 | **User Confirmation** | Confirmation via Email Confirmation via OTP |
| FR-3 | **Login** | Users must use valid credentials to log in to the system. |
| FR-4 | **Dataset** | Upload dataset into the analytics tool. |
| FR-5 | **Analysis** | The project entails collecting comprehensive data, analyzing and uncovering insights, and discovering patterns within the information for valuable insights. |
| FR-6 | **Create Dashboard** | Create Charts, Graphs, Tables, etc. |
| FR-7 | **Reporting** | The reporting feature empowers users with comprehensive control over their business operations. It gathers up-to-the-minute data and presents it through a user-friendly and intuitive interface. |

## 4.2 NON - FUNTIONAL REQUIREMENTS

| NFR No. | Non-Functional Requirement | Description |
|---|---|---|
| NFR-1 | **Usability** | Resource optimization makes it accessible to all. |
| NFR-2 | **Security** | Access to Dashboards/Templates is granted to anyone with the correct login credentials. |
| NFR-3 | **Reliability** | Templates are dependable since we upload and access them via the cloud. |
| NFR-4 | **Performance** | It exhibits top-tier performance and exceptional efficiency. |
| NFR-5 | **Availability** | It is accessible to anyone interested in sales data at no charge. |
| NFR-6 | **Scalability** | The dashboards and templates are highly scalable, allowing users to customize metrics at their discretion. |

# PROJECT DESIGN

# CHAPTER - 5
# PROJECT DESIGN

## 5.1 DATA FLOW DIAGRAMS

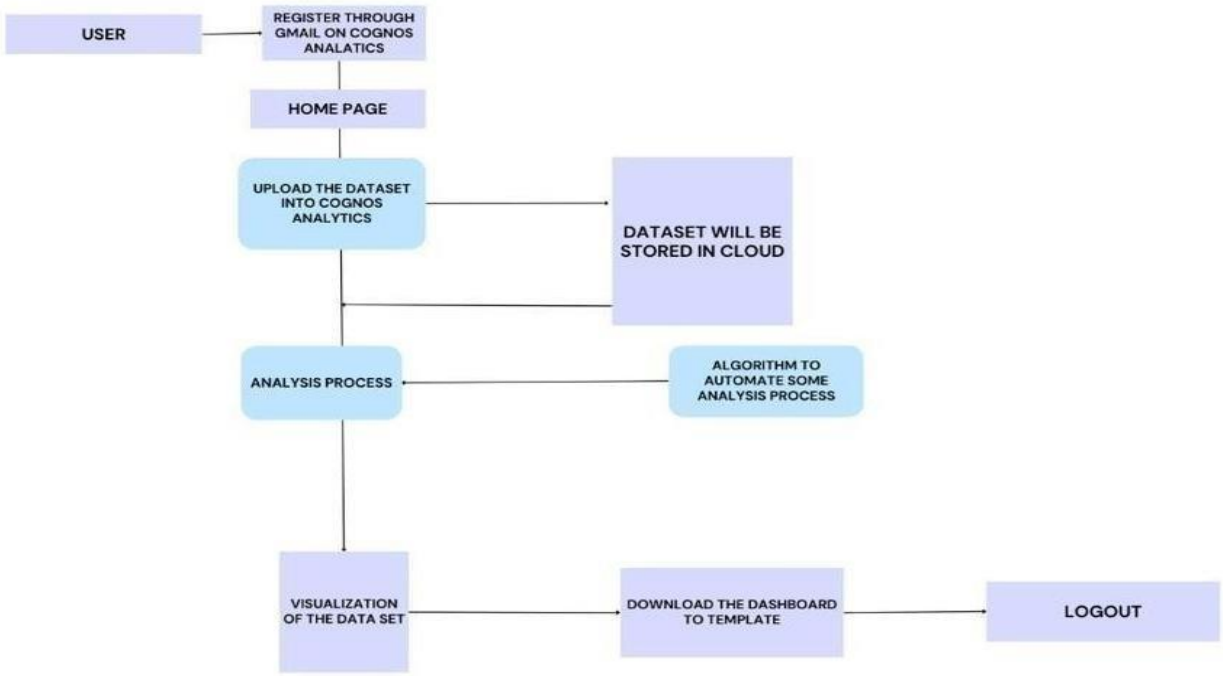



**Fig. No. 5.1 DATA FLOW DIAGRAMS**

## 5.2 SOLUTION & TECHNICAL ARCHITECTURE

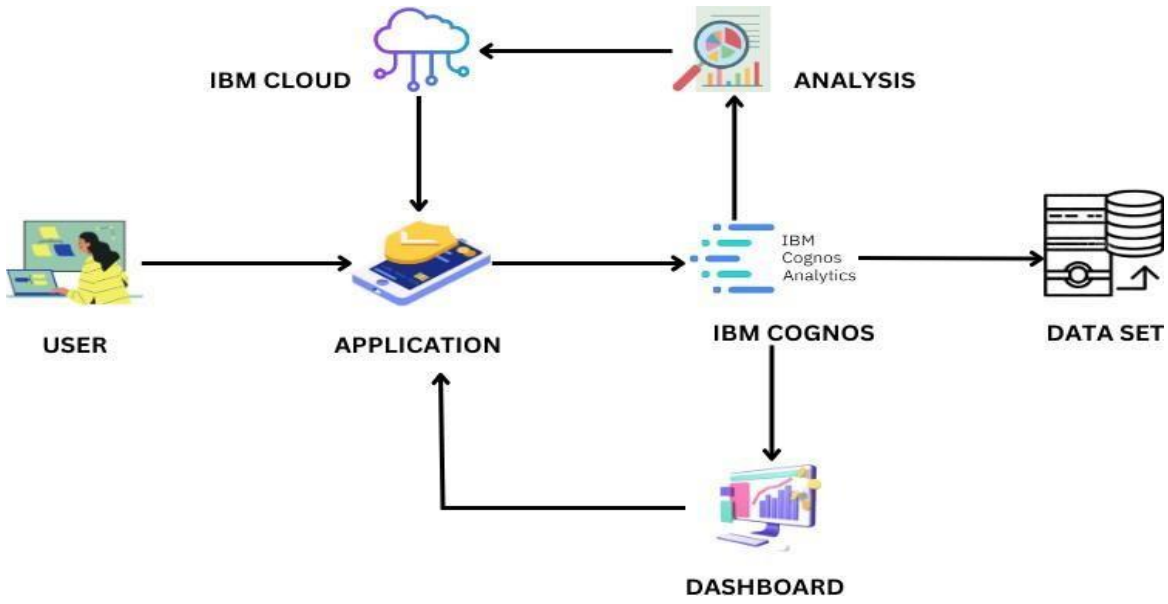



**Fig. No. 5.2. SOLUTION ARCHITECTURE**

## 5.3 USER STORIES

| User Type | Functional requirements | Release | User Number story | User Story | Acceptance Criteria | Priority |
|---|---|---|---|---|---|---|
| Customer (Web User) | User Authentication | Sprint 1 | USN-1 | As a student, I want to create an account using my university email .<br>As a placement officer, I want to manage user roles and permissions. | Users should be able to register with a valid university email address. | High |
| | Data Collection and Integration | Sprint 1 | USN-2 | As a user, I want to import student records from our university database. | The system should provide an option to import student records from a CSV file. | High |
| | Dashboard and Reporting | Sprint 2 | USN-3 | As a placement officer, I want to see a dashboard that displays the number of students placed, pending placements, and placement success rates. | | Low |
| | Student Profile Management | Sprint 2 | USN-4 | As a user, I want to update my academic records and skills in my profile and I want to add new | Students receive confirmation message successful update | Medium |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | students to the system. | | |
| | Job Posting and Management | Sprint 3 | USN-5 | As an employer, I want to post a job opportunity with a job description and application deadline. | | High |
| | Placement Process Workflow | Sprint 5 | USN-7 | As a student, I want to schedule interviews with potential employers. | Employers should have access to a list of selected candidates for a specific job posting. | Low |
| Admin | Login | Sprint 6 | USN-8 | As an admin, I can login to the application by entering username & password | | High |
| | Dashboard | Sprint 7 | USN-9 | As an admin, I can view the dashboard and other activities of the application | I can access the dashboard | High |

## CODING & SOLUTIONING

+

# CHAPTER - 6

# CODING & SOLUTIONING

## 6.1 FEATURE 1

## DASHBOARD

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <meta content="width=device-width, initial-scale=1.0" name="viewport">

  <title>PLACEMENT ANALYSIS Bootstrap Template - Index</title>
  <meta content="" name="description">
  <meta content="" name="keywords">
  <link href="static/assets/css/style.css" rel="stylesheet">
  </head>
<body>
    <!-- ======= Dashboard Section ======= -->
    <section id="dashboard" class="dashboard">
      <div class="container" data-aos="fade-up">
        <iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&amp;amp;pathRef=.my_folders%2FPROJECT%2FDashboard&amp;amp;closeWindowOnLastView=true&amp;amp;ui_appbar=false&amp;amp;ui_navbar=false&amp;amp;shareMode=embedded&amp;amp;action=view&amp;amp;mode=dashboard&amp;amp;subView=model000018b423606b2_00000000" width="320" height="200" frameborder="0"
```

```
gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>
      </div>
    </section><!-- End Dashboard Section -->
</body>
</html>
```

**6.2 FEATURE 2**

**REPORT**

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="utf-8">
  <meta content="width=device-width, initial-scale=1.0" name="viewport">

  <title>PLACEMENT ANALYSIS Bootstrap Template - Index</title>
  <meta content="" name="description">
  <meta content="" name="keywords">
  <link href="static/assets/css/style.css" rel="stylesheet">
  </head>
<body>
    <!-- ======= Your Report Section ======= -->
    <section id="your-report" class="your-report">
      <div class="container" data-aos="fade-up">
        <!-- Insert your embedded code here -->
        <!-- <iframe
src="https://us3.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2Fplaceme
nts%2Breport&amp;closeWindowOnLastView=true&amp;ui_appbar=false
```

&ui_navbar=false&shareMode=embedded&action=run&format=HTML&prompt=false" width="1200" height="1000" frameborder="0" gesture="media" allow="encrypted-media" allowfullscreen=""></iframe> -->

```
    <!-- <iframe
```

src="https://us3.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2FPROJECT%2FReport&closeWindowOnLastView=true&ui_appbar=false&ui_navbar=false&shareMode=embedded&action=run&prompt=false" width="320" height="200" frameborder="0" gesture="media" allow="encrypted-media" allowfullscreen=""></iframe> -->

```
    <iframe
```

src="https://us3.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2FPROJECT%2FReport&closeWindowOnLastView=true&ui_appbar=false&ui_navbar=false&shareMode=embedded&action=run&format=HTML&prompt=false" width="320" height="200" frameborder="0" gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>

```
    </div>
  </section><!-- End Your Report Section -->
</body>
</html>
```

**6.3 FEATURE 3**

**STORY**

```
<!DOCTYPE html>
<html lang="en">

<head>
```

```
  <meta charset="utf-8">
  <meta content="width=device-width, initial-scale=1.0" name="viewport">

  <title>PLACEMENT ANALYSIS Bootstrap Template - Index</title>
  <meta content="" name="description">
  <meta content="" name="keywords">
  <link href="static/assets/css/style.css" rel="stylesheet">
  </head>
<body>
    <!-- ======= Storyboard Section ======= -->
    <section id="storyboard" class="storyboard">
      <div class="container" data-aos="fade-up">
        <!-- <iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=story&amp;pathRef=.
my_folders%2FStory%253A%2Bplacements%2Banalysis&amp;closeWindo
wOnLastView=true&amp;ui_appbar=false&amp;ui_navbar=false&amp;shar
eMode=embedded&amp;action=view&amp;sceneId=-
1&amp;sceneTime=0" width="900" height="900" frameborder="0"
gesture="media" allow="encrypted-media" allowfullscreen=""></iframe> --
>
        <!-- <iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=story&amp;pathRef=.
my_folders%2FAss%2B2%2FNew%2Bstory%2B2&amp;closeWindowOnL
astView=true&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareMod
e=embedded&amp;action=view&amp;sceneId=model0000018af1dda407_00
000000&amp;sceneTime=0" width="320" height="200" frameborder="0"
gesture="media" allow="encrypted-media" allowfullscreen=""></iframe> --
>
```

```
        <iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=story&amp;pathRef=.
my_folders%2FPROJECT%2FStory&amp;closeWindowOnLastView=true
&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareMode=embedded
&amp;action=view&amp;sceneId=model0000018b424cdd2f_00000000&am
p;sceneTime=0" width="320" height="200" frameborder="0"
gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>
      </div>
    </section><!-- End Storyboard Section -->
</body>
</html>
```

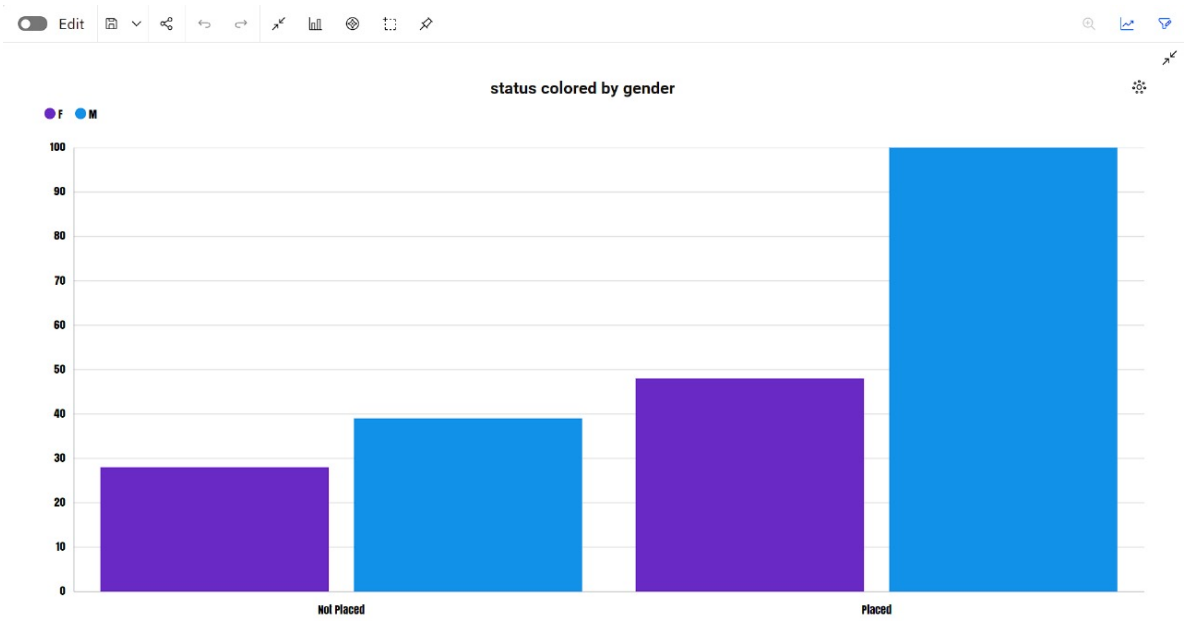
# RESULTS

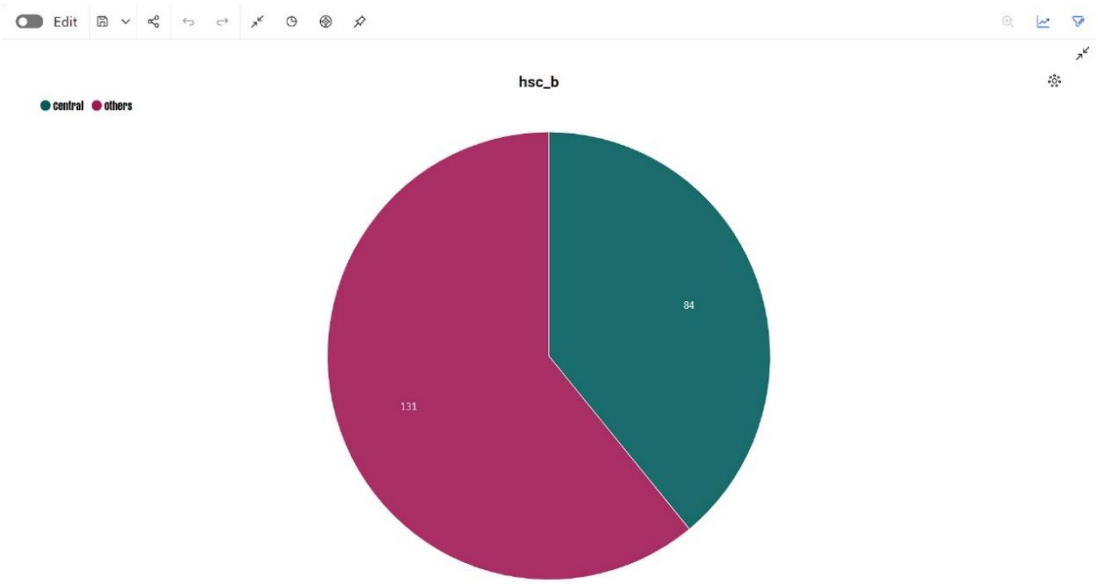
# CHAPTER - 7
# RESULTS

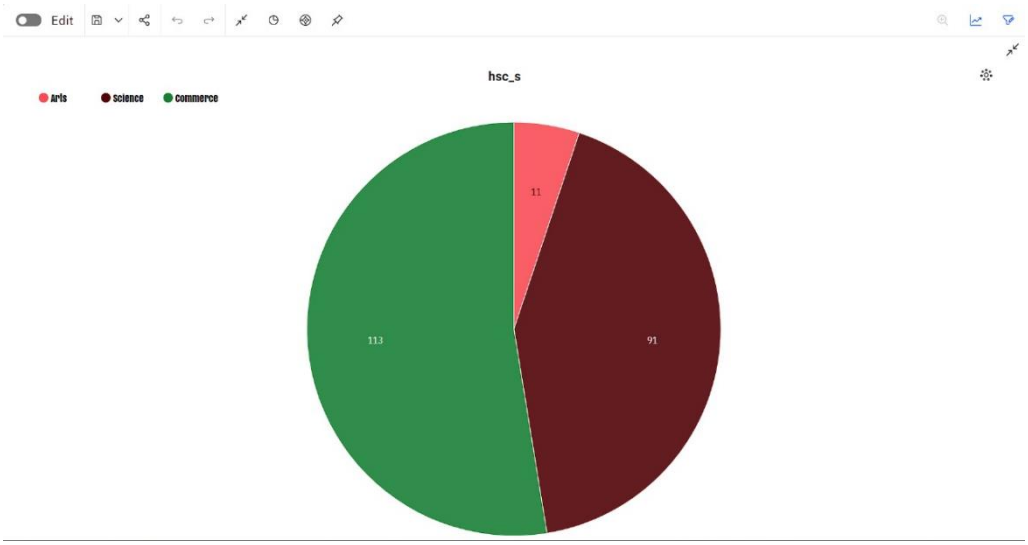
## 7.1 PERFORMANCE METRICS

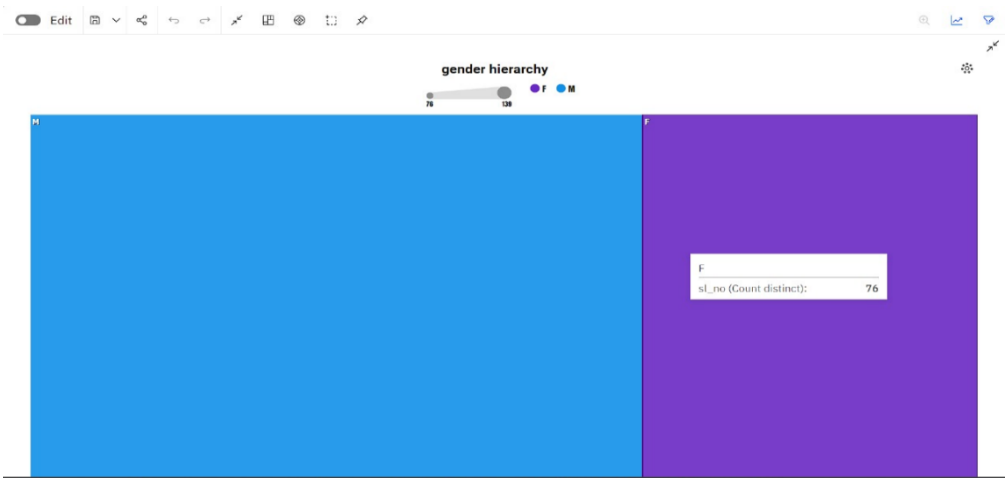
### 7.1.1 Utilization of Data Filters

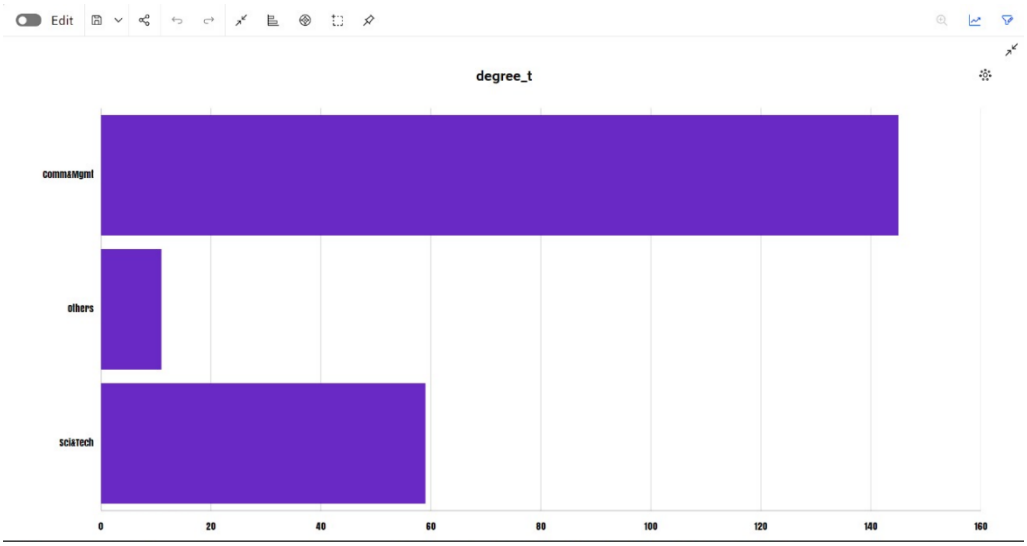
### Dashboard

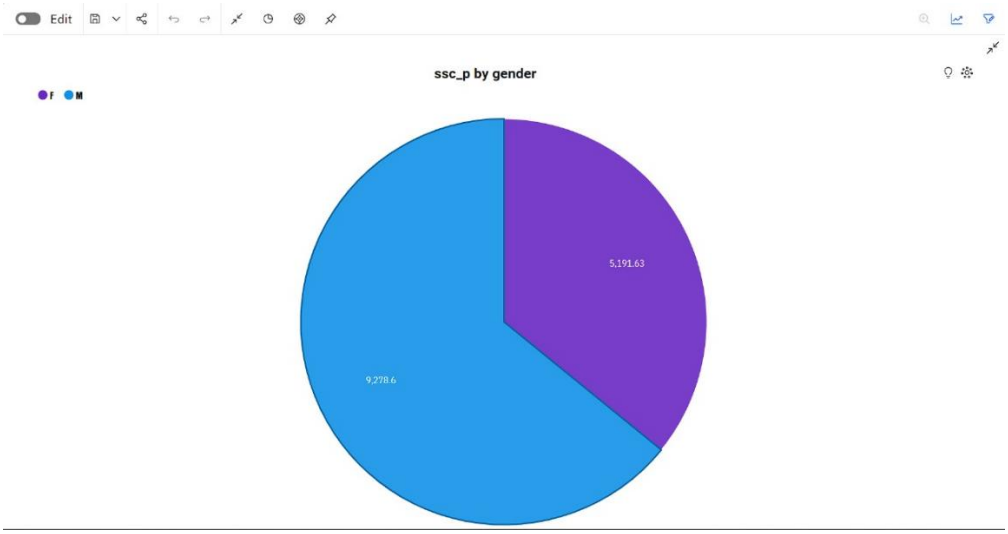


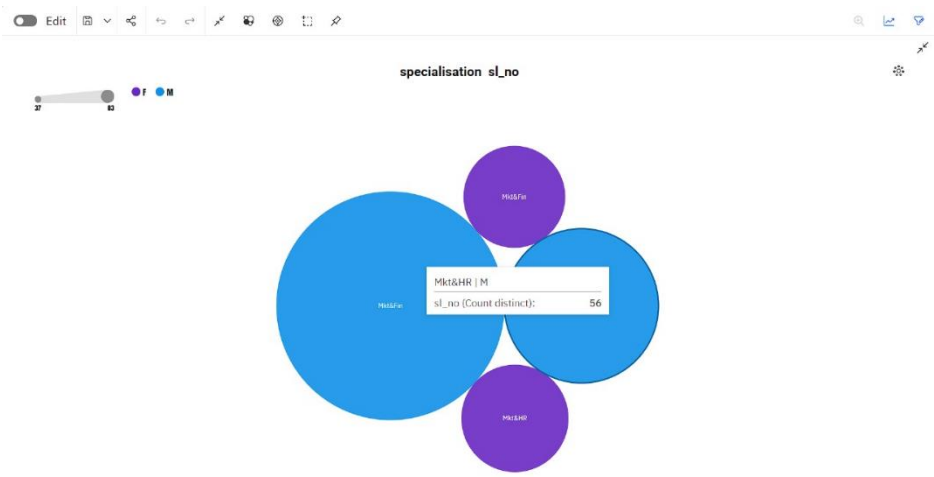




Edit
hsc_s
Arts
Science
Commerce
11
91
113

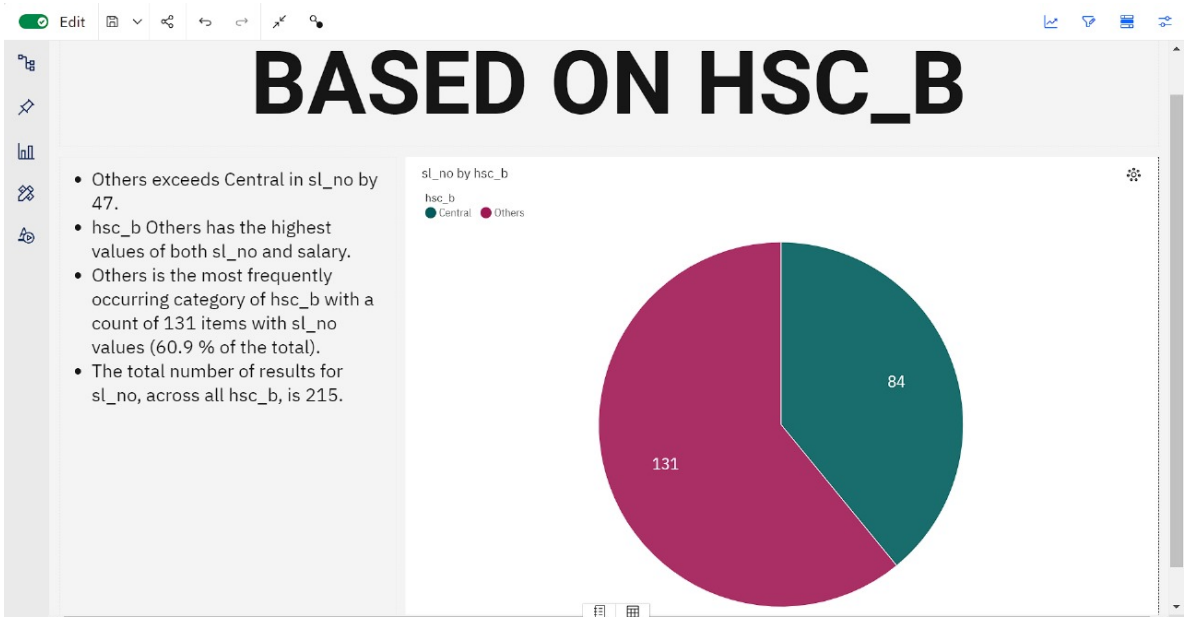

Edit
gender hierarchy
F
M
76
139
M
F
F
sl_no (Count distinct):
76

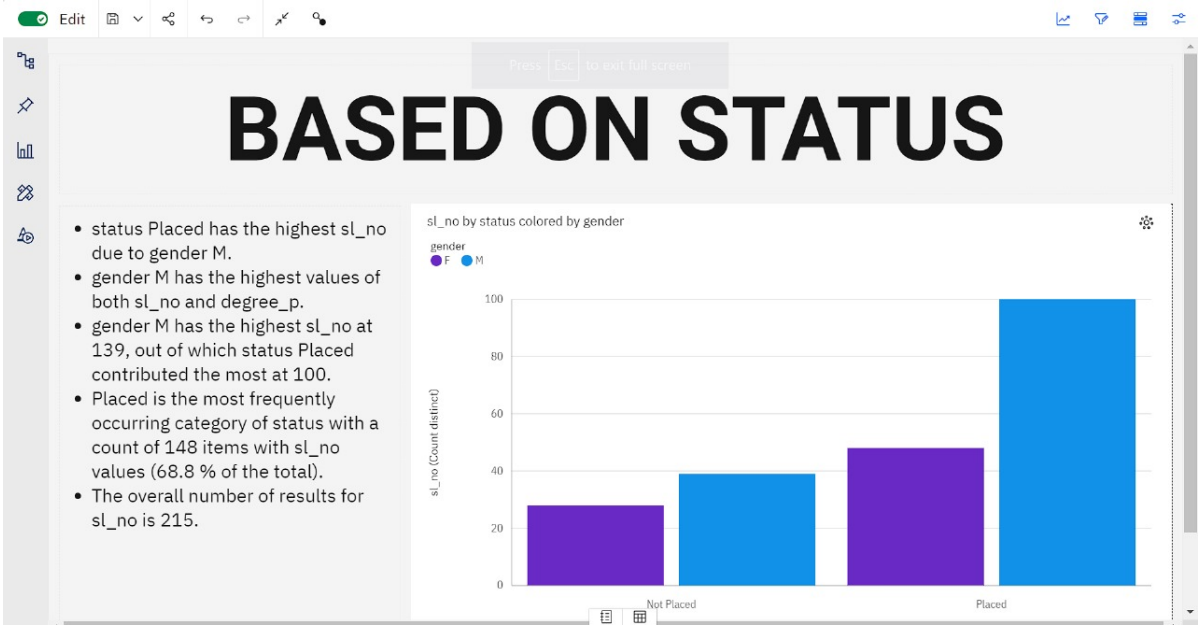

Edit
degree_t
Comm&Mgmt
Others
Sci&Tech
0
20
40
60
80
100
120
140
160

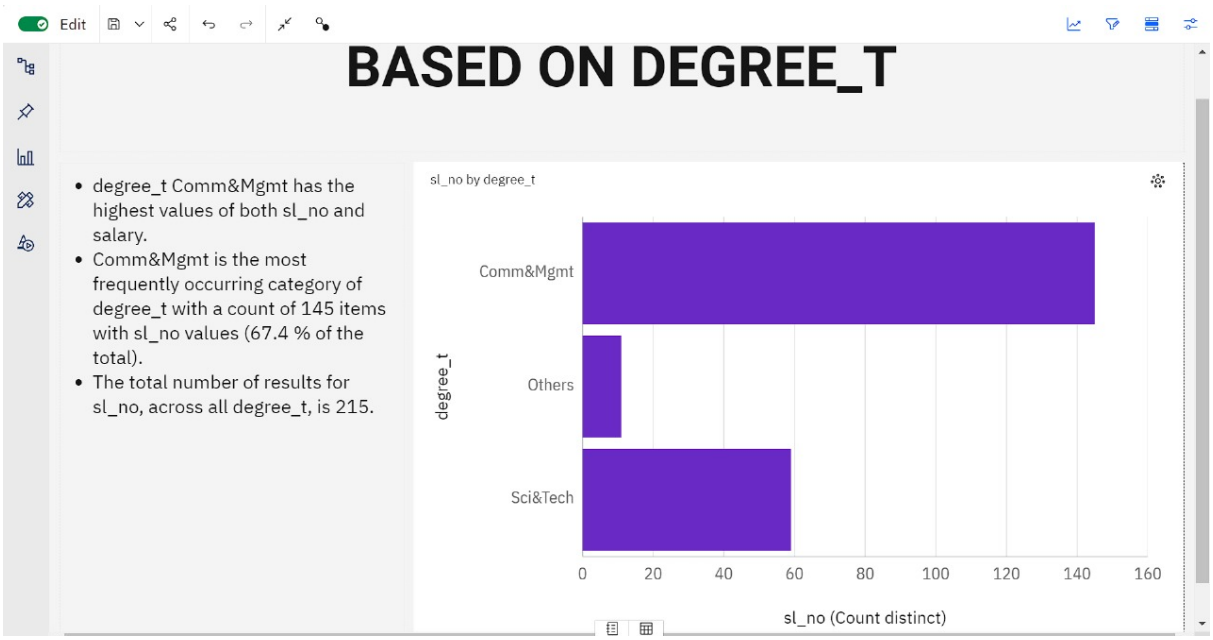

Edit
ssc_p by gender
F
M
5,191.63
9,278.6

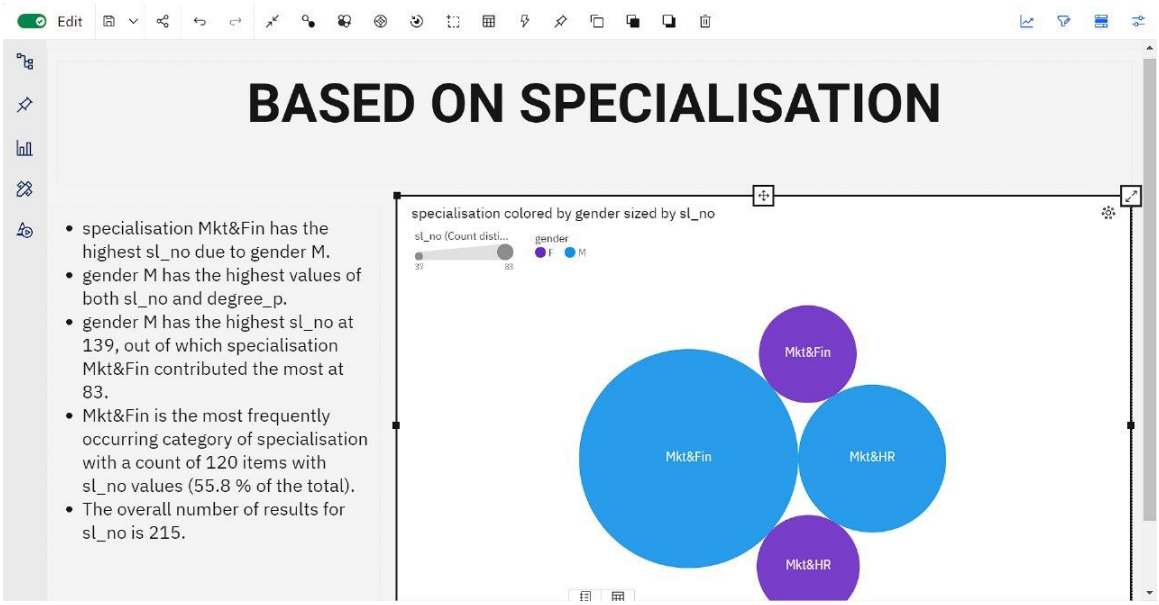

Edit
specialisation sl_no
F
M
Mkt&Fin
Mkt&HR | M
sl_no (Count distinct): 56
Mkt&HR

## Story

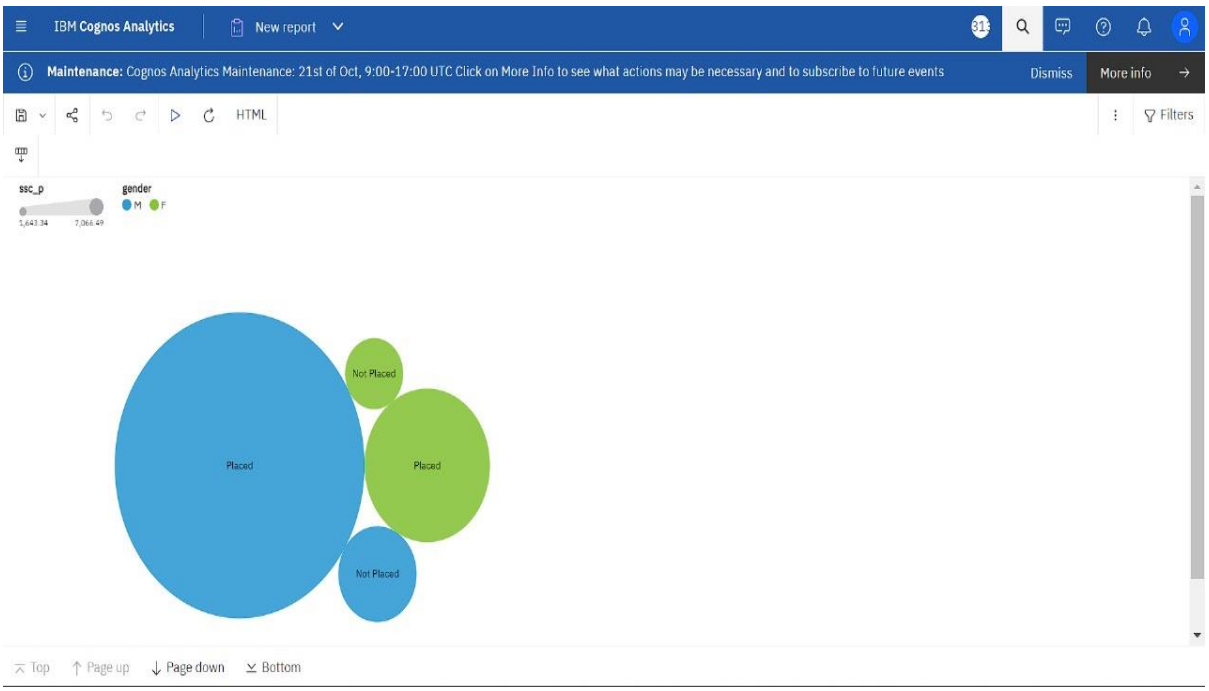

Edit
BASED ON HSC_B
Others exceeds Central in sl_no by 47.
hsc_b Others has the highest values of both sl_no and salary.
Others is the most frequently occurring category of hsc_b with a count of 131 items with sl_no values (60.9 % of the total).
The total number of results for sl_no, across all hsc_b, is 215.
sl_no by hsc_b
hsc_b
Central
Others
84
131


Edit
BASED ON STATUS
status Placed has the highest sl_no due to gender M.
gender M has the highest values of both sl_no and degree_p.
gender M has the highest sl_no at 139, out of which status Placed contributed the most at 100.
Placed is the most frequently occurring category of status with a count of 148 items with sl_no values (68.8 % of the total).
The overall number of results for sl_no is 215.
sl_no by status colored by gender
gender
F
M
sl_no (Count distinct)
100
80
60
40
20
0
Not Placed
Placed

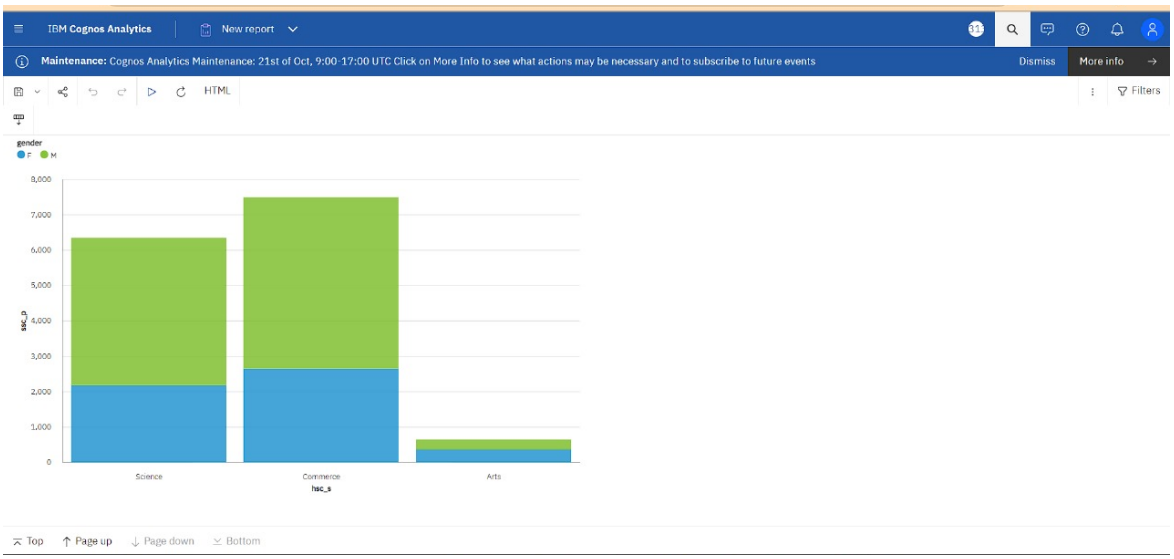

Edit
BASED ON DEGREE_T
degree_t Comm&Mgmt has the highest values of both sl_no and salary.
Comm&Mgmt is the most frequently occurring category of degree_t with a count of 145 items with sl_no values (67.4 % of the total).
The total number of results for sl_no, across all degree_t, is 215.
sl_no by degree_t
Comm&Mgmt
Others
Sci&Tech
degree_t
0
20
40
60
80
100
120
140
160
sl_no (Count distinct)


Edit
BASED ON SPECIALISATION
specialisation Mkt&Fin has the highest sl_no due to gender M.
gender M has the highest values of both sl_no and degree_p.
gender M has the highest sl_no at 139, out of which specialisation Mkt&Fin contributed the most at 83.
Mkt&Fin is the most frequently occurring category of specialisation with a count of 120 items with sl_no values (55.8 % of the total).
The overall number of results for sl_no is 215.
specialisation colored by gender sized by sl_no
sl_no (Count disti...
gender
F
M
Mkt&Fin
Mkt&Fin
Mkt&HR
Mkt&HR

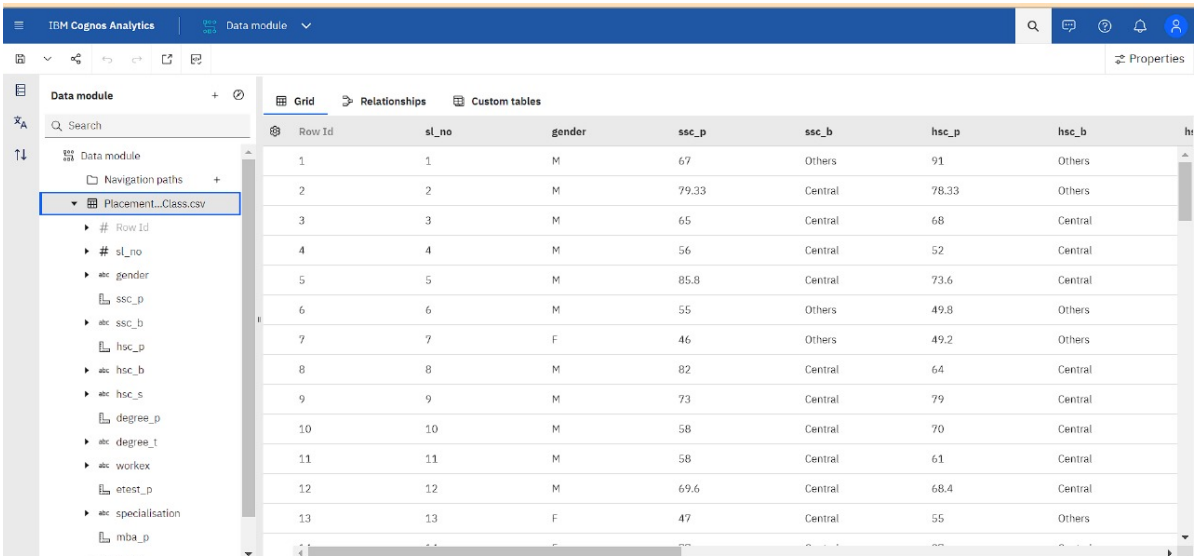
## Report


IBM Cognos Analytics
New report
Maintenance: Cognos Analytics Maintenance: 21st of Oct, 9:00-17:00 UTC Click on More Info to see what actions may be necessary and to subscribe to future events
Dismiss
More info
HTML
Filters
ssc_p
gender
M
F
Placed
Not Placed
Placed
Not Placed
Top
Page up
Page down
Bottom


IBM Cognos Analytics
New report
Maintenance: Cognos Analytics Maintenance: 21st of Oct, 9:00-17:00 UTC Click on More Info to see what actions may be necessary and to subscribe to future events
Dismiss
More info
HTML
Filters
degree_t
Sci&Tech
Comm&Mgmt
Others
706.5
4,200.17
9,563.56
specialisation
Mkt&Fin
Mkt&HR
6,194.83
8,273.4
Top
Page up
Page down
Bottom

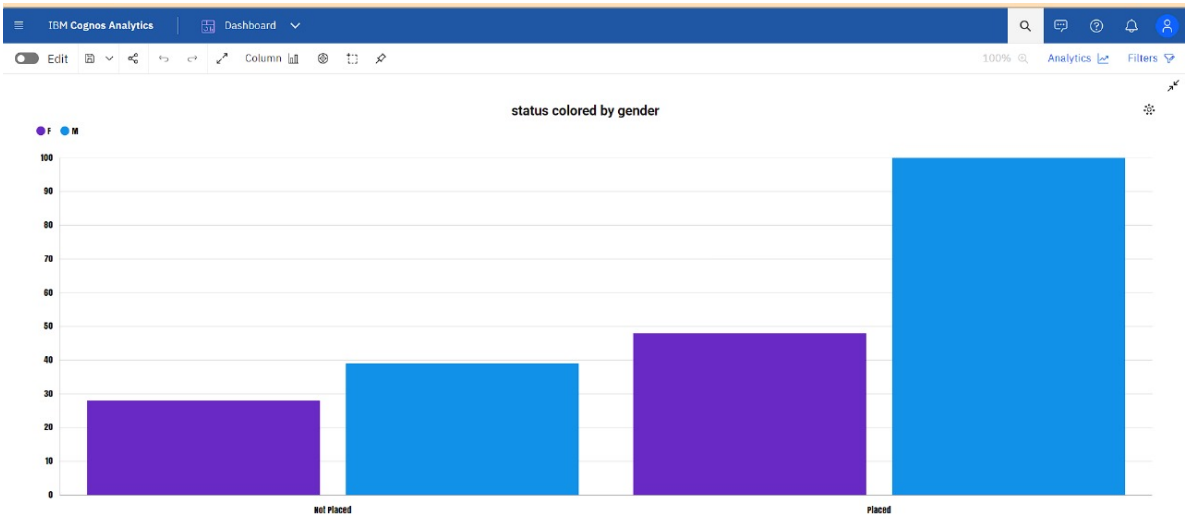

IBM Cognos Analytics
New report
Maintenance: Cognos Analytics Maintenance: 21st of Oct, 9:00-17:00 UTC Click on More Info to see what actions may be necessary and to subscribe to future events
Dismiss
More info
HTML
Filters
gender
F
M
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
ssc_p
Science
Commerce
Arts
hsc_s
Top
Page up
Page down
Bottom

## 7.1.2 No. of Calculation Fields

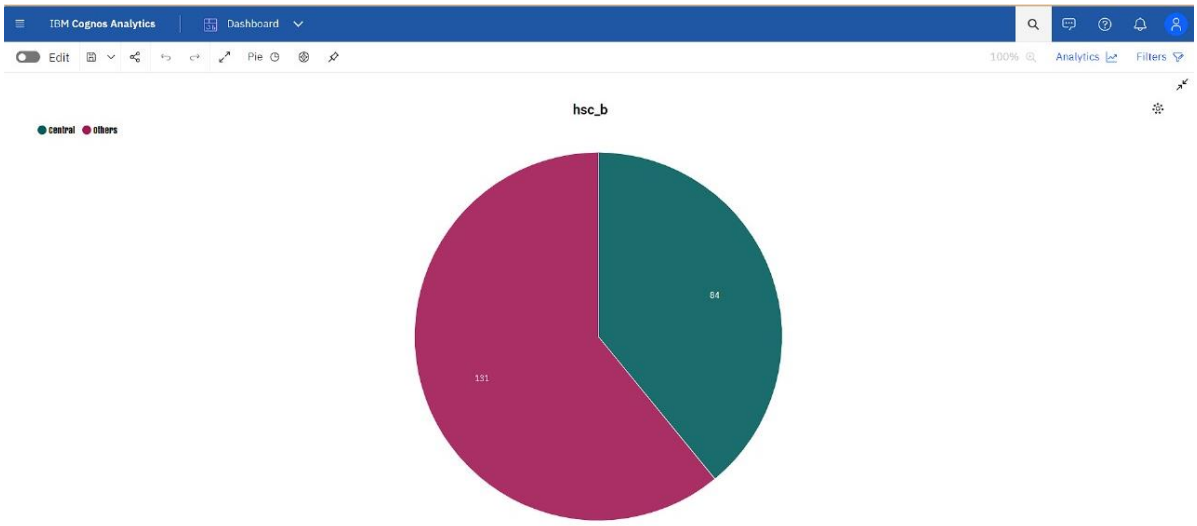



## 7.1.2 No. of Visualizations/Graphs

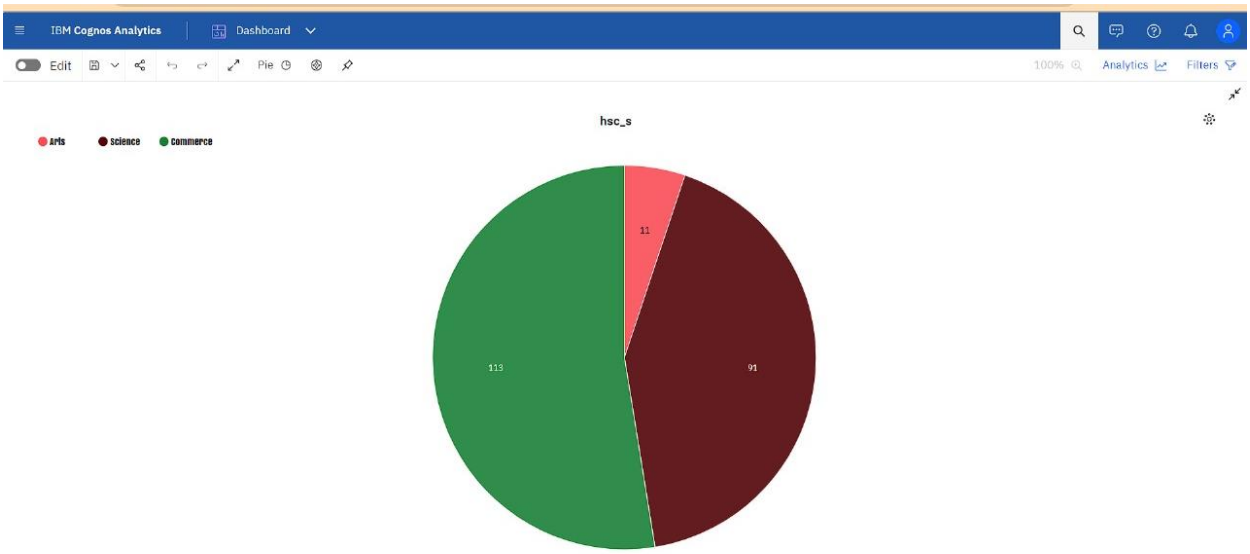
1.To calculate the status by gender



2.Count the Serial Number by hsc_b

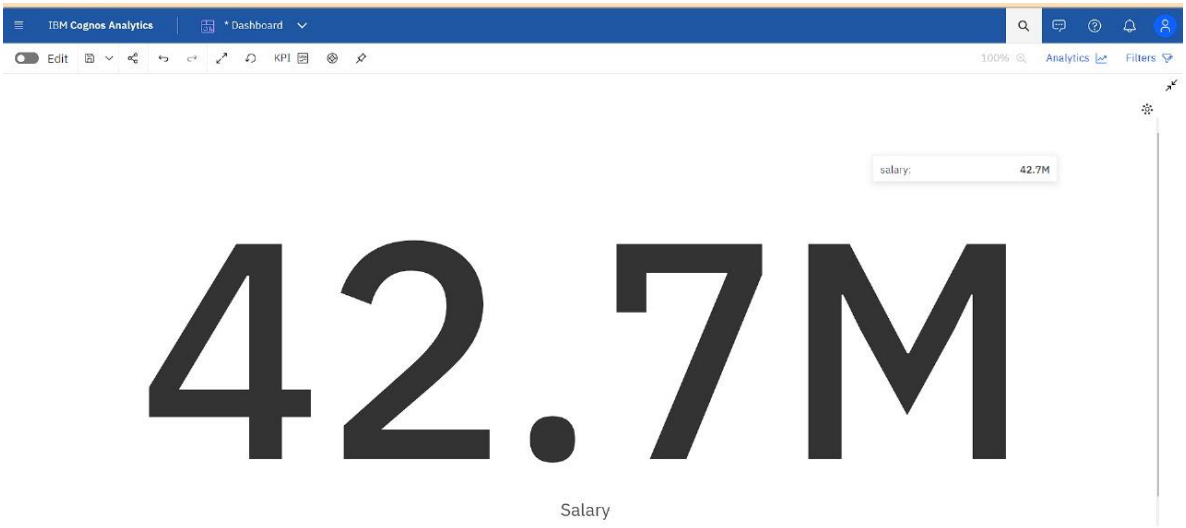



3.Count the Serial Number by hsc_s

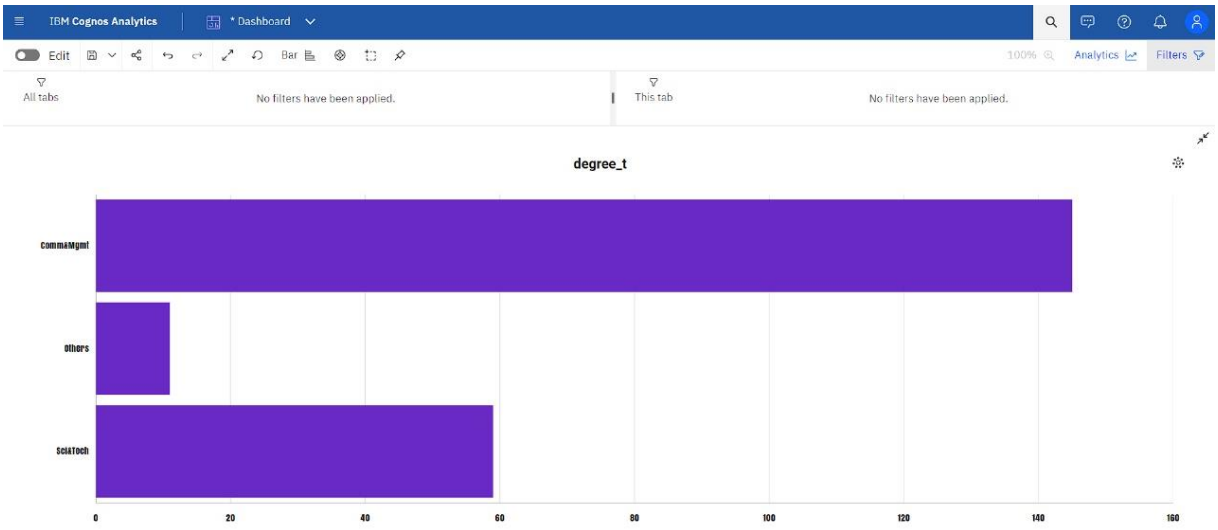



4.Used to Filterize all Visualization by Serial Number

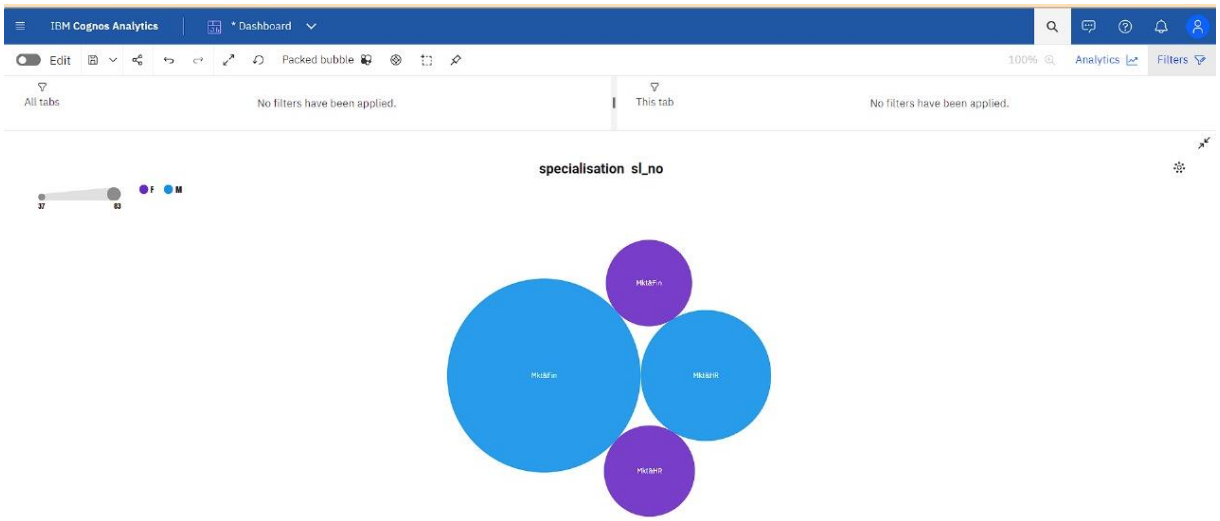
5. KPI is used to display the salary



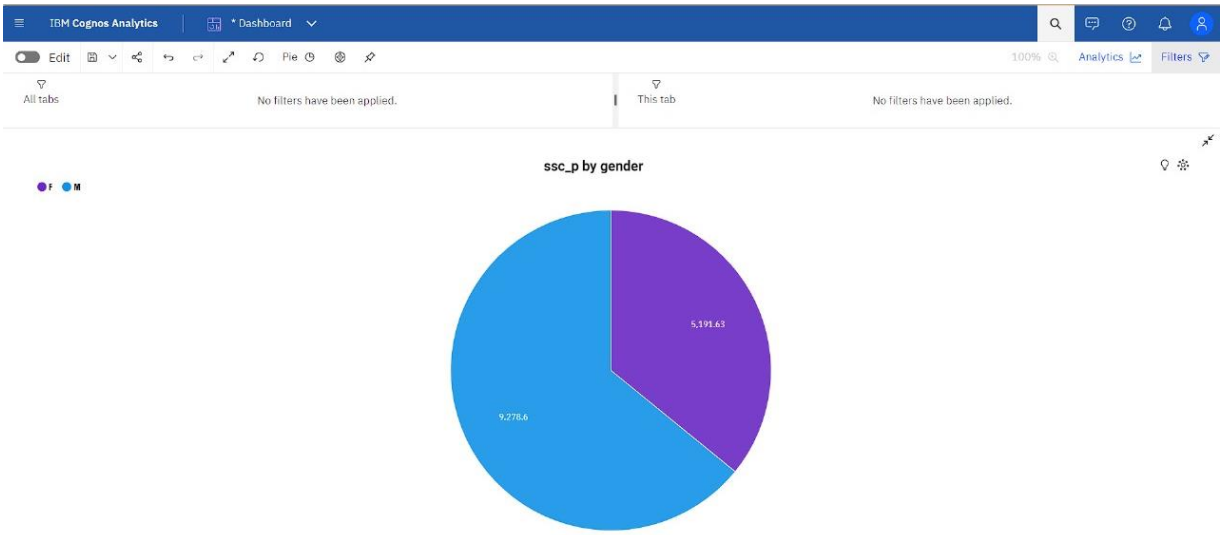

6 Used to calculate the degree_t



7. Calculate the Specialisation By Gender




8. Calculate the Ssc_P By Serial Number



# ADVANTAGES & DISADVANTAGE

# CHAPTER - 8

# ADVANTAGES & DISADVANTAGES

## ADVANTAGES:

**Informed Decision-Making:** By analysing the dataset, stakeholders such as students, educational institutions, and recruiters can make data-driven decisions.

**Enhanced Placement Rates:** The project can identify key factors contributing to successful placements, allowing educational institutions to adapt their curricula and career services to better prepare students for the job market, ultimately increasing placement rates.

**Improved Salary Negotiations:** Understanding the relationships between academic performance and salary offers empowers students to negotiate better compensation packages, resulting in improved financial outcomes.

**Efficient Resource Allocation:** Educational institutions can allocate resources more efficiently by focusing on programs and initiatives that positively impact placement outcomes, leading to cost savings and improved results.

**Optimized Recruitment Strategies:** Recruiters can refine their strategies based on data-driven insights, leading to better candidate selection and improved hiring efficiency.

**Continuous Improvement:** The insights gained can be used for ongoing monitoring and refinement of placement strategies, ensuring that they remain aligned with current market demands and student needs.

**DISADVANTAGES:**

**Data Limitations:** The effectiveness of the analysis heavily relies on the quality and completeness of the dataset. Inaccurate or incomplete data can lead to flawed conclusions.

**Privacy Concerns:** Handling sensitive information about students, such as demographics and work experience, raises privacy concerns. Proper data protection and ethical considerations are essential.

**Bias in Data:** If the dataset reflects pre-existing biases or disparities, the analysis may inadvertently perpetuate or reinforce these biases.

**Resource and Skill Requirements:** Conducting in-depth data analysis and predictive modeling demands expertise, time, and resources, which some institutions or individuals may lack.

**Complex Interpretation:** Complex statistical models and data analysis may be challenging for some stakeholders to understand and apply effectively.

**Overemphasis on Data:** Relying solely on data-driven decisions may overlook the importance of human judgment and qualitative considerations in the placement process.

**Generalization Challenges:** Findings may not be universally applicable, as they could be specific to the dataset or the context of the analysis.

**Potential Student Stress:** Students may experience added stress and anxiety if the analysis results in high expectations and pressure to achieve specific academic or placement goals.

**Data Security Risks:** Managing and storing large datasets carries inherent security risks, including the potential for data breaches or cyberattacks.

**Costs and Implementation Challenges:** Implementing recommendations, such as curriculum changes or recruitment strategies, may involve costs and logistical challenges that institutions need to address.

# CONCLUSION

# CHAPTER - 9
# CONCLUSION

In summary, this project underscores the pivotal role of data analysis and predictive modelling in unravelling the intricacies of campus placement outcomes. Through an in-depth exploration of factors like academic performance, demographics, and work experience, valuable insights have been unearthed that hold tremendous value for students, academic institutions, and recruiters. These insights have the potential to drive strategic decisions, leading to enhanced placement rates, more effective salary negotiations, and a fairer recruitment process.

However, it is imperative to acknowledge the inherent limitations and obstacles associated with data analysis, including issues related to data quality, privacy, and bias. To harness the full potential of data-driven insights, it is essential for stakeholders to place a high premium on data accuracy, safeguarding privacy, and ethical considerations throughout the entire process. Furthermore, it is vital to strike a balance by combining qualitative evaluations with quantitative analysis to ensure comprehensive decision-making that takes into account the welfare of all parties involved.

Ultimately, this project stresses the ongoing need to refine and adapt placement strategies to meet the ever-changing requirements of students and the dynamic job market. By embracing a data-informed and student-centric approach, educational institutions and recruiters can better equip students for successful careers, foster diversity and inclusion, and contribute to the continuous advancement of the education and employment sectors.

# FUTURE SCOPE

# CHAPTER – 10

# FUTURE SCOPE

The future of data-driven analysis in campus placement is poised for exciting advancements. As technology continues to evolve, we can expect increasingly sophisticated predictive modelling techniques and the integration of big data and artificial intelligence to provide even more precise and actionable insights. The scope extends to personalized career counselling for students, leveraging data to tailor guidance and support based on individual strengths and aspirations. Moreover, academic institutions can explore incorporating real-time labour market data to adapt their programs swiftly, ensuring alignment with the latest industry requirements. The future may also see the emergence of standardized data-sharing protocols and benchmarks for placement outcomes, enabling cross-institution comparisons and best practice identification. In summary, the future of data-driven campus placement analysis holds the potential to revolutionize how students are prepared for the job market, how institutions design their programs, and how recruiters identify the most suitable candidates, thereby enhancing the overall efficiency and effectiveness of the campus placement ecosystem.

# APPENDIX

# CHAPTER - 11

# APPENDIX

## A.1 SOURCE CODE

**Flask code**
**App.py**

```
rom flask import Flask, render_template

app = Flask(_name_)

@app.route("/")  #decoratar
def index():
   return render_template("index.html")

if _name_ == "_main_":
   app.run(debug=False,port = 5000 )
```

**ibm.html**

```
<header id="header" class="fixed-top ">
   <div class="container d-flex align-items-center justify-content-lg-
between">

     <h1 class="logo me-auto me-lg-0"><a
href="index.html">PLACEMENT ANALYSIS<span>.</span></a></h1>
     <!-- Uncomment below if you prefer to use an image logo -->
     <!-- <a href="index.html" class="logo me-auto me-lg-0"><img
src="Static/assets/img/logo.png" alt="" class="img-fluid"></a>-->
     <nav id="navbar" class="navbar order-last order-lg-0">
       <ul>
         <li><a class="nav-link scrollto active" href="#hero">Home</a></li>
         <li><a class="nav-link scrollto" href="#about">About</a></li>
         <li><a class="nav-link scrollto" href="#team">Team</a></li>
         <!-- <li><a class="nav-link scrollto"
href="#dashboard">DashBoard</a></li> -->
         <!-- <li><a class="nav-link scrollto "
href="#storyboard">StoryBoard</a></li> -->
         <li class="dropdown"><a href="#"><span>Analysis</span> <i
class="bi bi-chevron-down"></i></a>
```

```
          <ul>
            <li><a href="#exploration">Exploration</a></li>
            <li><a href="#dashboard">DashBoard</a></li>
            <li><a href="#your-report">Report</a></li>
            <li><a href="#storyboard">Story</a></li>
          </ul>
        </li>
        <li><a class="nav-link scrollto" href="#contact">Contact</a></li>
      </ul>
      <i class="bi bi-list mobile-nav-toggle"></i>
    </nav><!-- .navbar -->

    <a href="#about" class="get-started-btn scrollto">Get Started</a>

  </div>
 </header><!-- End Header -->
```

**dashboard.html**

```
<!DOCTYPE html>
<html lang="en">

<head>
 <meta charset="utf-8">
 <meta content="width=device-width, initial-scale=1.0" name="viewport">

 <title>PLACEMENT ANALYSIS Bootstrap Template - Index</title>
 <meta content="" name="description">
 <meta content="" name="keywords">
 <link href="static/assets/css/style.css" rel="stylesheet">
 </head>
<body>
  <!-- ======= Dashboard Section ======= -->
  <section id="dashboard" class="dashboard">
    <div class="container" data-aos="fade-up">
      <iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&amp;path
Ref=.my_folders%2FPROJECT%2FDashboard&amp;closeWindowOnLast
mbedded&amp;action=view&amp;mode=dashboard&amp;subView=model0
000018b423606b2_00000000" width="320" height="200" frameborder="0"
gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>
    </div>
  </section><!-- End Dashboard Section -->
```

```
</body>
</html>
```

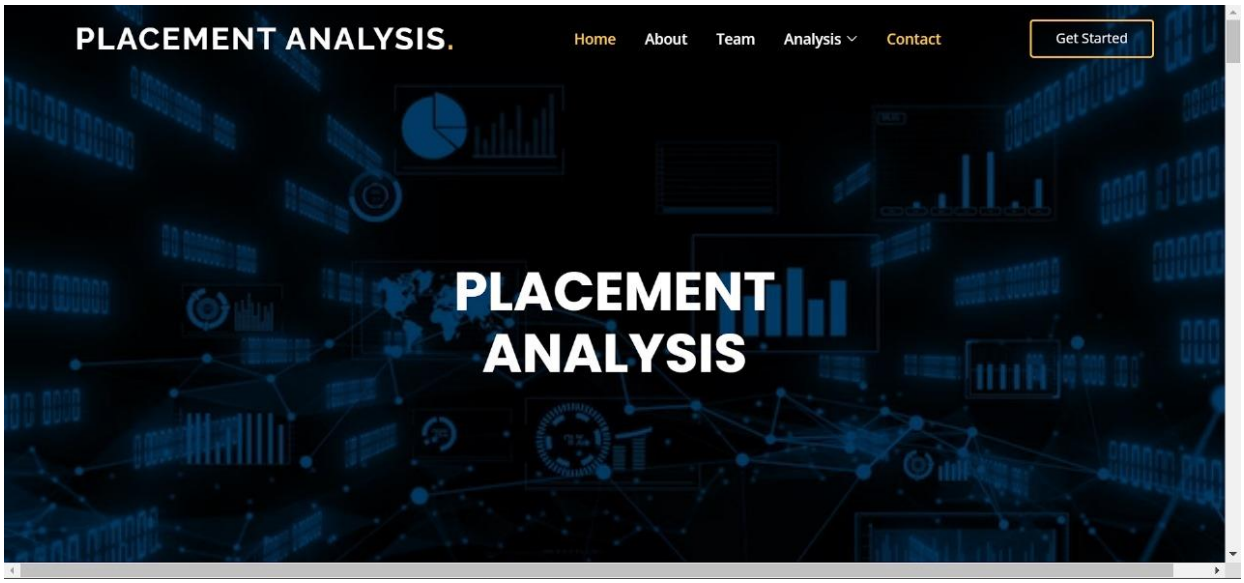
**story.html**

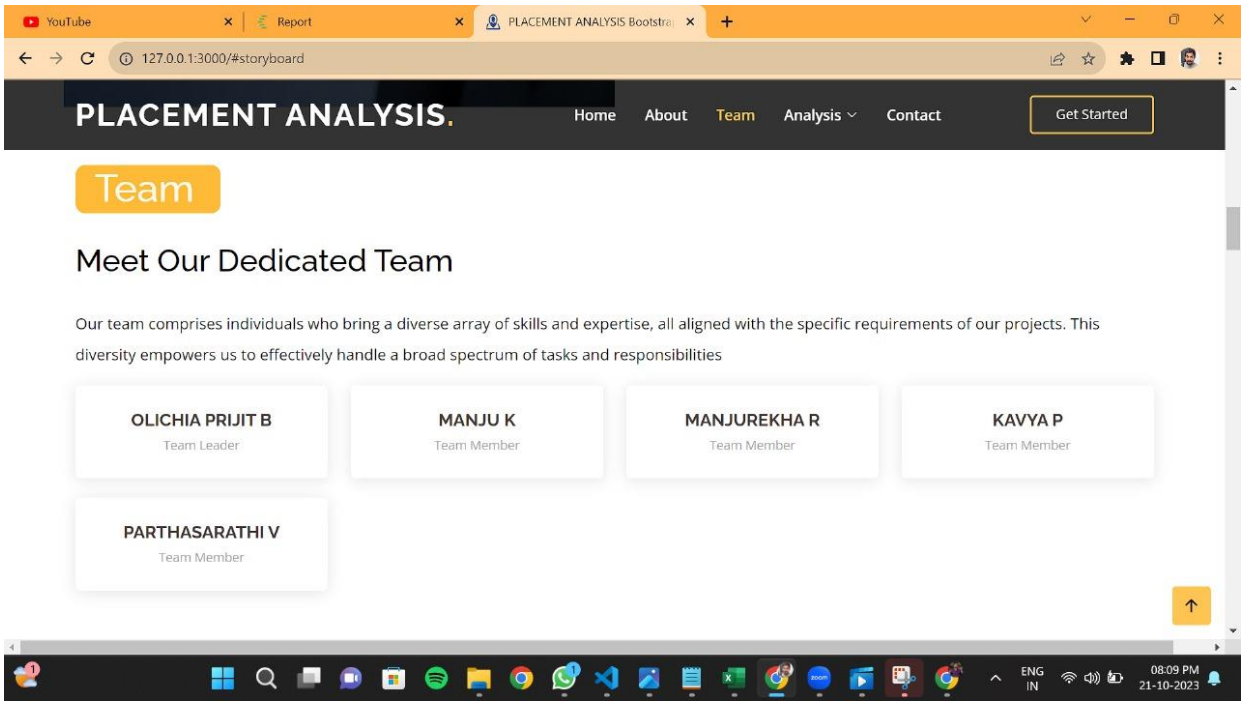
```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="utf-8">
  <meta content="width=device-width, initial-scale=1.0" name="viewport">

  <title>PLACEMENT ANALYSIS Bootstrap Template - Index</title>
  <meta content="" name="description">
  <meta content="" name="keywords">
  <link href="static/assets/css/style.css" rel="stylesheet">
  </head>
<body>
    <!-- ======= Storyboard Section ======= -->
    <section id="storyboard" class="storyboard">
      <div class="container" data-aos="fade-up">
        <!-- <iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=story&amp;pathRef=.
my_folders%2FStory%253A%1&amp;sceneTime=0" width="900"
height="900" frameborder="0" gesture="media" allow="encrypted-media"
allowfullscreen=""></iframe> -->
        <!-- <iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=story&amp;pathRef=.
my_folders%2FAss%2B2%2FNew%2Bstory%2B2&amp;=embedded&amp;
action=view&amp;sceneId=model0000018af1dda407_00000000&amp;scen
eTime=0" width="320" height="200" frameborder="0" gesture="media"
allow="encrypted-media" allowfullscreen=""></iframe> -->
        <iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=story&amp;pathRef=.
my_folders%2FPROJECT%2FStory&amp; 00000000&amp;sceneTime=0"
width="320" height="200" frameborder="0" gesture="media"
allow="encrypted-media" allowfullscreen=""></iframe>
      </div>
    </section><!-- End Storyboard Section -->
</body>
</html>
```

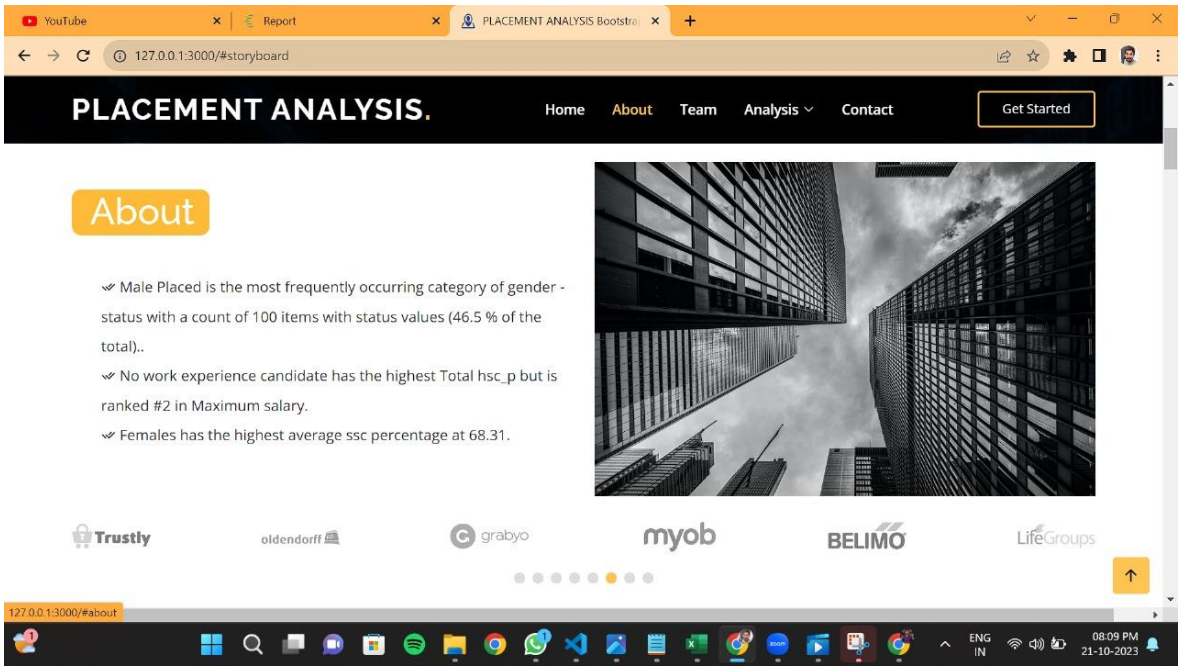
**report.html**

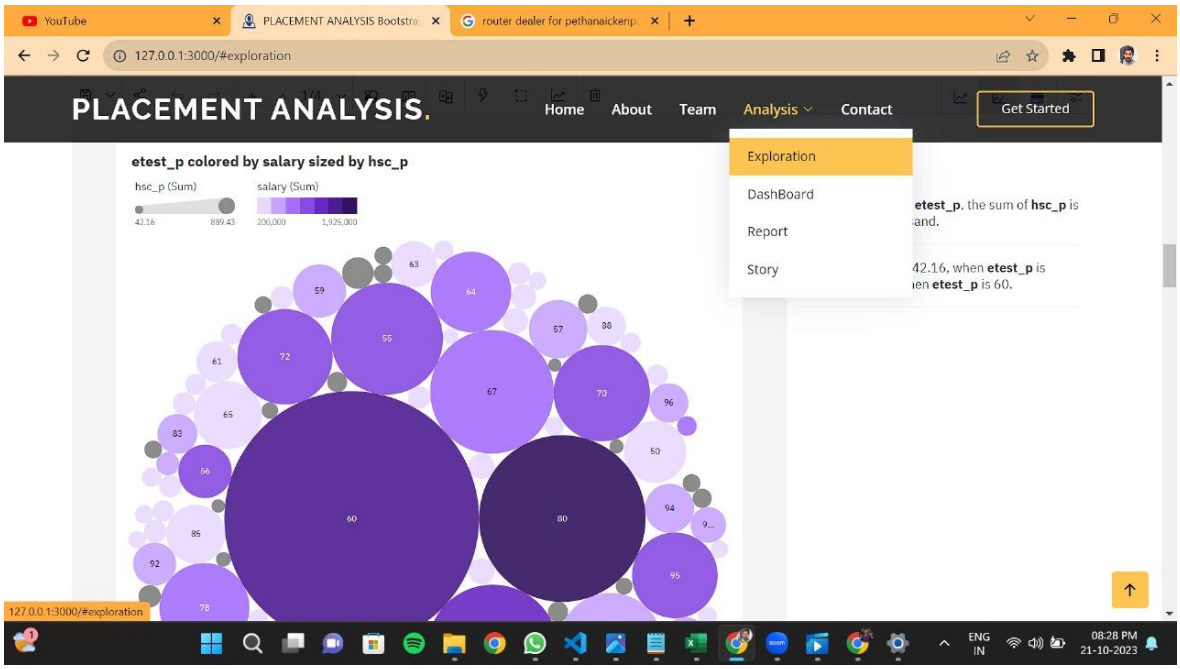
```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="utf-8">
  <meta content="width=device-width, initial-scale=1.0" name="viewport">

  <title>PLACEMENT ANALYSIS Bootstrap Template - Index</title>
  <meta content="" name="description">
  <meta content="" name="keywords">
  <link href="static/assets/css/style.css" rel="stylesheet">
  </head>
<body>
   <!-- ======= Your Report Section ======= -->
   <section id="your-report" class="your-report">
     <div class="container" data-aos="fade-up">
       <!-- Insert your embedded code here -->
       <!-- <iframe
src="https://us3.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2Fplacements%2Breport&amp;closeWindowOnLastView= width="1200"
height="1000" frameborder="0" gesture="media" allow="encrypted-media"
allowfullscreen=""></iframe> -->
       <!-- <iframe
src="https://us3.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2FPROJECT%2FReport&amp;closeWindowOnLastView=true&amp;ui_appbar =false"
width="320" height="200" frameborder="0" gesture="media"
allow="encrypted-media" allowfullscreen=""></iframe> -->
       <iframe
src="https://us3.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2FPROJECT%2FReport&amp;closeWindowOnLastView=true&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareMode=embedded&amp;action=run&amp;format=HTML&amp;prompt=false" width="320" height="200"
frameborder="0" gesture="media" allow="encrypted-media"
allowfullscreen=""></iframe>
     </div>
   </section><!-- End Your Report Section -->
</body>
</html>
```

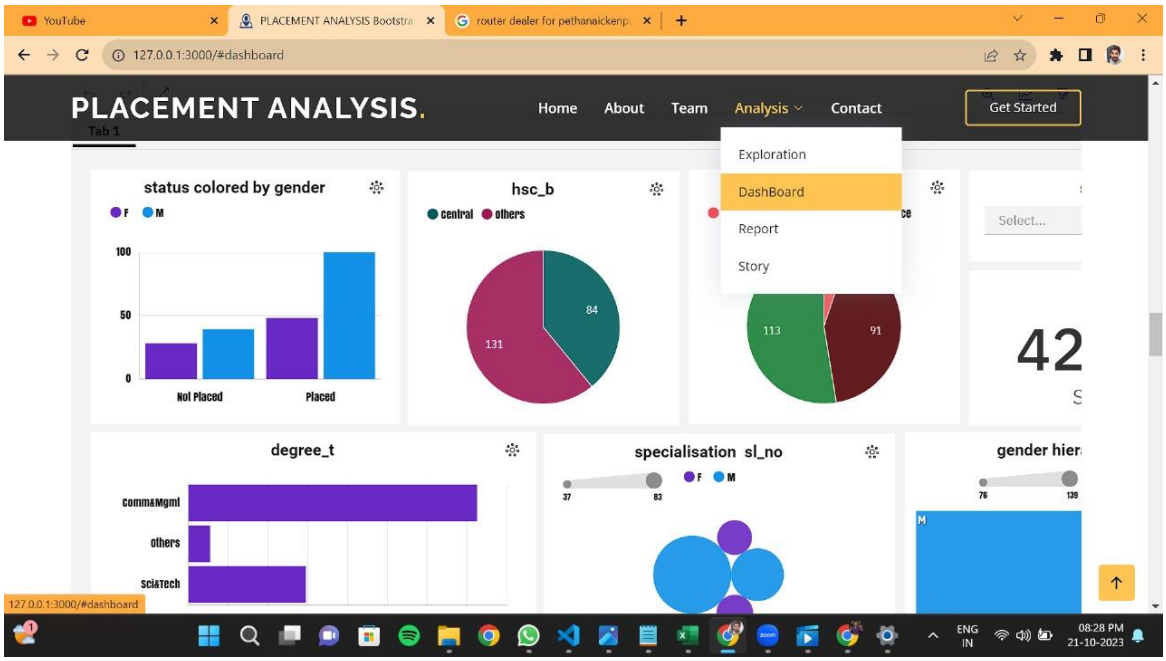
## A.2 SCREEN SHOT

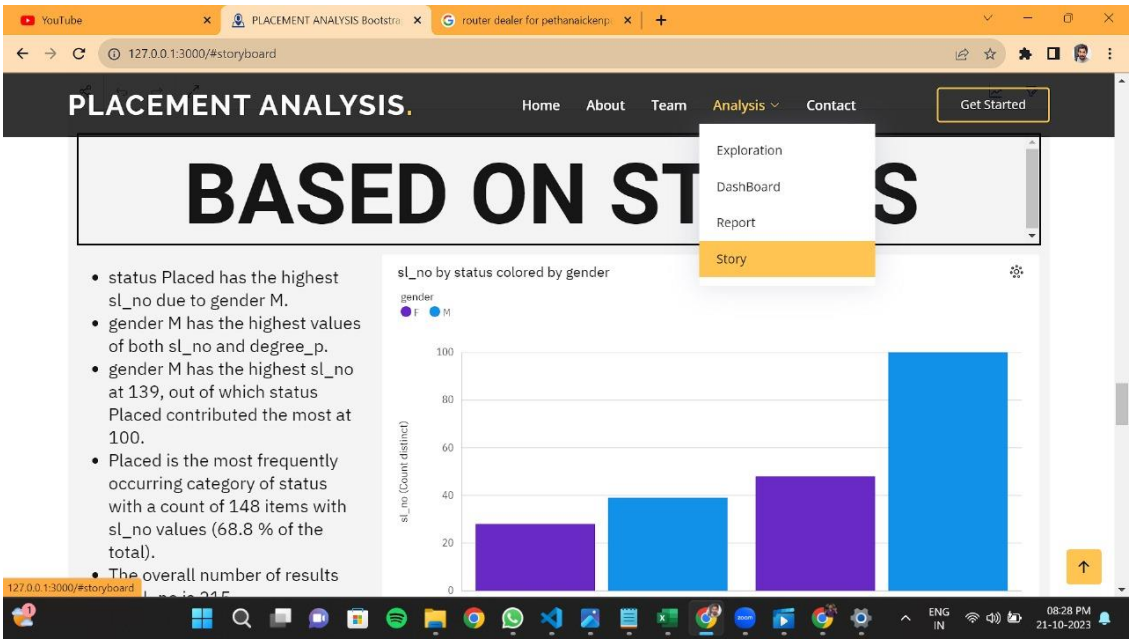


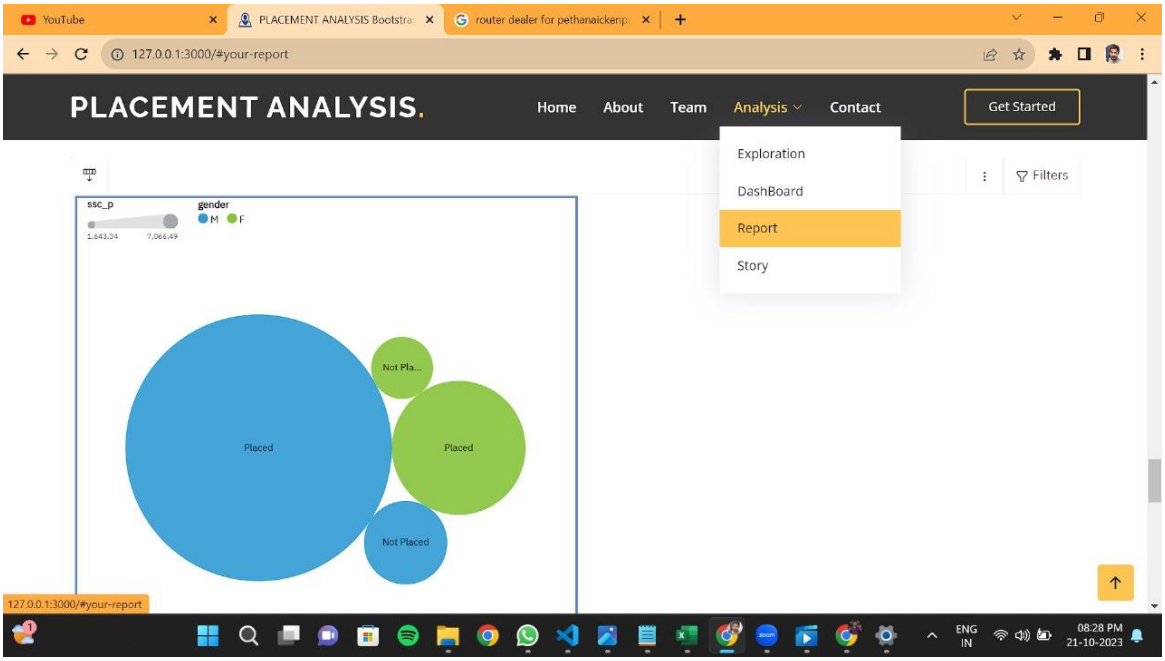



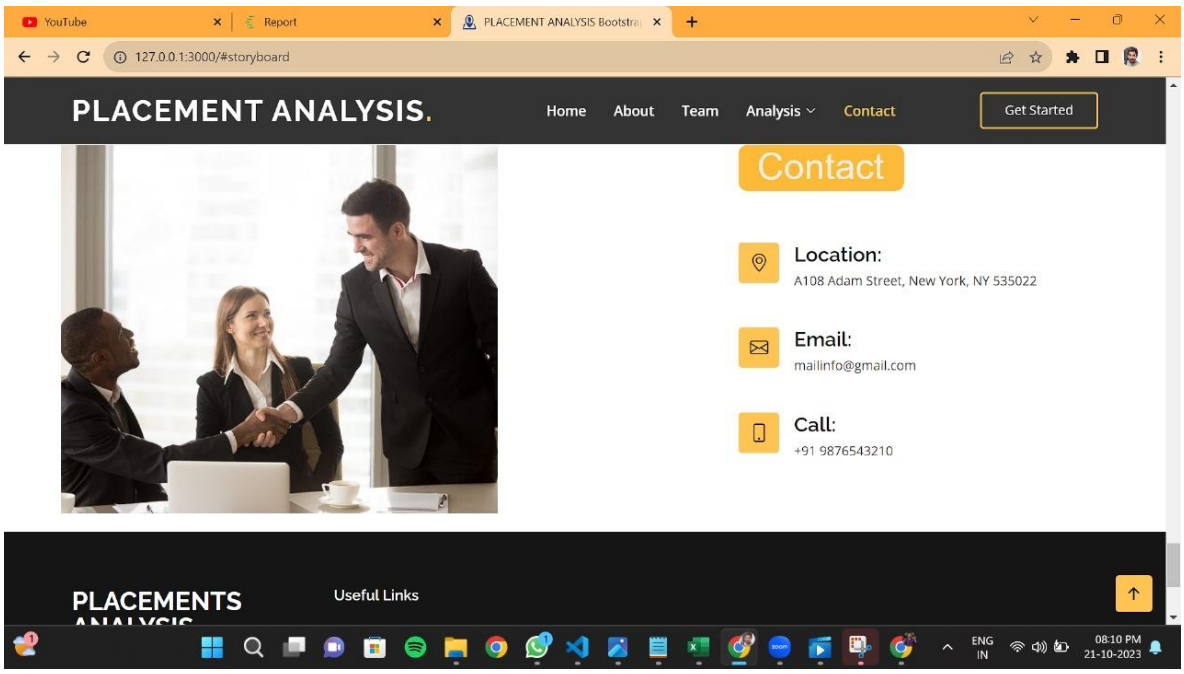

YouTube
Report
PLACEMENT ANALYSIS Bootstra
127.0.0.1:3000/#storyboard
PLACEMENT ANALYSIS.
Home
About
Team
Analysis
Contact
Get Started
About
Male Placed is the most frequently occurring category of gender - status with a count of 100 items with status values (46.5 % of the total)..
No work experience candidate has the highest Total hsc_p but is ranked #2 in Maximum salary.
Females has the highest average ssc percentage at 68.31.
Trustly
oldendorff
grabyo
myob
BELIMO
LifeGroups
127.0.0.1:3000/#about
ENG
IN
08:09 PM
21-10-2023


YouTube
PLACEMENT ANALYSIS Bootstra
router dealer for pethanaickenp
127.0.0.1:3000/#exploration
PLACEMENT ANALYSIS.
Home
About
Team
Analysis
Contact
Get Started
Exploration
DashBoard
Report
Story
etest_p colored by salary sized by hsc_p
hsc_p (Sum)
42.16
889.43
salary (Sum)
200,000
1,925,000
etest_p, the sum of hsc_p is
and.
42.16, when etest_p is
en etest_p is 60.
127.0.0.1:3000/#exploration
ENG
IN
08:28 PM
21-10-2023


PLACEMENT ANALYSIS.
Home
About
Team
Analysis
Contact
Get Started
Exploration
DashBoard
Report
Story
status colored by gender
F
M
100
50
0
Not Placed
Placed
hsc_b
central
others
84
131
113
91
Select...
42
degree_t
comm&Mgmt
Others
SciTech
specialisation sl_no
37
83
gender hier
76
139
127.0.0.1:3000/#dashboard
ENG
IN
08:28 PM
21-10-2023


PLACEMENT ANALYSIS.
Home
About
Team
Analysis
Contact
Get Started
Exploration
DashBoard
Report
Story
BASED ON ST S
status Placed has the highest sl_no due to gender M.
gender M has the highest values of both sl_no and degree_p.
gender M has the highest sl_no at 139, out of which status Placed contributed the most at 100.
Placed is the most frequently occurring category of status with a count of 148 items with sl_no values (68.8 % of the total).
The overall number of results
sl_no by status colored by gender
gender
F
M
sl_no (Count distinct)
100
80
60
40
20
0
127.0.0.1:3000/#storyboard
ENG
IN
08:28 PM
21-10-2023


PLACEMENT ANALYSIS.
Home
About
Team
Analysis
Contact
Get Started
Exploration
DashBoard
Report
Story
Filters
ssc_p
gender
M
F
Not Pla...
Placed
Placed
Not Placed
127.0.0.1:3000/#your-report


PLACEMENT ANALYSIS.
Home
About
Team
Analysis
Contact
Get Started
Contact
Location:
A108 Adam Street, New York, NY 535022
Email:
mailinfo@gmail.com
Call:
+91 9876543210
PLACEMENTS
Useful Links

## 11.2 GITHUB & PROJECT VIDEO DEMO LINK

**GITHUB LINK:**

https://github.com/OlichiaPrijit25/NaanMudhalvan_DAT_NM2023TMID02074.git

**PROJECT VIDEO DEMO LINK:**

https://drive.google.com/file/d/1jCOVSakOrsGNNWk_1iKmqRAlHQIbRlgA/view?usp=share_link

# REFERENCES

# CHAPTER – 12
# REFERENCES


1. 2017 International Conference on Energy, Communication, Data Analytics and Soft Computing (ICECDS)
2. 2007 Asia and South Pacific Design Automation Conference
3. 2021 5th International Conference on Computer, Communication and Signal Processing (ICCCSP)
4. 2008 Asia and South Pacific Design Automation Conference
5. 2009 IEEE/PES Power Systems Conference and Exposition.