

**Sardar Patel Institute of Technology**  
**(Electronics & Telecommunication Department)**



**Data Analytics**

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**Aim:** To practice commands in SAS Software

**Dataset:** The dataset I used was the SAS application's built-in HEART dataset.

**Code:**

```
data df;

set sashelp.heart;

if Chol_Status='Desirable' then Chol_Status=0;
if Chol_Status='Borderline' then Chol_Status=1;
if Chol_Status='High' then Chol_Status=2;
if BP_Status='Normal' then BP_Status=0;
if BP_Status='Optimal' then BP_Status=1;
if BP_Status='High' then BP_Status=2;
if Weight_Status='Overweight' then Weight_Status=1;
if Weight_Status='Normal' then Weight_Status=0;
if Sex='Female' then Sex=1;
if Sex='Male' then Sex=0;
if Status='Alive' then Status=1;
if Status='Dead' then Status=0;

proc print data=df(obs=10);

proc sgplot data=df;
vbar DeathCause;

run;

title "Sex by Smoking Status";

proc sgpie data=sashelp.heart;
    donut sex / response=Smoking datalabeldisplay=(response);
run;

title;
```

```
proc sgplot data=sashelp.heart;
```

```
  hbar smoking_status /
```

```
    response=ageatdeath
```

```
    stat=mean;
```

```
run;
```

```
proc sgpanel data=sashelp.heart;
```

```
  panelby sex;
```

```
  vbar smoking_status /
```

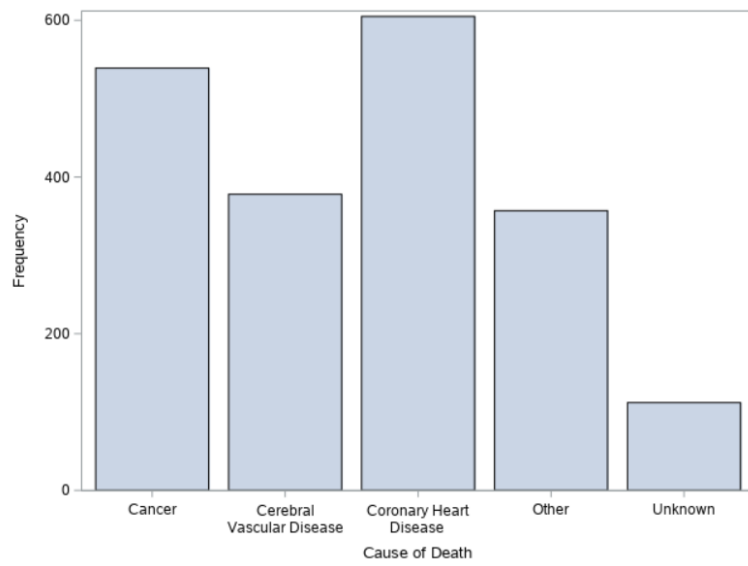
```
    response=ageatdeath
```

```
    stat=mean;
```

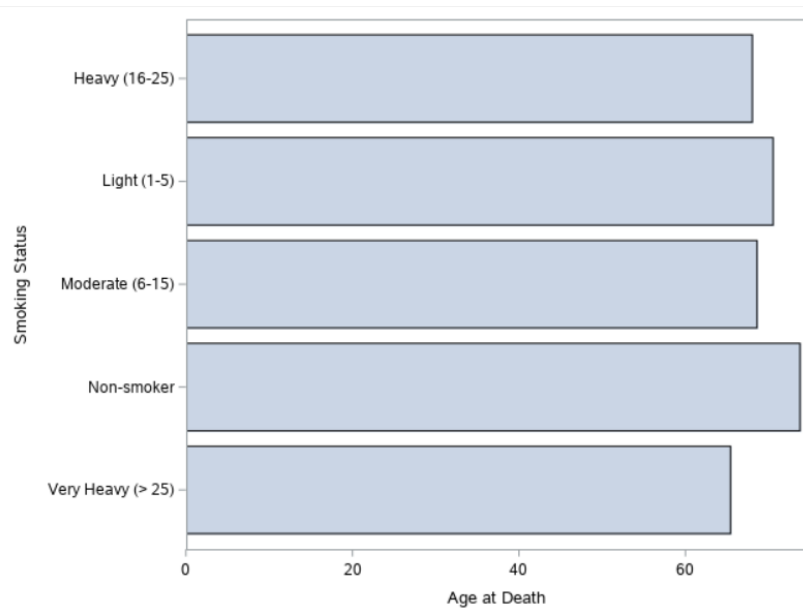
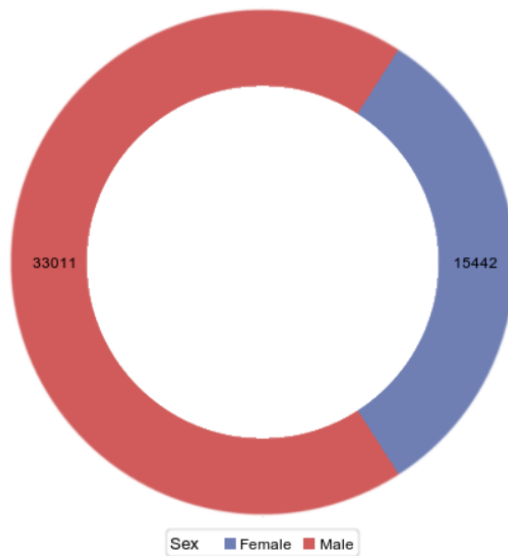
```
run;
```

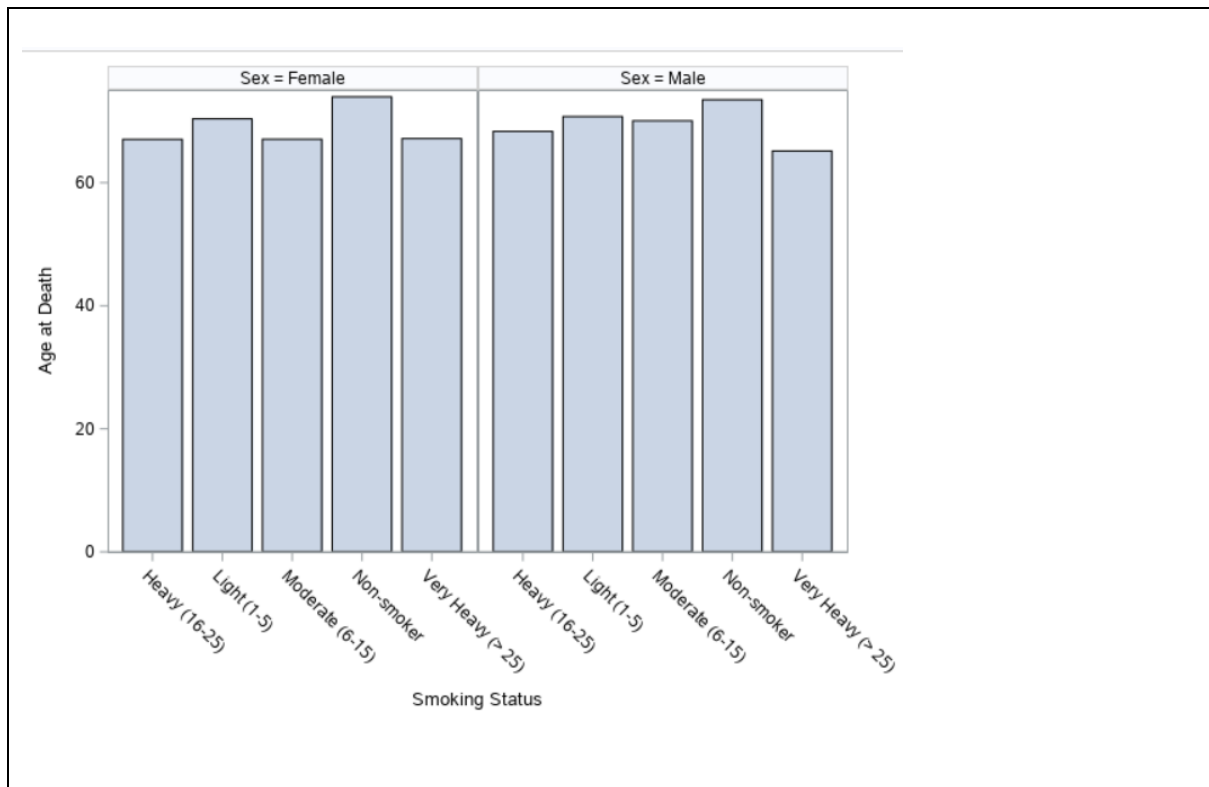
## Ouptut:

Status	DeathCause	AgeCHDdiag	Sex	AgeAtStart	Height	Weight	Diastolic	Systolic	MRW	Smoking	AgeAtDeath	Cholesterol	Chol_Status	BP_Status	Weight_Status	Smoking_Status
0	Other	.	1	29	62.50	140	78	124	121	0	55	.	.	0	1	Non-smoker
0	Cancer	.	1	41	59.75	194	92	144	183	0	57	181	0	2	1	Non-smoker
1		.	1	57	62.25	132	90	170	114	10	.	250	2	2	1	Moderate (6-15)
1		.	1	39	65.75	158	80	128	123	0	.	242	2	0	1	Non-smoker
1		.	0	42	66.00	156	76	110	116	20	.	281	2	1	1	Heavy (16-25)
1		.	1	58	61.75	131	92	176	117	0	.	196	0	2	1	Non-smoker
1		.	1	36	64.75	136	80	112	110	15	.	196	0	0	1	Moderate (6-15)
0	Other	.	0	53	65.50	130	80	114	99	0	77	276	2	0	0	Non-smoker
1		.	0	35	71.00	194	68	132	124	0	.	211	1	0	1	Non-smoker
0	Cerebral Vascular Disease	.	0	52	62.50	129	78	124	106	5	82	284	2	0	0	Light (1-5)



Sex by Smoking Status





## Conclusion:

As we can see from the figures

Fig1: As per the chart, most of the people die from Coronary heart disease

Fig2: As per the pie chart, we can see that there are more male smokers than female

Fig3: As per the chart, heavy smokers die early compared to others.

Fig4: As per the chart, we have compared the ages at which female and male smokers die.