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Submission

Team Name: Ave

Participant Name : Yashashri Gawande

Problem Statement 1 : Analyze Placement Data

Goal: To analyze the placement records of the students of a MBA college.

Dataset Description: The dataset includes secondary and higher secondary school percentages, specializations, degree, specialization, work experience, and the salary offered to the students.

My Approach:

- To analyze the factors, I have used Google Colab and Matplotlib.
- Analyzed some major columns on which placement depends.



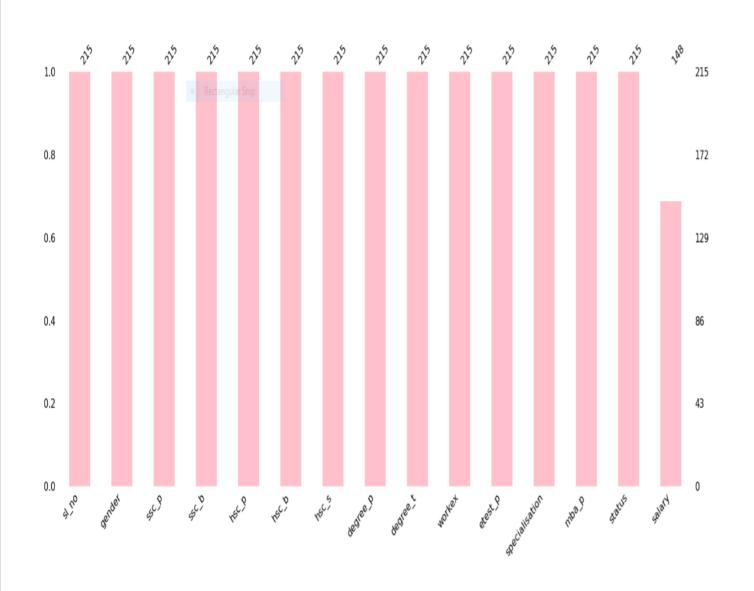
Data Exploration

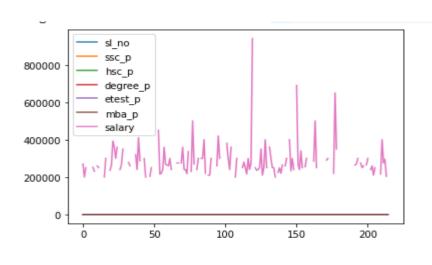
The dataset contains 215 rows and 15 columns

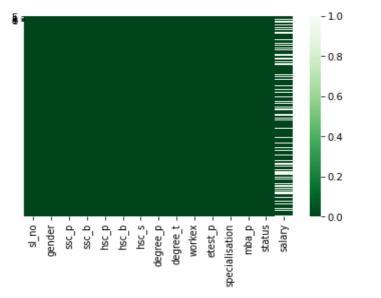
	sl_no	gender	ssc_p	ssc_b	hsc_p	hsc_b	hsc_s	degree_p	degree_t	workex	etest_p	specialisation	mba_p	status	salary
0	1	М	67.00	Others	91.00	Others	Commerce	58.00	Sci&Tech	No	55.0	Mkt&HR	58.80	Placed	270000.0
1	2	М	79.33	Central	78.33	Others	Science	77.48	Sci&Tech	Yes	86.5	Mkt&Fin	66.28	Placed	200000.0
2	3	М	65.00	Central	68.00	Central	Arts	64.00	Comm&Mgmt	No	75.0	Mkt&Fin	57.80	Placed	250000.0
3	4	М	56.00	Central	52.00	Central	Science	52.00	Sci&Tech	No	66.0	Mkt&HR	59.43	Not Placed	NaN
4	5	М	85.80	Central	73.60	Central	Commerce	73.30	Comm&Mgmt	No	96.8	Mkt&Fin	55.50	Placed	425000.0
210	211	М	80.60	Others	82.00	Others	Commerce	77.60	Comm&Mgmt	No	91.0	Mkt&Fin	74.49	Placed	400000.0
211	212	М	58.00	Others	60.00	Others	Science	72.00	Sci&Tech	No	74.0	Mkt&Fin	53.62	Placed	275000.0
212	213	М	67.00	Others	67.00	Others	Commerce	73.00	Comm&Mgmt	Yes	59.0	Mkt&Fin	69.72	Placed	295000.0
213	214	F	74.00	Others	66.00	Others	Commerce	58.00	Comm&Mgmt	No	70.0	Mkt&HR	60.23	Placed	204000.0
214	215	М	62.00	Central	58.00	Others	Science	53.00	Comm&Mgmt	No	89.0	Mkt&HR	60.22	Not Placed	NaN

Missing Numbers

Graph and Heat Map

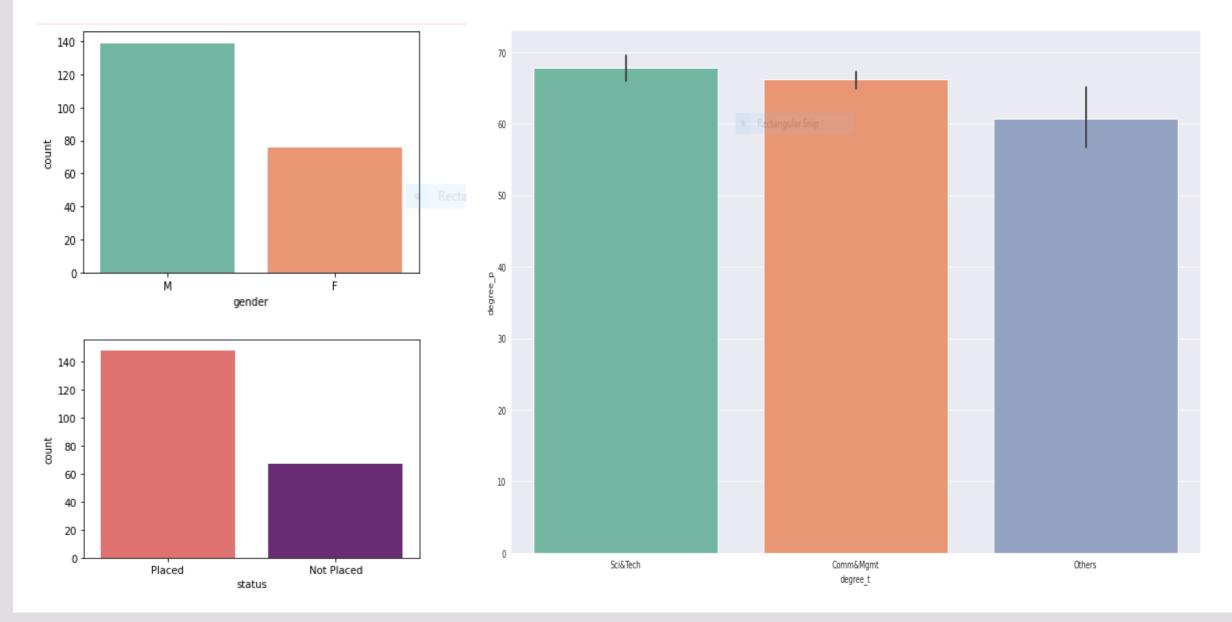






Methods

Sci&Tech degree specializations are in high demand in the industry



Problem Statement 2: Detecting Emotional Sentiment in Cartoons

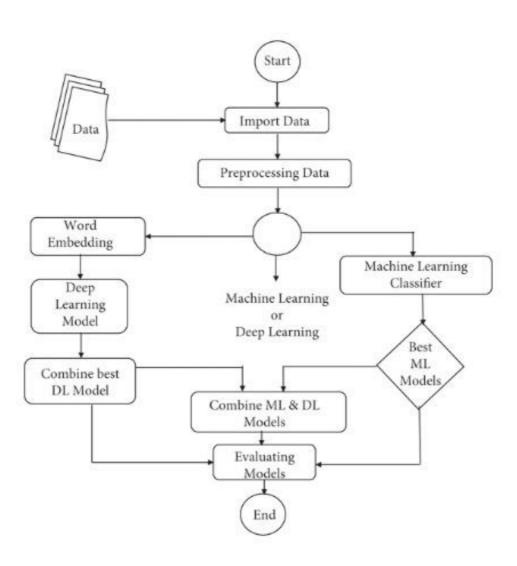
Goal: To build and fine-tune a machine-learning model that accurately classifies social media posts into their corresponding emotion categories, using synthetic images.

Methodology:

- Input (Collection of dataset)
- Pre-processing
- Feature extraction
- Model development
- Model assessment



Pipeline Architecture



Future Scope

- Emotion recognition is an emerging field so considering other NNs such as Recurrent Neural Networks (RNNs) may improve the accuracy.
- The feature extraction is similar to pattern recognition which is used in intelligence and forensics for identification purposes.
- DL based approaches require a large labeled dataset, significant memory and long training and testing times which makes them difficult to implement on mobile and other platforms with limited resources.
- Thus, simple solutions should be developed with lower data and memory requirements.