A national insurance organization wanted to study the consumption pattern of cigarettes in all 50 states and the District of Columbia. The variables chosen for the study are

Variable	Definition
Age	Median age of the a person living in a state
HS	Percentage of people over 25 years of age in a state who had completed high school
Income	Per capita personal income for a state in dollars
Black	Percentage of blacks living in a state
Female	Percentage of females living in a state
Price	Weighted average price (in cents) of a pack of cigarettes in a state
Sales	Number of packs of cigarettes sold in a state on a per capita basis

Find an appropriate model to predict sales using the variables Age, HS, Income, Black and Female. (make sure to eliminate the variables that are not significant). Find the 95% confidence intervals for the coefficients that are statistically different from 0 and write a short report in which you interpret your results. The data is in the file DATACIGARETTE.txt. Use again file.choose() to find where you saved it. it is a .txt file use sep="" where reading it into R

```
> data<-read.table("/Users/HElbarmi/Desktop/EDA/Regressin/DATACIGARETTE.txt", head
> data
   State  Age   HS Income Black Female Price Sales
1     AL 27.0 41.3   2948  26.2   51.7  42.7  89.8
2     AK 22.9 66.7   4644   3.0   45.7  41.8 121.3
3     AZ 26.3 58.1   3665   3.0   50.8  38.5 115.2
4     AR 29.1 39.9   2878  18.3   51.5  38.8 100.3
5     CA 28.1 62.6   4493   7.0   50.8  39.7 123.0
6     CO 26.2 63.9   3855   3.0   50.7  31.1 124.8
7     CT 29.1 56.0   4917   6.0   51.5  45.5 120.0
8     DE 26.8 54.6   4524  14.3   51.3  41.3 155.0
9     DC 28.4 55.2   5079  71.1   53.5  32.6 200.4
10    FL 32.3 52.6   3738  15.3   51.8  43.8 123.6
11    GA 25.9 40.6   3354  25.9   51.4  35.8 109.9
12    HI 25.0 61.9   4623   1.0   48.0  36.7  82.1
13    ID 26.4 59.5   3290   0.3   50.1  33.6 102.4
14    IL 28.6 52.6   4507  12.8   51.5  41.4 124.8
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15	IN	27.2	52.9	3772	6.9	51.3	32.2	134.6
16	IO	28.8	59.0	3751	1.2	51.4	38.5	108.5
17	KA	28.7	59.9	3853	4.8	51.0	38.9	114.0
18	KY	27.5	38.5	3112	7.2	50.9	30.1	155.8
19	LA	24.8	42.2	3090	29.8	51.4	39.3	115.9
20	ME	28.0	54.7	3302	0.3	51.3	38.8	128.5
21	MD	27.1	52.3	4309	17.8	51.1	34.2	123.5
22	MA	29.0	58.5	4340	3.1	52.2	41.0	124.3
23	MI	26.3	52.8	4180	11.2	51.0	39.2	128.6
24	MN	26.8	57.6	3859	0.9	51.0	40.1	104.3
25	MS	25.1	41.0	2626	36.8	51.6	37.5	93.4
26	MO	29.4	48.8	3781	10.3	51.8	36.8	121.3
27	MT	27.1	59.2	3500	0.3	50.0	34.7	111.2
28	NB	28.6	59.3	3789	2.7	51.2	34.7	108.1
29	NV	27.8	65.2	4563	5.7	49.3	44.0	189.5
30	NH	28.0	57.6	3737	0.3	51.1	34.1	265.7
31	NJ	30.1	52.5	4701	10.8	51.6	41.7	120.7
32	NM	23.9	55.2	3077	1.9	50.7	41.7	90.0
33	NY	30.3	52.7	4712	11.9	52.2	41.7	119.0
34	NC	26.5	38.5	3252	22.2	51.0	29.4	172.4
35	ND	26.4	50.3	3086	0.4	49.5	38.9	93.8
36	OH	27.7	53.2	4020	9.1	51.5	38.1	121.6
37	OK	29.4	51.6	3387	6.7	51.3	39.8	108.4
38	OR	29.0	60.0	3719	1.3	51.0	29.0	157.0
39	PA	30.7	50.2	3971	8.0	52.0	44.7	107.3
40	RI	29.2	46.4	3959	2.7	50.9	40.2	123.9
41	SC	24.8	37.8	2990	30.5	50.9	34.3	103.6
42	SD	27.4	53.3	3123	0.3	50.3	38.5	92.7
43	TN	28.1	41.8	3119	15.8	51.6	41.6	99.8
44	TX	26.4	47.4	3606	12.5	51.0	42.0	106.4
45	UT	23.1	67.3	3227	0.6	50.6	36.6	65.5
46	VT	26.8	57.1	3468	0.2	51.1	39.5	122.6
47	VA	26.8	47.8	3712	18.5	50.6	30.2	124.3
48	WA	27.5	63.5	4053	2.1	50.3	40.3	96.7
49	WV	30.0	41.6	3061	3.9	51.6	41.6	114.5
50	WI	27.2	54.5	3812	2.9	50.9	40.2	106.4
51	WY	27.2	62.9	3815	0.8	50.0	34.4	132.2