

Solution Target 4

Explanation:

1. From the below inspection and the histogram (next page) we can see that most people rate themselves as close to the average

```
df_pre_contest.mean()
```

Prutor ID	160.900901
Current CGPA	8.386630
Rate your problem solving ability on the scale of 1 to 5	3.175926
Rate your coding proficiency on the scale of 1 to 5	3.083333
How comfortable are you coding in C?	3.324074
dtype: float64	

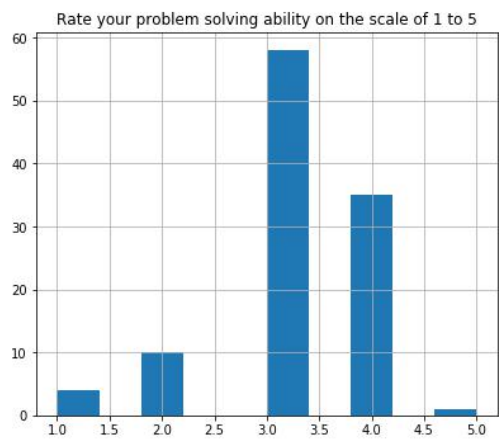
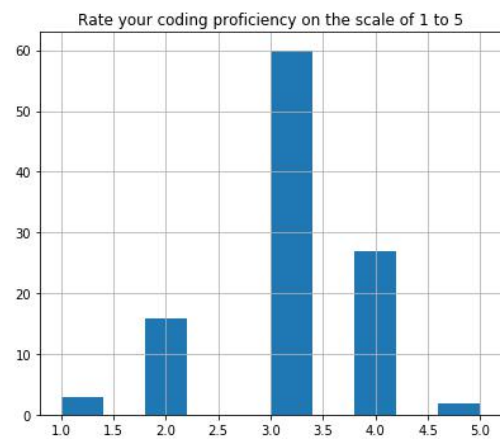
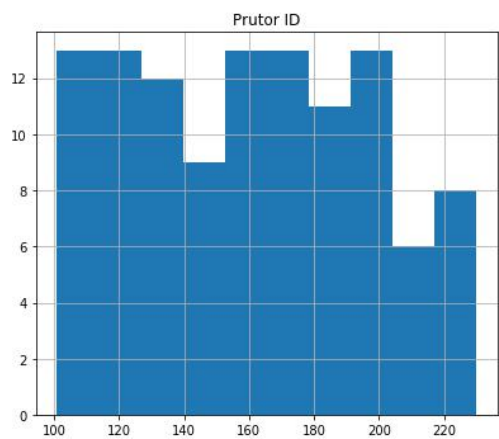
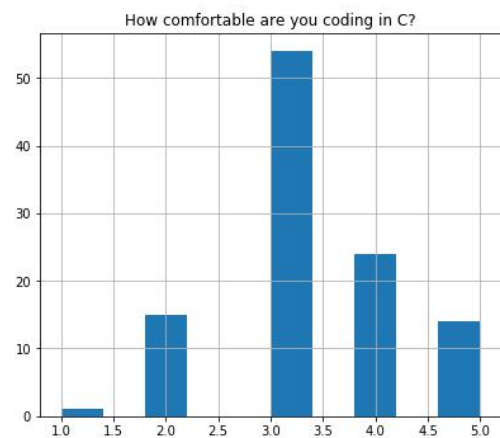
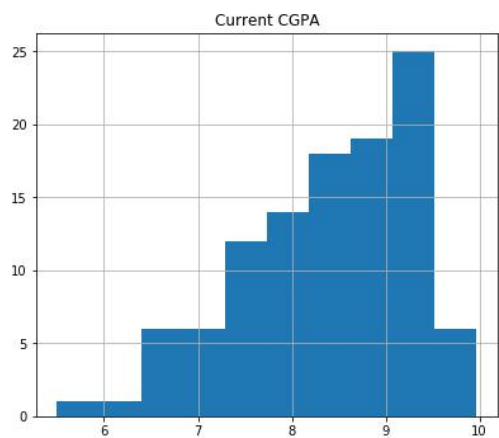
2. From the below inspection, we can see that more people are beginners in programming. Very few people are with more than 4 years of experience exist.

Rate your problem solving ability on the scale of 1 to 5 Rate your coding proficiency on the scale of 1 to 5		
Years of coding experience		
1-2 years	34	34
2-3 years	35	35
3-4 years	13	13
<1 year	16	16
>4 years	10	10

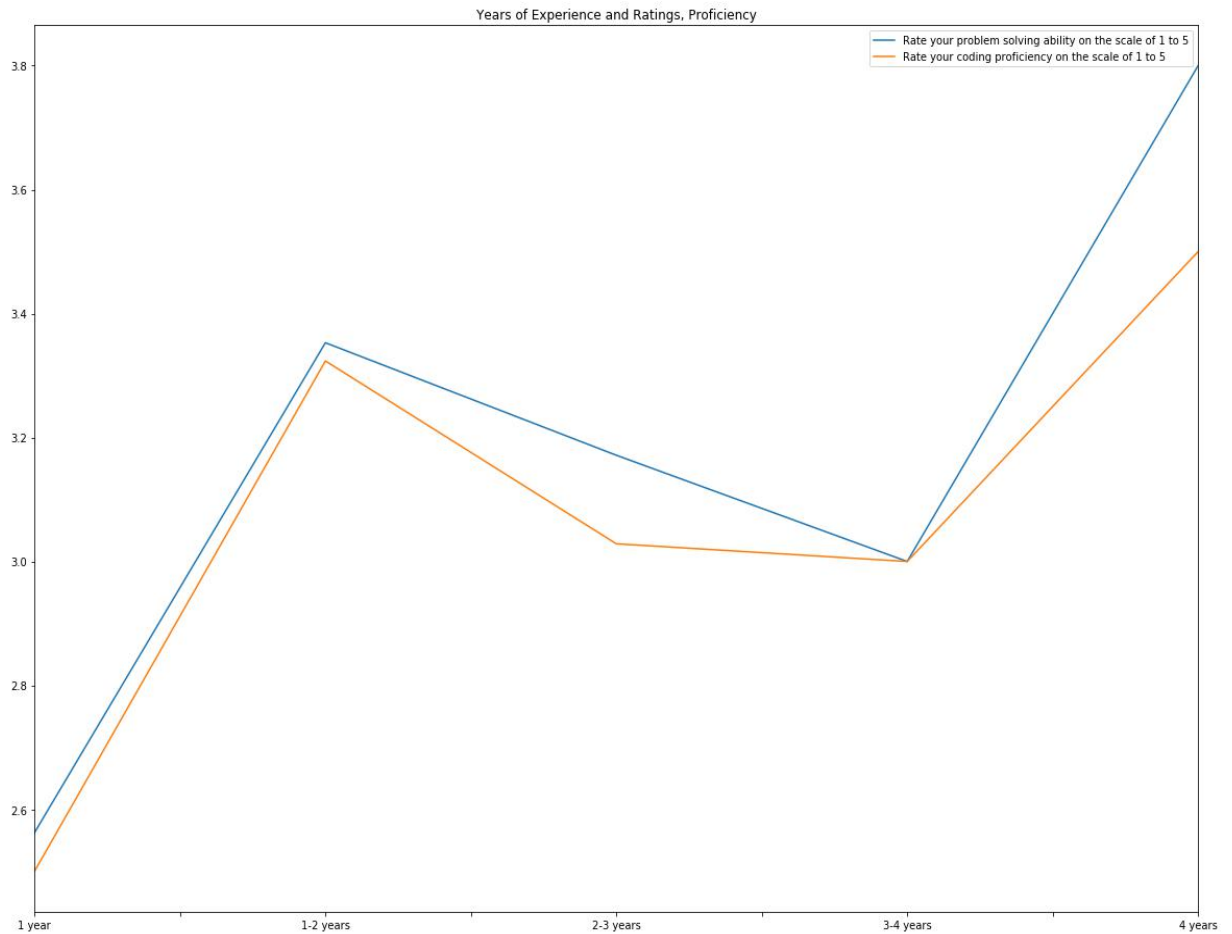
3. Notice that people with more years of experience tend to have higher ratings (comparatively). Although we cannot come to a conclusion that people with more experience are good in programming

Rate your problem solving ability on the scale of 1 to 5 Rate your coding proficiency on the scale of 1 to 5		
Years of coding experience		
1-2 years	3.352941	3.323529
2-3 years	3.171429	3.028571
3-4 years	3.000000	3.000000
<1 year	2.562500	2.500000
>4 years	3.800000	3.500000

Histogram for point 2



4. Years of experience vs Proficiency, Ratings

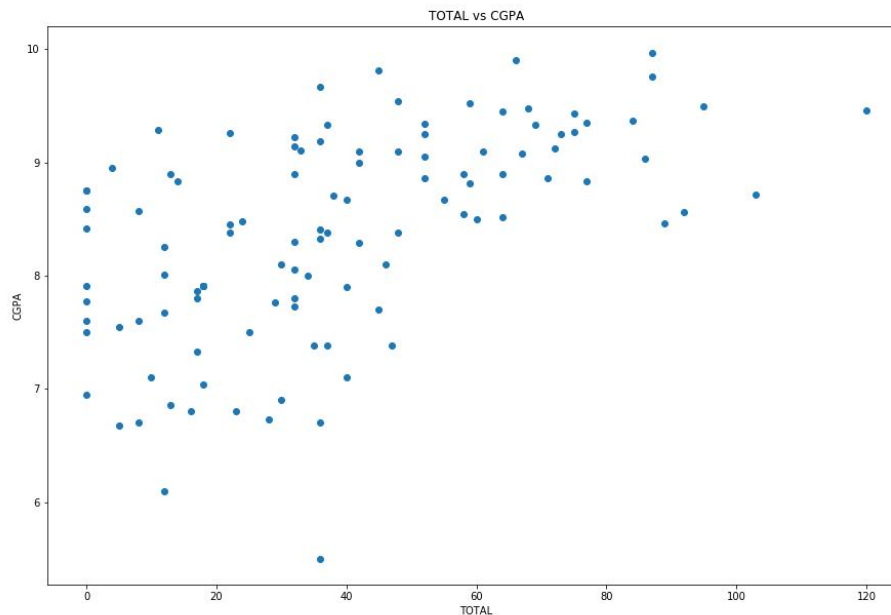


- Clearly, it is visible that people with more experience tends to rate themselves good in programming on average.
- Notice how people with 1-2 years of experience also tend to rate themselves high compared to other years of experience.
- People in the range 3-4 years have low ratings when compared to 1-2 years because of less samples

5. Also we noticed that students from B Tech (CS, Electronics) tend to score more than students from M Tech/MCA from the below inspection of averages of GPAs, Total scores and ratings

		Prutor ID	Q1	Q2	Q3	Q4	Q5	Q6	TOTAL	Current CGPA	Rate your problem solving ability on the scale of 1 to 5	Rate your coding proficiency on the scale of 1 to 5	How comfortable are you coding in C?
Department	Years of coding experience												
B.Tech Civil / Mechanical	3-4 years	147.000000	10.000000	3.000000	18.000000	12.000000	5.000000	0.000000	48.000000	9.100000	4.000000	4.000000	3.000000
B.Tech Computer Science	1-2 years	153.000000	8.571429	14.714286	15.047619	8.380952	4.761905	6.285714	57.761905	8.809333	3.571429	3.523810	4.047619
	2-3 years	145.909091	10.909091	15.363636	16.909091	5.090909	2.727273	9.636364	60.636364	9.129091	3.454545	3.363636	3.909091
	3-4 years	153.500000	15.000000	20.000000	20.000000	13.000000	2.500000	20.000000	90.500000	8.510000	3.000000	3.000000	3.000000
	<1 year	150.250000	10.000000	5.750000	15.000000	3.500000	6.250000	9.000000	49.500000	8.990000	2.500000	2.500000	2.500000
	>4 years	139.750000	16.250000	13.000000	20.000000	6.500000	2.500000	9.000000	67.250000	9.207500	4.250000	4.250000	4.250000
B.Tech Electrical / Electronics	1-2 years	119.000000	0.000000	0.000000	14.000000	0.000000	0.000000	4.000000	18.000000	7.040000	3.000000	3.000000	4.000000
	2-3 years	155.000000	5.000000	10.000000	10.000000	0.000000	2.500000	3.000000	30.500000	8.925000	3.500000	3.000000	4.000000
M.Tech Computer Science / M.C.A	1-2 years	163.166667	2.083333	4.166667	7.833333	5.833333	2.500000	0.166667	22.583333	7.627500	3.000000	3.000000	2.583333
	2-3 years	168.909091	1.818182	3.454545	10.818182	9.909091	3.409091	0.090909	29.500000	8.114091	3.000000	2.863636	3.272727
	3-4 years	188.666667	0.833333	2.750000	8.500000	5.833333	3.333333	0.000000	21.250000	8.101667	2.583333	2.583333	3.000000
	<1 year	171.000000	0.000000	2.500000	9.833333	8.833333	3.750000	1.333333	26.250000	7.855833	2.583333	2.500000	2.500000
	>4 years	165.333333	1.666667	1.666667	7.666667	6.000000	2.500000	0.666667	20.166667	8.471667	3.500000	3.000000	3.000000

6. Also, total score and cgpa are highly correlated from the plot below



Conclusion

1. Students from **Btech** performed significantly better than students from **Mtech/MCA**
2. Students with higher CGPA scored more in the test compared to others
3. Also, students from **Btech** had significantly higher GPA, and hence higher test scores
4. Also, students from **Mtech/MCA** had significantly lesser GPA, and hence lesser test scores