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# By submitting this assignment, I agree to the following:
# "Aggies do not lie, cheat, or steal, or tolerate those who do."
# "I have not given or received any unauthorized aid on this assignment."
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# Section: 219
# Assignment: Lab5a_Act1
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Lab 5a Planning

Variables Needed:

- sex ("m"/"f")
- age (> 0)
- smoker (True / False)
- total_cholesterol (mg/dL)
- HDL_cholesterol (mg/dL)
- systolic BP (mmHg)
- blood_pressure_medicine (Y/N)

Steps:

1. Conditional statement for gender
2. Assign points for age
3. Assign points for total cholesterol
4. Assign points for smoker/nonsmoker
5. Assign points for HDL cholesterol
6. Check if treated for blood pressure
 - a. Assign points for Systolic BP accordingly

Test Cases:

	sex ("m"/"f")	age (> 0)	smoker (True / False)	total_cholesterol (mg/dL)	HDL_cholesterol (mg/dL)	systolic_BP (mmHg)	blood_pressure_medicati on (Y/N)	Output expected
Normal Cases								
1	m	28	False	178	100	210	N	<1
2	m	21	True	170	90	170	Y	1

3	m	66	False	230	80	155	Y	12
4	m	35	False	250	70	145	N	2
5	m	73	True	300	55	135	Y	>=30
6	f	47	False	1000	45	125	Y	5
7	f	56	True	0	35	117	N	2
8	f	61	True	100	20	100	N	2
9	f	76	False	150	0	57	Y	6
10	f	52	False	50	17	0	Y	<1
	sex ("m"/"f")	age (> 0)	smoker (True / False)	total_chol esterol (mg/dL)	HDL_cho lesterol (mg/dL)	systolic BP (mmHg)	blood_pr essure_ medicati on (Y/N)	Output expected
Edge Cases								
11	m	20	False	160	60	0	y	<1
12	m	34	False	199	50	100	y	<1
13	m	35	False	200	59	120	y	1
14	m	39	False	239	40	129	y	2
15	m	40	False	240	49	139	y	5
16	m	54	False	279	59	159	y	10
17	m	59	False	280	40	160	y	>=30
18	m	64	True	200	49	200	y	21
19	m	69	True	239	50	0	n	13
	sex ("m"/"f")	age (> 0)	smoker (True / False)	total_chol esterol (mg/dL)	HDL_cho lesterol (mg/dL)	systolic BP (mmHg)	blood_pr essure_ medicati on (Y/N)	Output expected
20	m	74	True	240	59	100	n	14
21	m	79	True	240	40	120	n	15
22	m	75	True	279	49	129	n	16

23	m	70	True	280	59	139	n	15
24	f	20	False	200	40	159	n	5
25	f	34	False	240	59	160	n	8
26	f	35	False	279	40	200	n	13
27	f	39	False	280	49	0	N	11
28	f	40	False	200	50	100	N	6
29	f	54	False	200	59	120	N	11
	sex ("m"/"f")	age (> 0)	smoker (True / False)	total_chol esterol (mg/dL)	HDL_cho lesterol (mg/dL)	systolic BP (mmHg)	blood_pr essure_ medicati on (Y/N)	Output expected
30	f	59	False	239	40	129	N	2
31	f	64	True	240	60	139	N	4
32	f	69	True	279	50	159	N	11
33	f	74	True	280	59	160	Y	14
34	f	79	True	200	40	200	Y	>=30
35	f	75	True	239	49	399	Y	>=30
Corner Cases								
36	F	20	False	20	20	20	y	<1
37	F	99999	False	140	99	120	y	6
38	F	0	False	300	1010 10	999	n	1
39	M	10	True	5	30	94	n	1
40	m	10	False	2	30	10	n	<1

Men

Estimate of 10-Year Risk for Men

(Framingham Point Scores)

Age	Points
20-34	-9
35-39	-4
40-44	0
45-49	3
50-54	6
55-59	8
60-64	10
65-69	11
70-74	12
75-79	13

Total Cholesterol	Points				
	Age 20-39	Age 40-49	Age 50-59	Age 60-69	Age 70-79
<160	0	0	0	0	0
160-199	4	3	2	1	0
200-239	7	5	3	1	0
240-279	9	6	4	2	1
≥280	11	8	5	3	1

	Points				
	Age 20-39	Age 40-49	Age 50-59	Age 60-69	Age 70-79
Nonsmoker	0	0	0	0	0
Smoker	8	5	3	1	1

HDL (mg/dL)	Points
≥60	-1
50-59	0
40-49	1
<40	2

Systolic BP (mmHg)	If Untreated	If Treated
<120	0	0
120-129	0	1
130-139	1	2
140-159	1	2
≥160	2	3

Point Total	10-Year Risk %
<0	< 1
0	1
1	1
2	1
3	1
4	1
5	2
6	2
7	3
8	4
9	5
10	6
11	8
12	10
13	12
14	16
15	20
16	25
≥17	≥ 30

10-Year risk _____ %

Women

Estimate of 10-Year Risk for Women

(Framingham Point Scores)

Age	Points
20-34	-7
35-39	-3
40-44	0
45-49	3
50-54	6
55-59	8
60-64	10
65-69	12
70-74	14
75-79	16

Total Cholesterol	Points				
	Age 20-39	Age 40-49	Age 50-59	Age 60-69	Age 70-79
<160	0	0	0	0	0
160-199	4	3	2	1	1
200-239	8	6	4	2	1
240-279	11	8	5	3	2
≥280	13	10	7	4	2

	Points				
	Age 20-39	Age 40-49	Age 50-59	Age 60-69	Age 70-79
Nonsmoker	0	0	0	0	0
Smoker	9	7	4	2	1

HDL (mg/dL)	Points
≥60	-1
50-59	0
40-49	1
<40	2

Systolic BP (mmHg)	If Untreated	If Treated
<120	0	0
120-129	1	3
130-139	2	4
140-159	3	5
≥160	4	6

Point Total	10-Year Risk %
< 9	< 1
9	1
10	1
11	1
12	1
13	2
14	2
15	3
16	4
17	5
18	6
19	8
20	11
21	14
22	17
23	22
24	27
≥25	≥ 30

10-Year risk _____ %



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	sex ("m"/"f")	age (> 0)	smoker (True / False)	total_chol esterol (mg/dL)	HDL_cho lesterol (mg/dL)	systolic BP (mmHg)	blood_pr essure_ medicati on (Y/N)	Output expected
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