

A Project Report on

DISSECTING THE DIGITAL LANDSCAPE:

A comprehensive Analysis of social media.

by

Team Leader: SANDHYA KARUNAKAR (20AT1A0564)

Student 1 POTHULA INDHU (20AT1A0552)

Student 2 EDIGA HARSHITH GOUD (20AT1A0546)

Student 3 EDIGA KASI VISWANATH (20AT1A0501)

Under the Guidance of

MRS.M. JAYA SUNITHA, MTech

Associate Professor



DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

**G. PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY
(Autonomous)**

(Approved by AICTE | NAAC Accreditation with 'A' Grade | Accredited by NBA (ECE, CSE, EEE, CE) |
Permanently Affiliated to JNTUA)

ABSTRACT

Social media platforms offer valuable information about customer behavior and interests. Without social media analysis, businesses may miss opportunities to understand their target audience and improve marketing effectiveness. This project provides a detailed analysis of linkedin platform covering topics like history, demographics, challenges, and opportunities. Additionally, the paper reviews research on social media's impact on higher education, with a focus on computing, and offers recommendations for future studies.

By harnessing social media data, businesses can gain insights that lead to better customer understanding and informed decision-making. The analysis of various platforms allows for a deeper understanding of their impact on communication and society. Moreover, the literature review highlights the need for further research on social media's effects on student learning and faculty perspectives in higher education.

Contents

Abstract	2
Contents	3
List of Figures and Tables	4
CHAPTER 1 INTRODUCTION	4
CHAPTER 2 LITERATURE REVIEW	5
CHAPTER 3 PROPOSED METHOD	6
CHAPTER 4 LINKEDIN DATASET ATTRIBUTES	7-8
CHAPTER 5 EXPERIMENTAL RESULTS OF THE LINKEDIN DATASET	9-12
• Data Visualization	
• DashBoard	
CHAPTER 6 DATASET IMPLEMENTATION BY USING MACHINE LEARNING ALGORITHM	13
CHAPTER 7 APPLICATIONS/ADVANTAGES	14
CHAPTER 8 CONCLUSIONS	15

LIST OF FIGURES AND TABLES

The database collected from IBM cogon's about the **DISSECTING THE DIGITAL LANDSCAPE: A Comprehensive Analysis of social media.**

CHAPTER 1

INTRODUCTION

Social media platform provides a wealth of information about customer behavior, preferences, and interests. Without social media analysis, businesses may miss out on opportunities to better understand their target audience and make data-driven decisions. Social media data provides valuable insights for a better understanding of Customers, Improved Marketing Effectiveness, and Competitive Analysis. Product and Services Development. This project provides a detailed and in-depth analysis of LINKEDIN platform

What is social media?

Social media is a type of internet platform or website that allows people to connect, share, and communicate with each other online. It enables users to post content, such as text, images, and videos, and interact with others through likes, comments, and messages. Examples of social media platforms include Facebook, Twitter, Instagram, and LinkedIn.

What are the benefits of using social media?

1. Networking Opportunities
2. Job Search and Internships
3. Showcase Skills and Projects
4. Join Engineering Groups and Communities
5. Follow Influential Engineers and Companies
6. Industry News and Insights

CHAPTER 2

LITERATURE REVIEW

In the digital age, businesses grapple with effectively utilizing social media for marketing. To excel, they must conduct a comprehensive analysis of the digital landscape, optimizing their social media strategies to engage the target audience successfully.

Various Business Problems are.

- Insufficient measurement and analytics.
- Inefficient Resource allocation
- Poor Audience Targeting
- Platform Selection
- Unclear Objectives

CHAPTER 3

PROPOSED METHOD

We proposed that LinkedIn is a professional platform, and the focus should be on building authentic relationships and providing value to your connections. Avoid overly salesy or spammy approaches, as they can deter potential customers and partners. By approaching LinkedIn with a well-defined strategy and a genuine intent to connect, businesses can unlock their potential to drive meaningful growth and opportunities.

Remember that the effectiveness of LinkedIn as a tool for engineering students depends on how actively they use and engage with the platform. Regularly updating their profile, sharing relevant content, and actively participating in discussions will maximize the benefits they receive from LinkedIn.

CHAPTER 4

LINKEDIN DATASET ATTRIBUTES

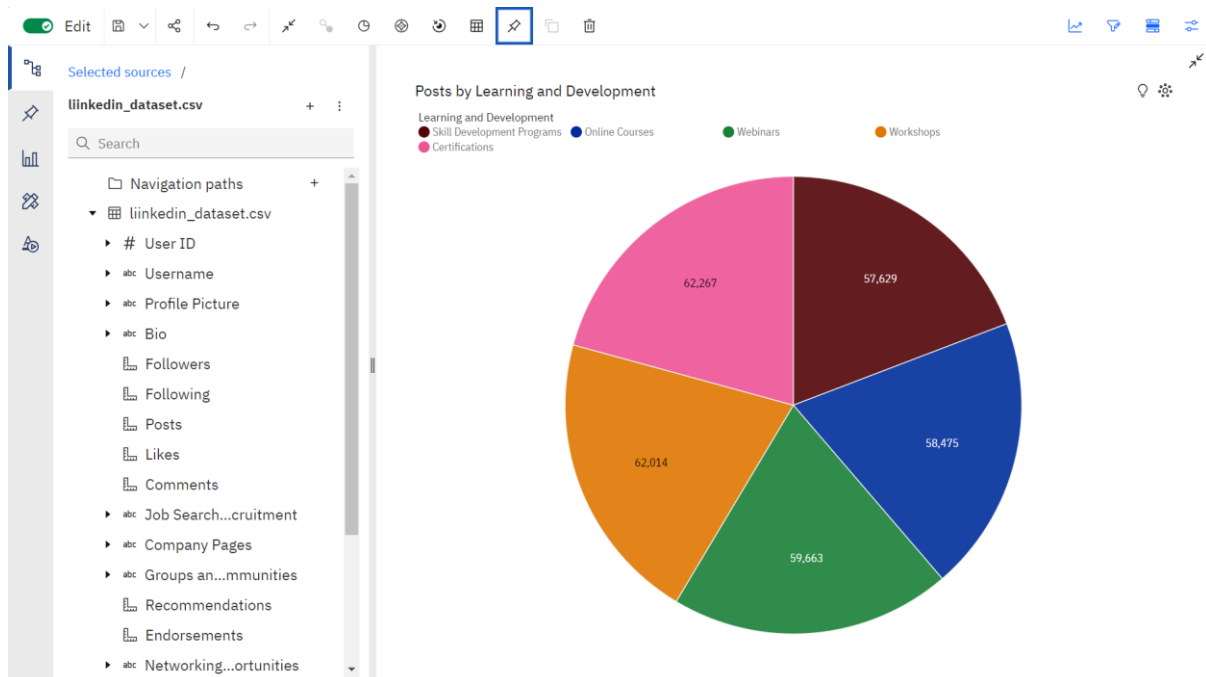
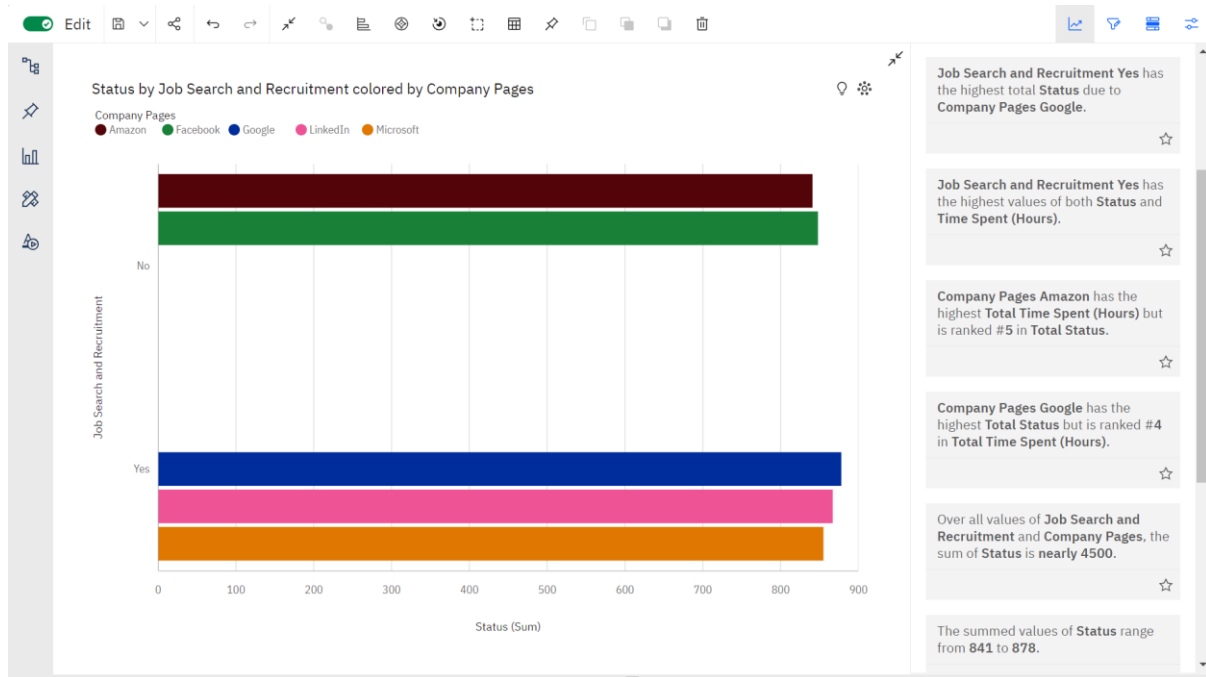
- User ID
- Username, Profile Picture
- Bio, Followers, Following
- Posts, Likes
- Comments
- Job Search and Recruitment
- Company Pages
- Groups and Communities
- Recommendations,
- Endorsements,
- Networking Opportunities
- Learning and Development
- Analytics and Insights
- Time Spent (Hours)
- Skill Assessments
- Alumni Networking
- Status

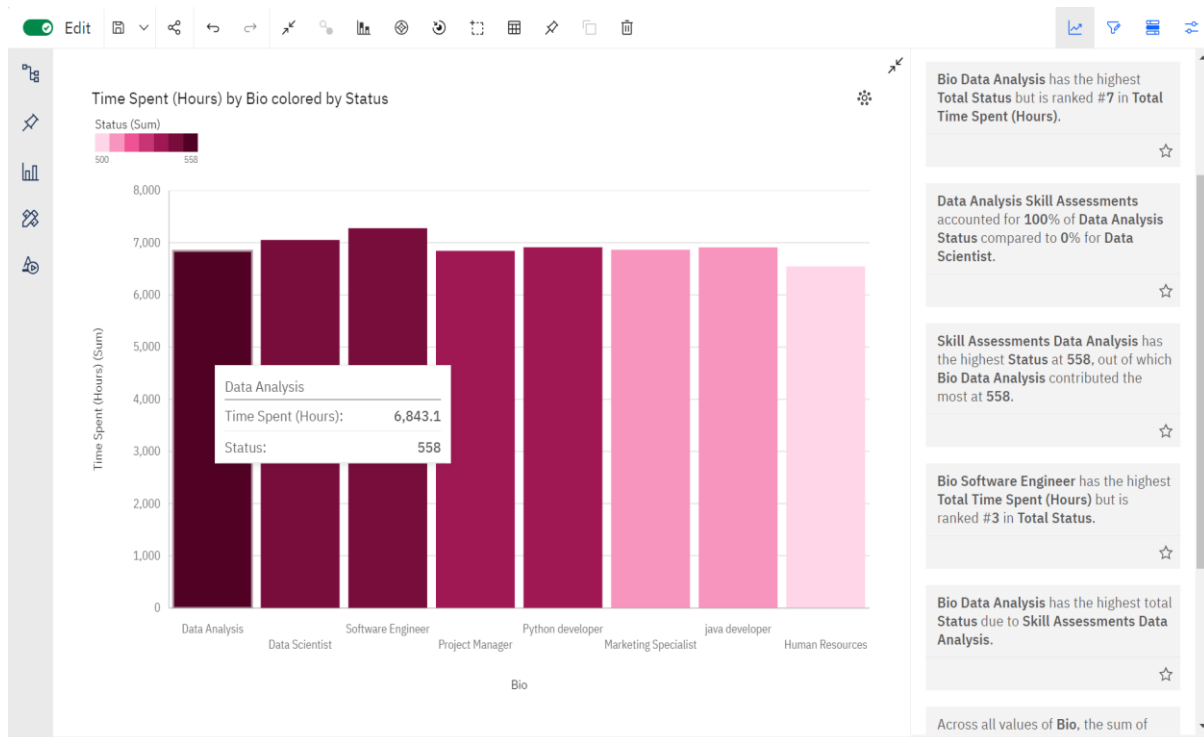
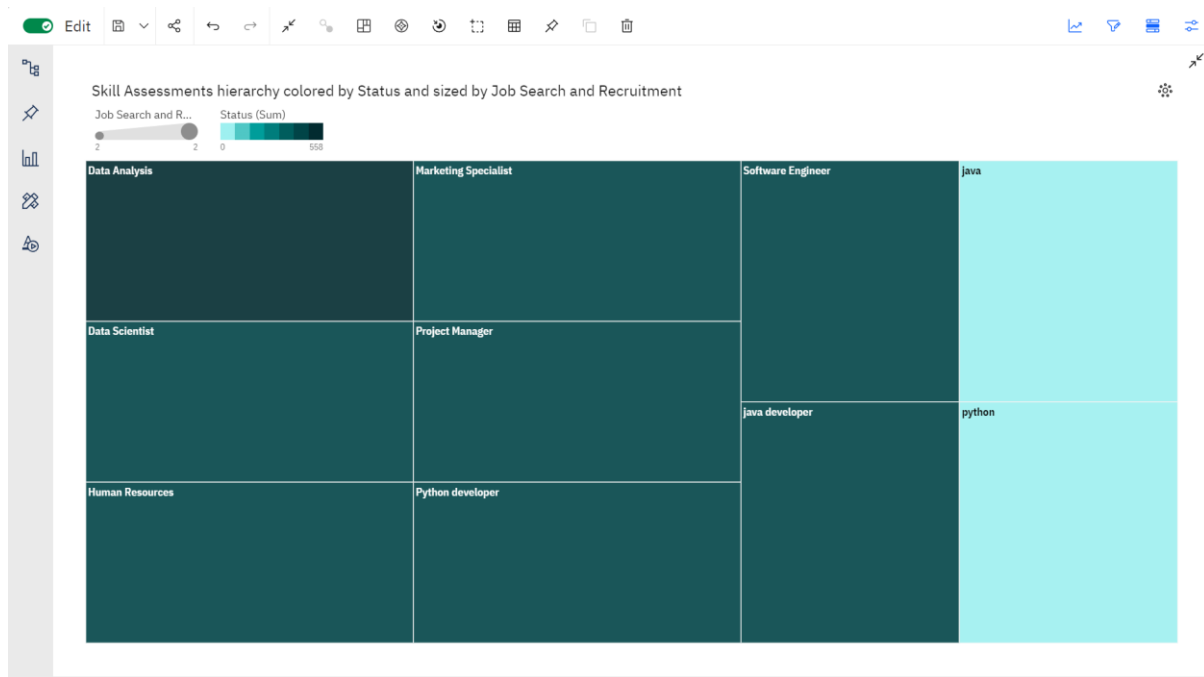
DATASET

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	User ID	Username	Profile Pic	Bio	Followers	Following	Posts	Likes	Comment	Job Search	Company	Groups ar	Recommen	Endorsemen	Networkin	Learning a	Analytics	Time Spen	Skill Asses	Alumni Ne	Status
2	1	user_1	profile_1.j	Marketing	814	470	25	183	9	Yes	Google	Technolog	23	50	Conferenc	Webinars	Job Applic	5.3	Data Anal	No	0
3	2	user_2	profile_2.j	Software I	973	62	17	191	9	Yes	Microsoft	Project M	14	62	Conferenc	Online Co	Post Enga	6.5	Software I	Yes	1
4	3	user_3	profile_3.j	Human Re	117	308	25	148	8	No	Amazon	Data Scier	44	32	Conferenc	Online Co	Post Enga	8.7	java	No	0
5	4	user_4	profile_4.j	Marketing	770	104	21	166	4	Yes	LinkedIn	Marketing	41	57	Networkin	Skill Devel	Post Enga	9.8	Data Anal	No	0
6	5	user_5	profile_5.j	Data Scier	373	187	41	25	7	No	Facebook	Marketing	14	100	Conferenc	Certificati	Job Applic	7.1	Data Scier	Yes	0
7	6	user_6	profile_6.j	java devel	788	306	13	48	9	Yes	Google	Project M	30	91	Mentorsh	Webinars	Job Applic	9	Project M	No	0
8	7	user_7	profile_7.j	Human Re	913	376	31	113	4	Yes	Microsoft	Marketing	38	59	Networkin	Certificati	Post Enga	7.8	Python de	Yes	0
9	8	user_8	profile_8.j	Data Anal	465	167	26	157	2	No	Amazon	Marketing	38	56	Networkin	Skill Devel	Learning F	5.8	Human Re	No	0
10	9	user_9	profile_9.j	Human Re	857	254	17	117	6	Yes	LinkedIn	Data Scier	43	87	Webinars	Certificati	Learning F	5.8	java	No	0
11	10	user_10	profile_10	Project M	330	423	33	83	8	No	Facebook	Data Scier	35	51	Webinars	Online Co	Job Applic	6.3	Python de	No	0
12	11	user_11	profile_11	Software I	626	83	50	193	3	Yes	Google	Project M	50	22	Webinars	Certificati	Learning F	5	Software I	No	1
13	12	user_12	profile_12	Python de	113	380	28	196	7	Yes	Microsoft	Data Scier	46	12	Networkin	Workshop	Post Enga	6.2	java devel	Yes	0
14	13	user_13	profile_13	Data Scier	303	332	29	65	5	No	Amazon	HR Profess	5	94	Networkin	Online Co	Post Enga	4	Data Scier	No	1
15	14	user_14	profile_14	Data Scier	981	365	23	78	6	Yes	LinkedIn	Marketing	20	52	Mentorsh	Skill Devel	Post Enga	1.9	Data Scier	No	1
16	15	user_15	profile_15	Marketing	556	377	19	99	7	No	Facebook	Technolog	31	51	Meetups	Certificati	Followers	6.6	java	Yes	0
17	16	user_16	profile_16	Human Re	645	315	50	59	3	Yes	Google	Technolog	16	17	Conferenc	Online Co	Job Applic	7	Data Scier	No	0
18	17	user_17	profile_17	Human Re	819	213	50	110	5	Yes	Microsoft	Marketing	49	55	Mentorsh	Workshop	Followers	4.7	java	No	0
19	18	user_18	profile_18	Data Scier	372	473	26	84	6	No	Amazon	Marketing	43	81	Conferenc	Online Co	Job Applic	4.8	Marketing	No	0
20	19	user_19	profile_19	Software I	330	128	27	29	5	Yes	LinkedIn	Project M	19	13	Networkin	Workshop	Job Applic	6.2	Project M	No	0
21	20	user_20	profile_20	Marketing	982	114	25	40	8	No	Facebook	Technolog	38	42	Webinars	Workshop	Post Enga	8.9	Marketing	No	1
22	21	user_21	profile_21	Marketing	165	441	44	198	6	Yes	Google	Data Scier	11	25	Meetups	Online Co	Followers	9.6	java	Yes	0
23	22	user_22	profile_22	Project M	982	320	30	199	6	Yes	Microsoft	Technolog	43	25	Networkin	Workshop	Followers	7.6	Project M	Yes	1
24	23	user_23	profile_23	Human Re	190	50	45	72	5	No	Amazon	Marketing	20	19	Mentorsh	Webinars	Profile Vie	8.2	Software I	No	0

CHAPTER 5

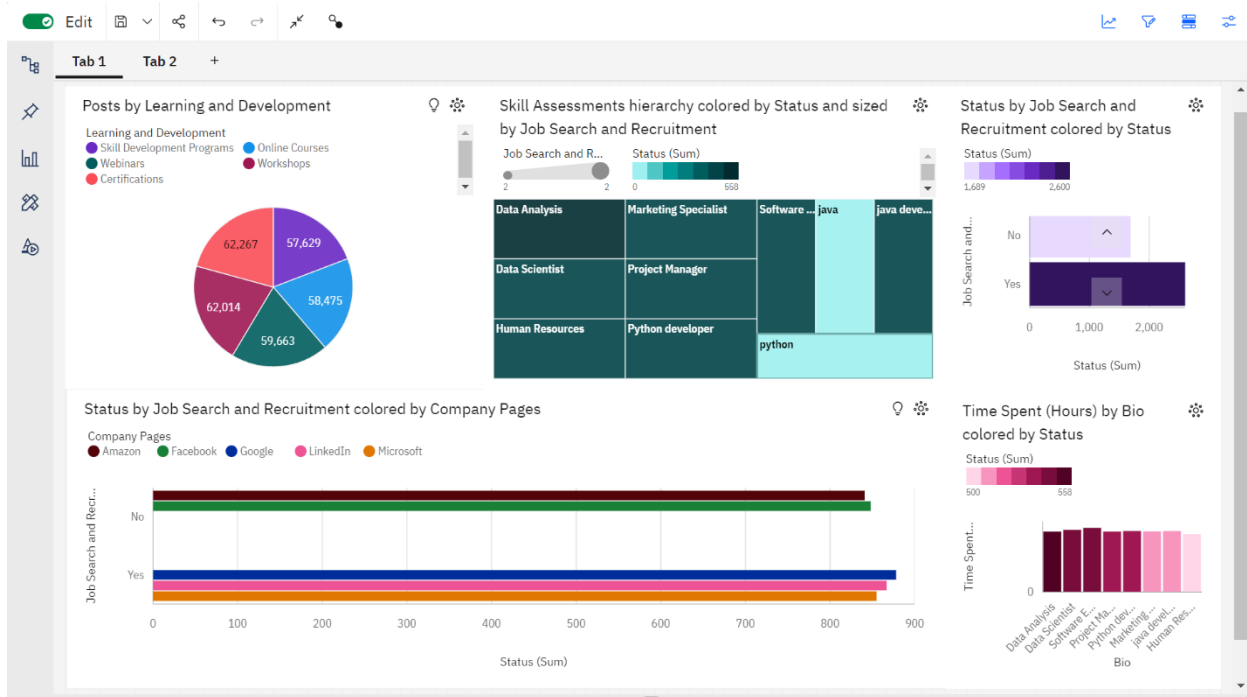
EXPERIMENTAL RESULTS OF THE LINKEDIN DATASET





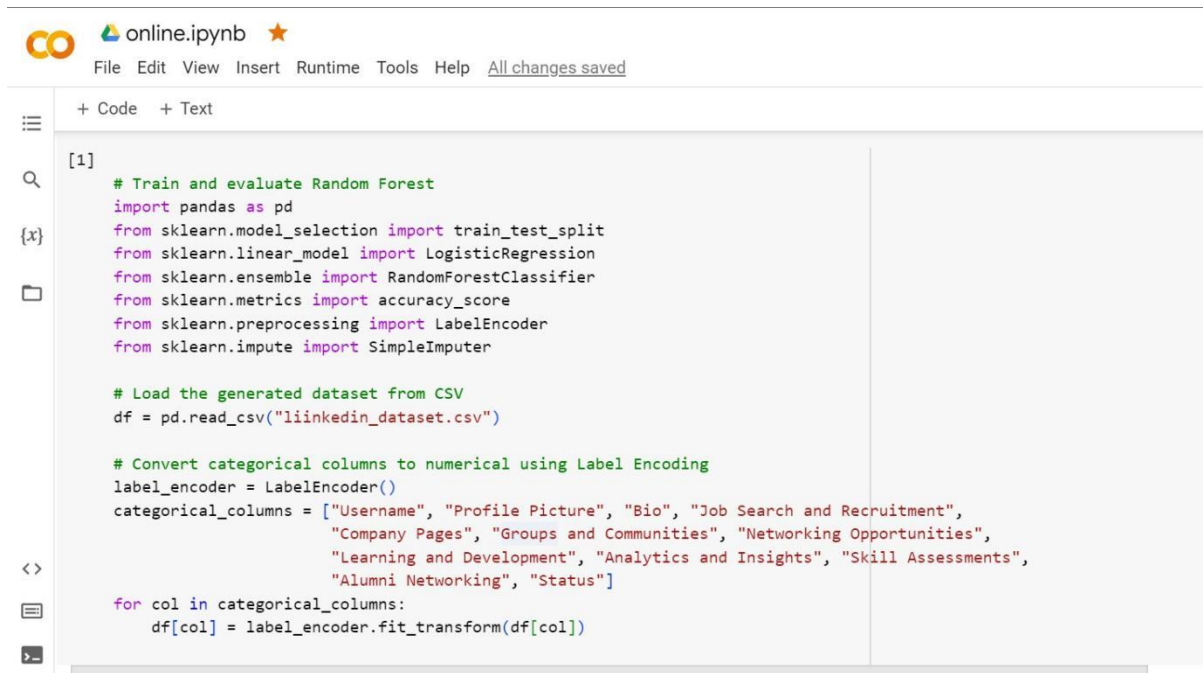
DASHBOARD

- **Linkedin dataset visualization**



CHAPTER 6

DATASET IMPLEMENTATION BY USING MACHINE LEARNING ALGORITHM...

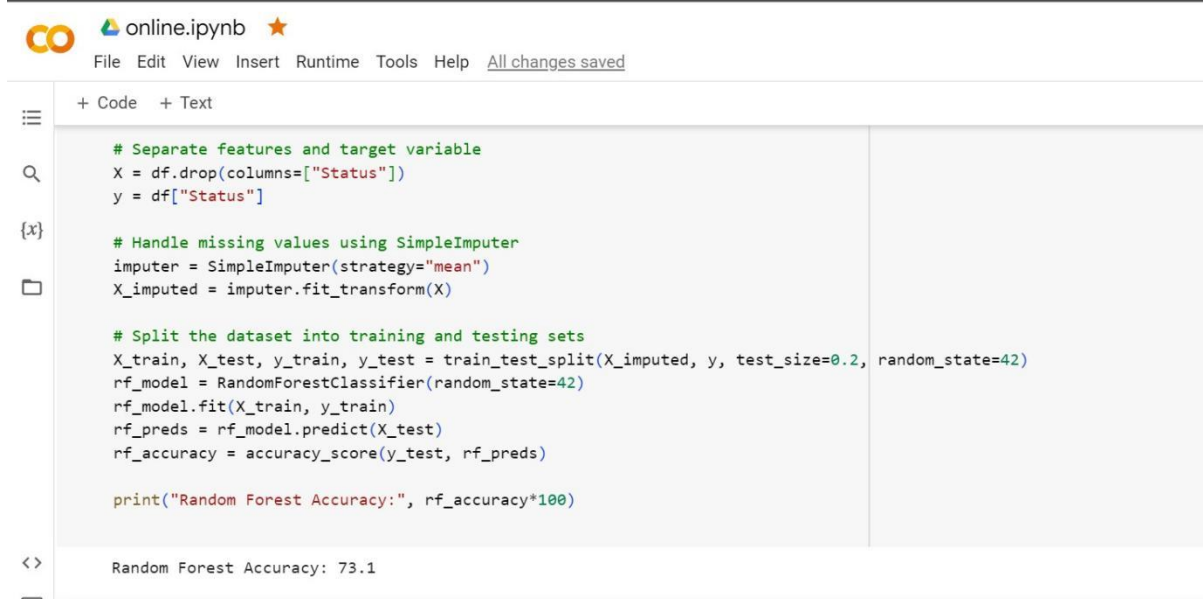


```
[1]
# Train and evaluate Random Forest
import pandas as pd
from sklearn.model_selection import train_test_split
from sklearn.linear_model import LogisticRegression
from sklearn.ensemble import RandomForestClassifier
from sklearn.metrics import accuracy_score
from sklearn.preprocessing import LabelEncoder
from sklearn.impute import SimpleImputer

# Load the generated dataset from CSV
df = pd.read_csv("linkedin_dataset.csv")

# Convert categorical columns to numerical using Label Encoding
label_encoder = LabelEncoder()
categorical_columns = ["Username", "Profile Picture", "Bio", "Job Search and Recruitment",
                      "Company Pages", "Groups and Communities", "Networking Opportunities",
                      "Learning and Development", "Analytics and Insights", "Skill Assessments",
                      "Alumni Networking", "Status"]

for col in categorical_columns:
    df[col] = label_encoder.fit_transform(df[col])
```



```
# Separate features and target variable
X = df.drop(columns=["Status"])
y = df["Status"]

# Handle missing values using SimpleImputer
imputer = SimpleImputer(strategy="mean")
X_imputed = imputer.fit_transform(X)

# Split the dataset into training and testing sets
X_train, X_test, y_train, y_test = train_test_split(X_imputed, y, test_size=0.2, random_state=42)
rf_model = RandomForestClassifier(random_state=42)
rf_model.fit(X_train, y_train)
rf_preds = rf_model.predict(X_test)
rf_accuracy = accuracy_score(y_test, rf_preds)

print("Random Forest Accuracy:", rf_accuracy*100)

Random Forest Accuracy: 73.1
```

CHAPTER 7

APPLICATIONS/ADVANTAGES AND DISADVANTAGES

ADVANTAGES

1. Professional Networking
2. Job and Internship Opportunities
3. Skills and Projects Showcase
4. Learning and Development
5. Industry Insights

DIS ADVANTAGES

1. Privacy Concerns
2. Profile Management
3. Limited Engagement
4. Competition
5. Skill Validation

APPLICATIONS

- LinkedIn
- Youtube
- Instagram
- FaceBook etc...

CHAPTER 8

CONCLUSION

In conclusion, analyzing the status attribute of engineering students on LinkedIn provides valuable insights into how they use the platform. It shows that having an active and engaging presence is crucial, with relevant and consistent information in bios and skill assessments.

LinkedIn offers great opportunities for students to expand their professional networks, find job openings, and showcase their skills to potential employers and industry professionals.

To get the most out of LinkedIn, engineering students should focus on creating attractive and up-to-date profiles, participating in discussions and relevant content, and actively connecting with others in their field. By doing so, they can fully benefit from LinkedIn's advantages and advance their careers in the competitive engineering industry.