

# BrainDead23 Hackathon Submission

Team Name: Codehack\_21

# Team Members

- Aritro Ghosh
- Avinash Bhojanapalli

---

# First Problem statement: Placement stats

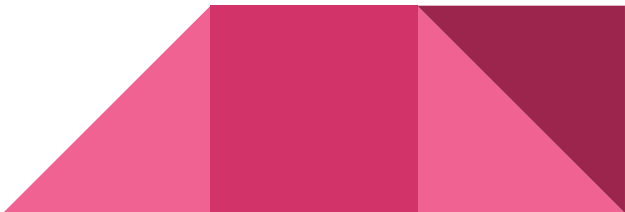
sl_no	gender	ssc_p	ssc_b	hsc_p	hsc_b	hsc_s	degree_p	degree_t	workex	etest_p	specialisation	mba_p	status	salary
1	M	67.00	Others	91.00	Others	Commerce	58.00	Sci&Tech	No	55.0	Mkt&HR	58.80	Placed	270000.0
2	M	79.33	Central	78.33	Others	Science	77.48	Sci&Tech	Yes	86.5	Mkt&Fin	66.28	Placed	200000.0
3	M	65.00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

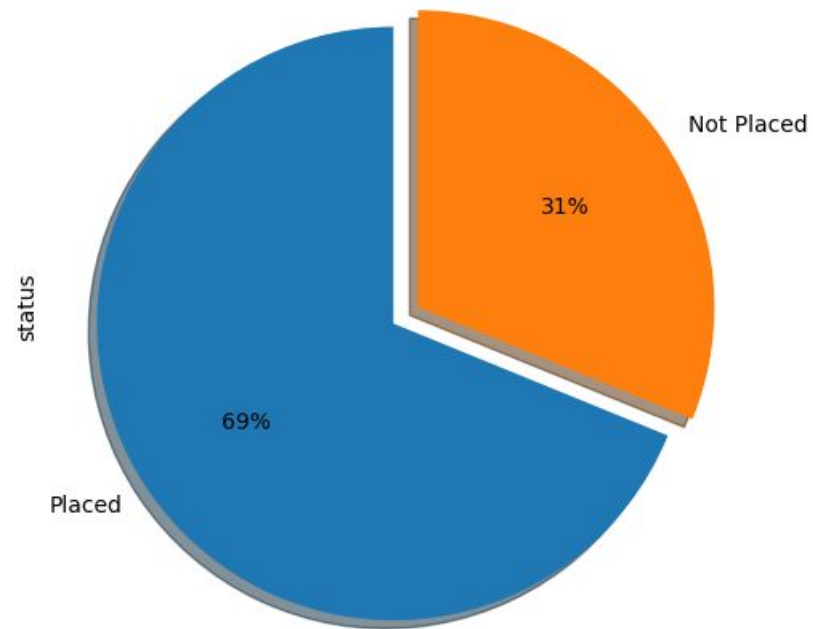
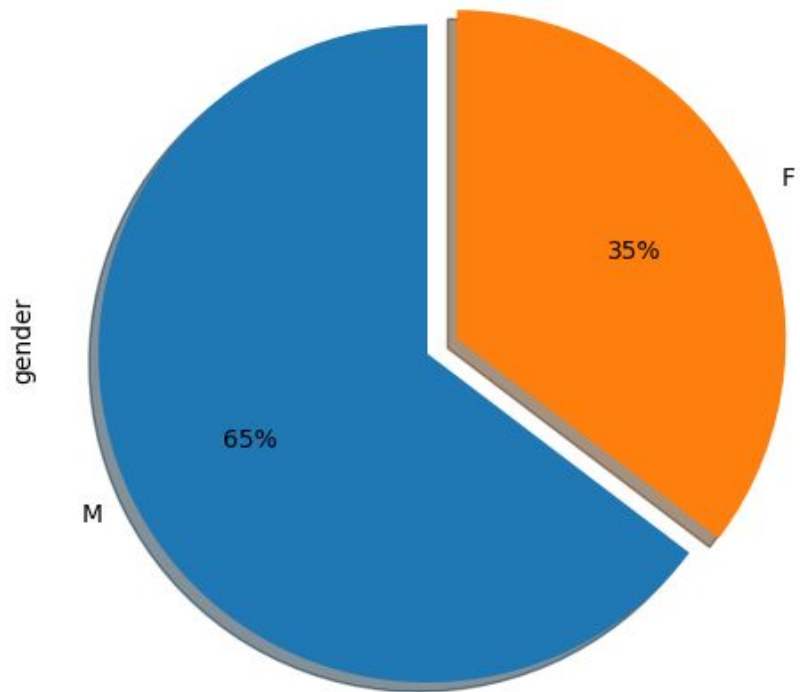
# Correlation between all attributes and placement status

gender	0.090670
ssc_p	0.607889
ssc_b	0.037297
hsc_p	0.491228
hsc_b	0.016945
hsc_s	0.033442
degree_p	0.479861
degree_t	-0.020352
workex	0.276060
etest_p	0.127639
specialisation	-0.250655
mba_p	0.076922
status	1.000000
salary	0.865774

In this list, we can see that high school percentage, degree percentage and work experience carry the highest correlation for placement status. We can ignore salary as it is valid only if the student is placed.

Moreover, we can notice a negative correlation for the specialization and the degree type.





# Hypothesis Testing: check if etest\_p is significant wrt status

H0: etest\_p is not significant wrt status

H1: etest\_p is significant wrt status

alpha = 0.05

since etest\_p is continuous, we will use ANOVA test

ANOVA test

	count	mean	std	min	25%	50%	75%	max
status								
0	67.0	69.587910	11.930687	50.0	60.0	67.0	76.5	97.0
1	148.0	73.238041	13.729333	50.0	60.0	72.0	85.0	98.0

