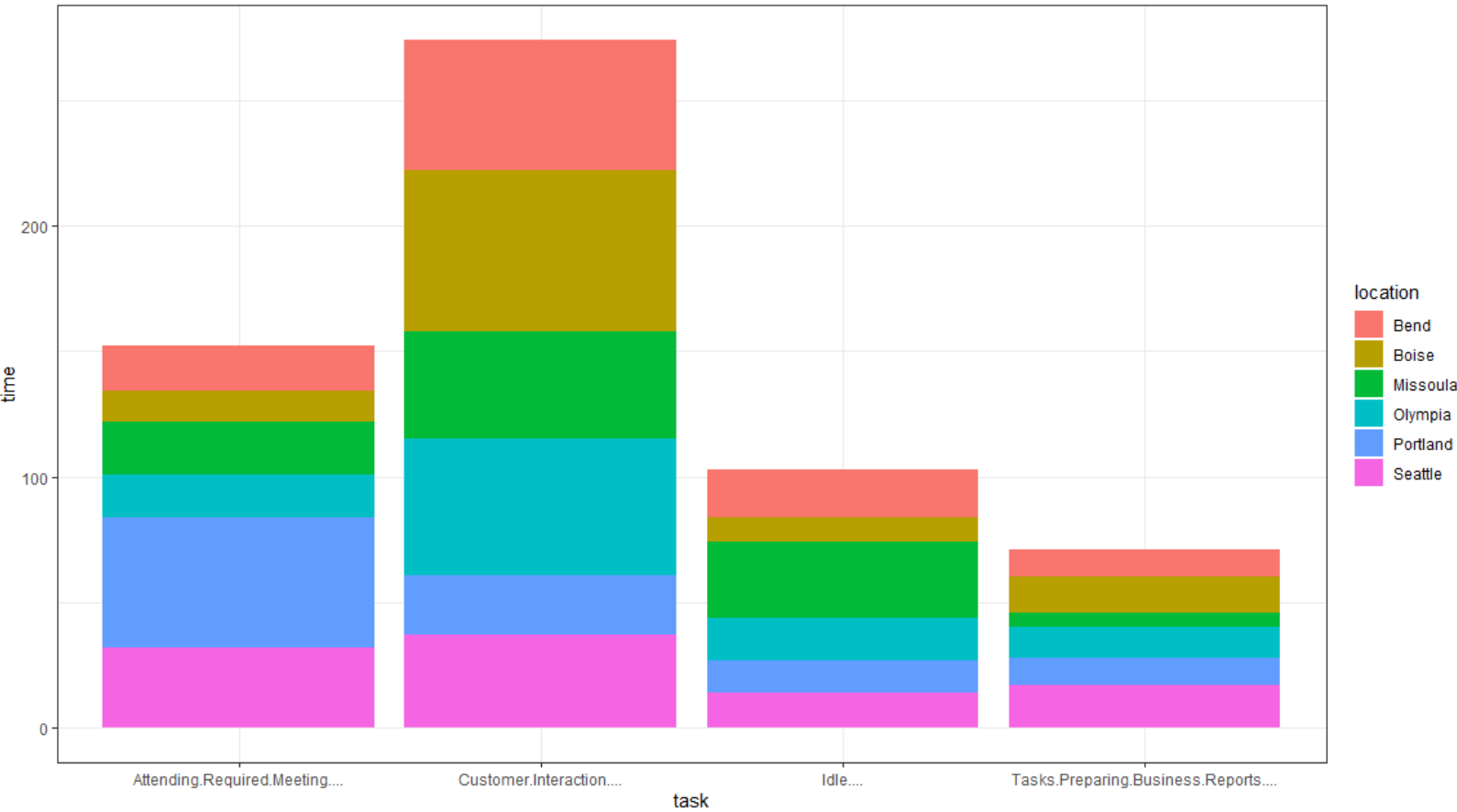
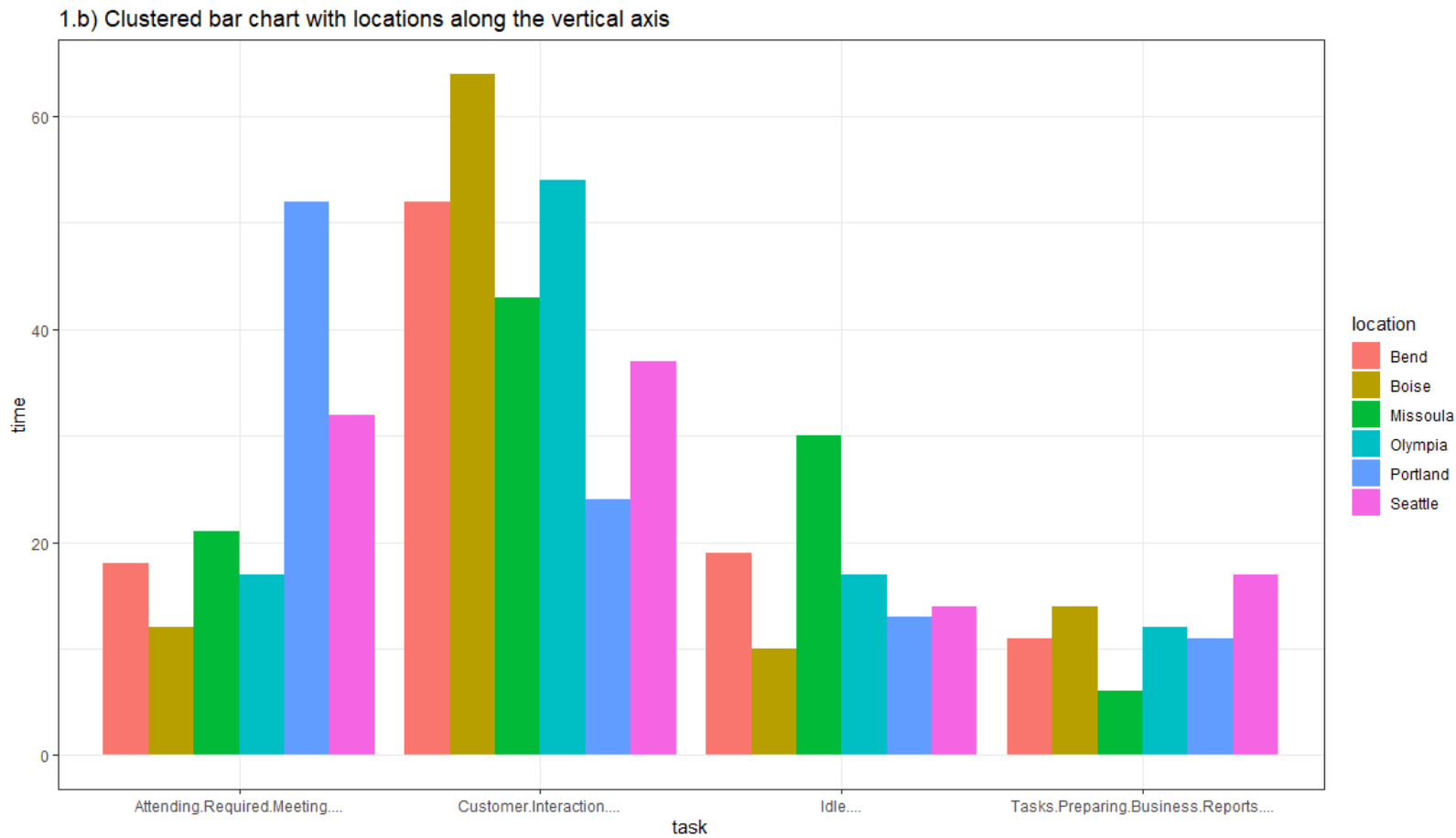


1.a)

1.a) Stacked bar chart with locations along the vertical axis

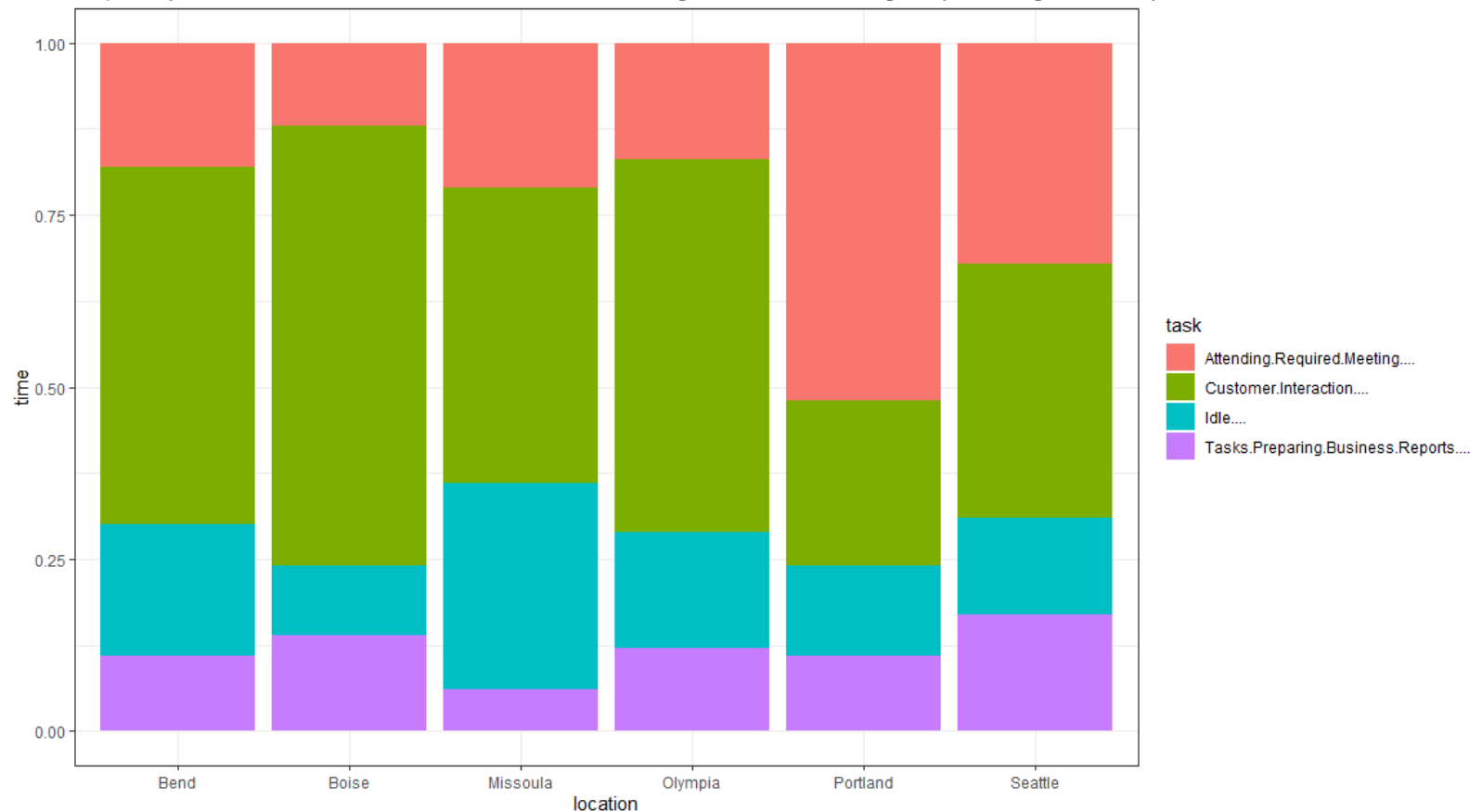


1.b)



1.c)

1.c) Multiple bar charts where each location becomes a single bar chart showing the percentage of time spent on tasks



1.d) The main objective of the study is to identify how the store managers are allocating their time. The Multiple bar chard clearly depict in which task the managers are expending longer time and how this varies in different locations. So I think, multiple bar chart is preferable for this data.

1.e) Below inferences can be drawn about differences among how store managers are allocating their time at the different locations.

- Managers of 'Missoula' are spending more 'idle' time
- Managers of 'Boise' are spending more in 'customer interaction'

2.a)

	MLinReg\$coefficients
(Intercept)	35.69674
Comfort	0.109349
Amenities	0.244268
In.House.Dining	0.247431

estimated multiple linear regression equation:

Overall = 35.69674 + 0.109349(Comfort) + 0.244268(Amenities) + 0.247431(In.House.Dining)

2.b)

Multiple R-squared: 0.7498, Adjusted R-squared: 0.7029
F-statistic: 15.98 on 3 and 16 DF, p-value: 4.524e-05

p-value of F-statistic 15.98 for degrees of freedom 3 and 16 is extremely small, i.e smaller than 0.01 so we can reject H0 and say that overall addition of variables is significantly improving the model. Which in a way implies that by adding those variables we were able to improve the fit of our model significantly.

2.c)

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	35.69674	13.21538	2.701	0.01573 *
Comfort	0.10935	0.12972	0.843	0.41167
Amenities	0.24427	0.04332	5.639	3.69e-05 ***
In.House.Dining	0.24743	0.06212	3.983	0.00107 **

p-value of t-static is smaller than 0.01 for Amenities and In.House.Dining. So Overall rating is significantly related to these two but not significantly related to Comfort.

2.d)

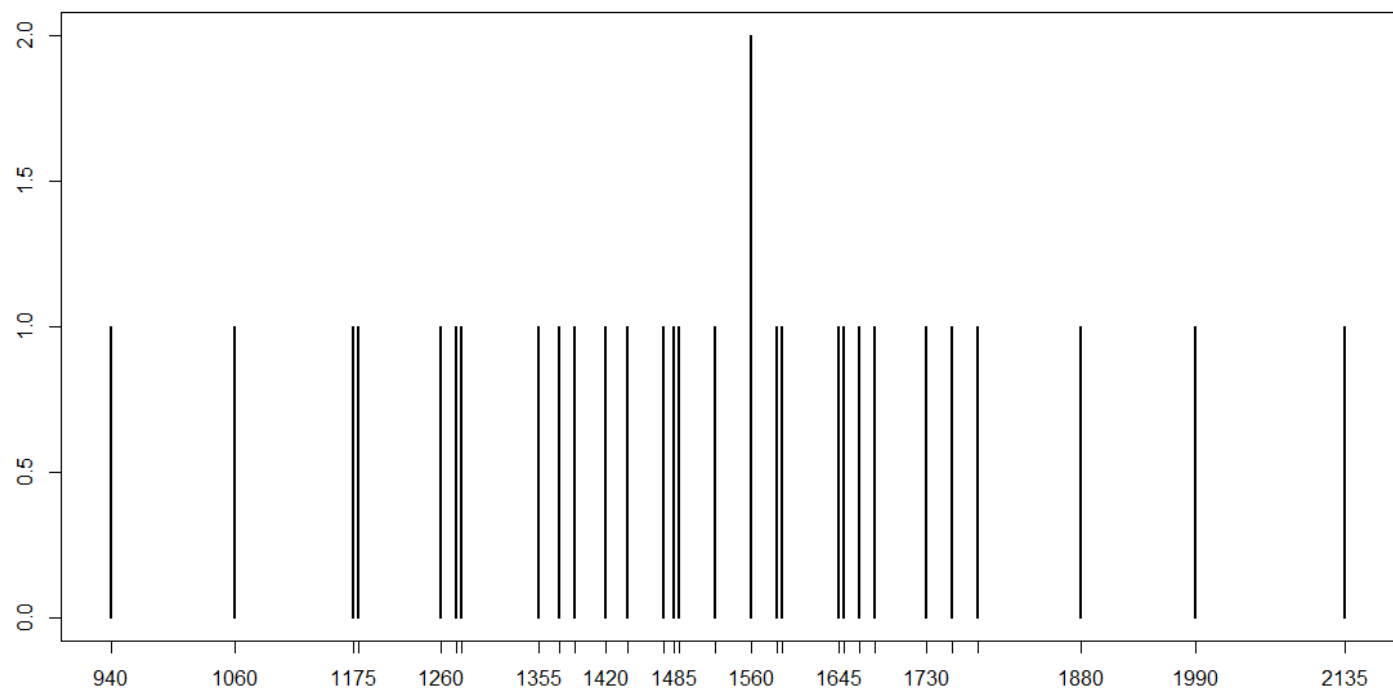
	MLinReg2\$coefficients
(Intercept)	45.14614888
Amenities	0.252580552
In.House.Dining	0.248265677

Recommended estimated regression equation:

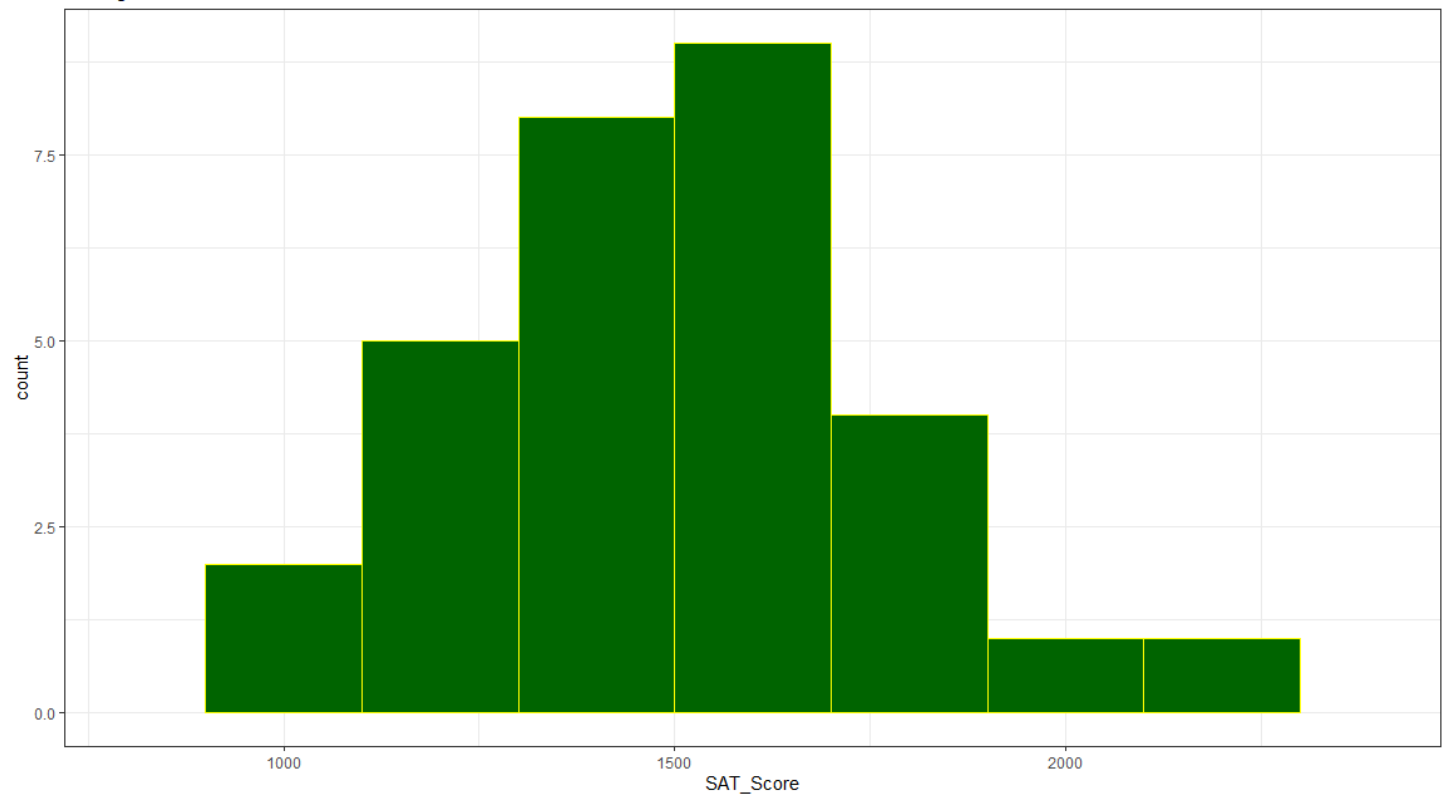
Overall = 45.14614888 + 0.252580552 (Amenities) + 0.248265677 (In.House.Dining)

3.a)

Frequency Distribution

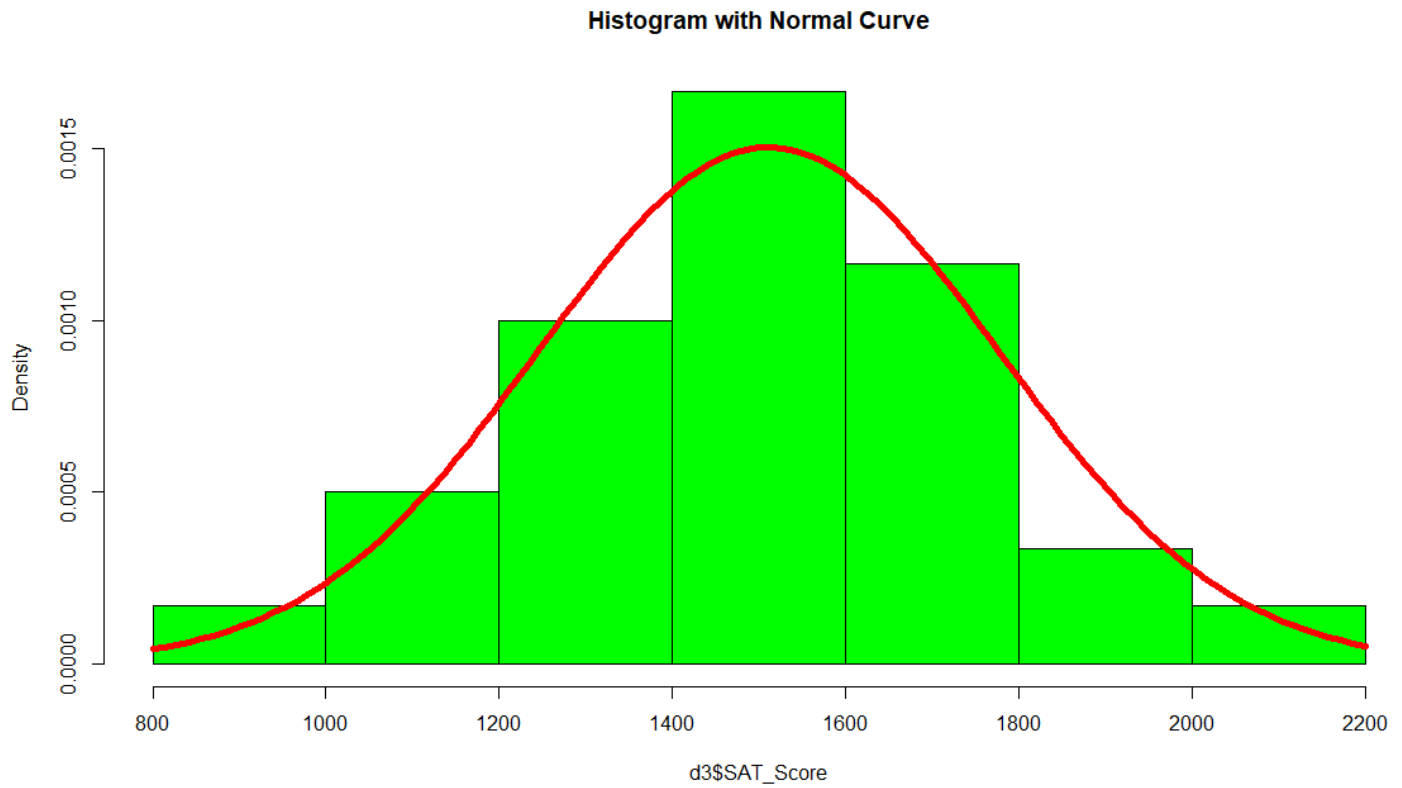


Histogram



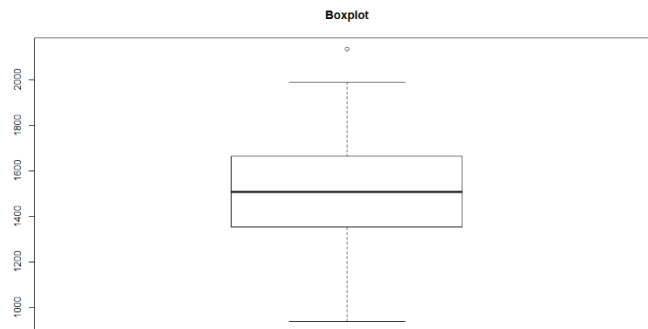
3.b)

The shape of the distribution is near to a Gaussian(normal) distribution



3.c)

```
SAT_Score
Min.   : 940
1st Qu.:1360
Median :1508
Mean   :1511
3rd Qu.:1661
Max.   :2135
```



4.a)

Frequency Distribution:

Live Now

	frequencies	percentage	cumulativepercentage
C	32	32	32
R	16	16	48
S	26	26	74
T	26	26	100
Totals	100	100	100

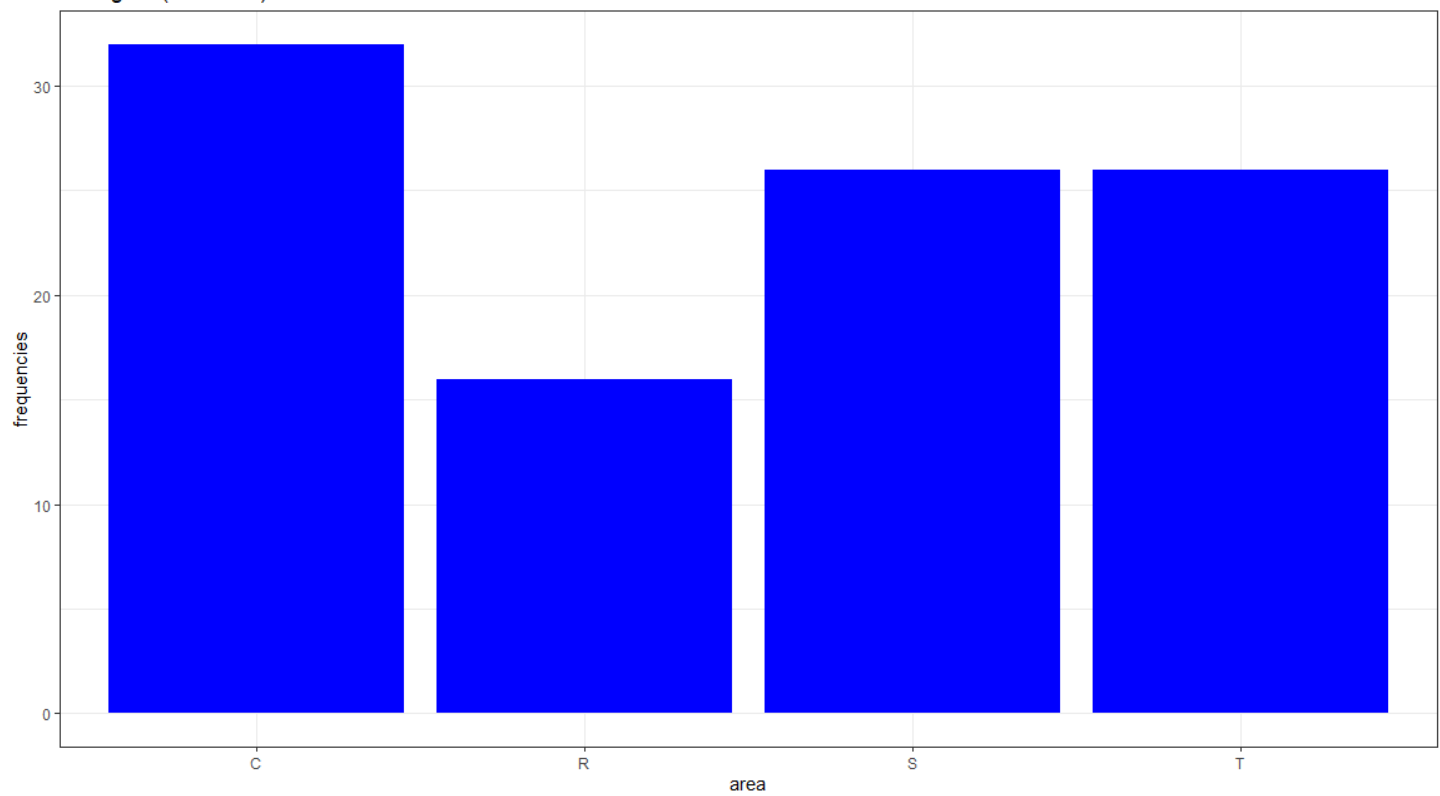
Live Ideal

	frequencies	percentage	cumulativepercentage
C	24	24	24
R	21	21	45
S	25	25	70
T	30	30	100
Totals	100	100	100

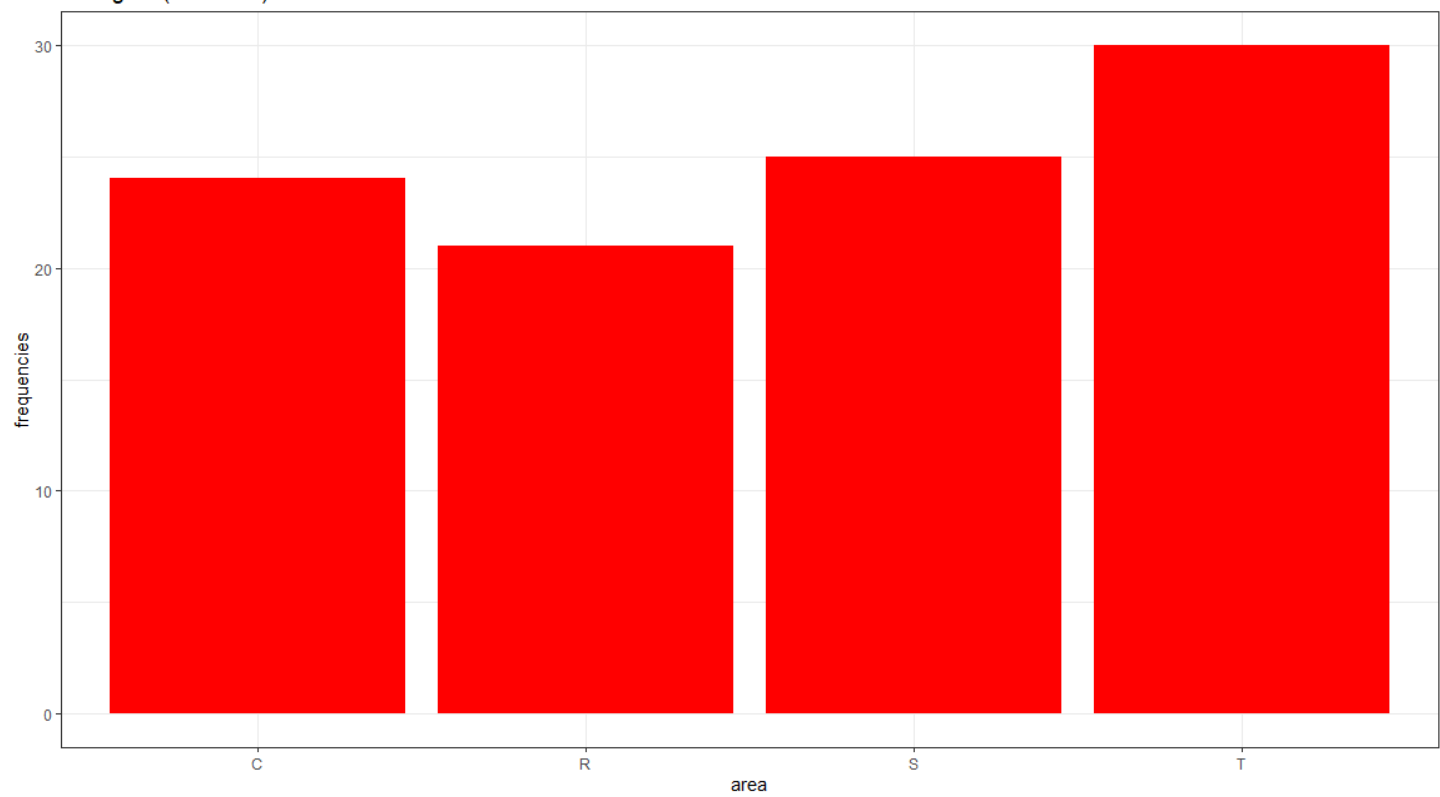
Histogram :

*** Histogram is only possible with continuous value. Bar chart is produced instead*

Histogram(Bar chart) of Live Now



Histogram(Bar chart) of Live IDEAL



4.b)

	frequencies	percentage	cumulativepercentage
C	32	32	32

Most adults live in City(C)

4.c)

	frequencies	percentage	cumulativepercentage
T	30	30	100

Most adults consider ideal community in Small Town (T)

4.d)

	C	R	S	T
C	15	5	6	6
R	0	10	3	3
S	6	2	13	5
T	3	4	3	16

Adults’ density will be normalized in city and rural areas.

