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"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: 209

Assignment: Lab 5a - 1

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FIRST TASK: Collect all the types of data we need to calculate risk using the input() function.

- Sex (M/F)
- Age (years)
- Smoker (Y/N)
- Total cholesterol (mg/dL)
- HDL cholesterol (mg/dL)
- Systolic BP (mmHg)
- Taking blood pressure medication (Y/N)

SECOND TASK: Create a sequence of steps that you will follow

- Check if age is within range
- Check if Male or Female
- Depending on M or F, check age and add corresponding score
- Check total cholesterol and depending on age add corresponding score
- Check if smoker or nonsmoker and add corresponding score for age and sex
- Check HDL cholesterol and add corresponding score
- Check systolic blood pressure and based on if treated or not assign points based on this
- Check the final total score and return the %risk for the person based on the point total that they had.
- If age is out of range, print an error message

TEST CASES:

Case	Sex	Age	Smoker	Total Cholesterol	HDL Cholesterol	Systolic BP	Taking BP medication	Score/ Risk	Type of test
1	M	20	Y	160	65	125	Y	-1 (<1%)	Edge (age, total cholesterol)
2	M	26	Y	172	59	127	Y	4 (1%)	Edge (HDL)
3	M	35	Y	184	58	131	Y	10 (6%)	Edge (age)
4	M	38	Y	196	56	132	Y	10 (6%)	Typical
5	M	40	Y	208	55	134	Y	12 (10%)	Edge (age)
6	M	50	Y	220	54	137	N	13 (12%)	Edge (age)
7	M	67	Y	232	52	139	N	14 (16%)	Edge (systolic BP)
8	M	70	Y	244	50	140	N	15 (20%)	Edge (age, HDL)
9	M	80	Y	256	47	141	N	N/A	Corner (age)
10	M	18	Y	280	38	129	N	N/A	Corner (age, total cholesterol)
11	M	20	N	280	65	125	Y	2 (1%)	Edge (age, total cholesterol)
12	M	26	N	256	59	127	Y	-1 (<1%)	Edge (HDL Cholesterol, systolic BP)
13	M	34	N	244	58	131	Y	2 (1%)	Edge (age, HDL)
14	M	38	N	232	56	132	Y	5 (2%)	Typical
15	M	44	N	220	55	134	Y	7 (3%)	Edge (Age)
16	M	54	N	208	54	137	N	10 (6%)	Edge (Age)

17	M	67	N	196	52	139	N	13 (12%)	Edge (systolic BP)
18	M	75	N	184	50	140	N	14 (16%)	Edge (Age, HDL, systolic BP)
19	M	80	N	172	47	141	N	N/A	Corner (Age)
20	M	18	N	160	38	129	N	N/A	Corner (Age, total cholesterol, HDL, systolic BP)
21	F	20	Y	280	65	125	Y	17 (5%)	Edge (Age, total cholesterol, HDL)
22	F	26	Y	256	59	127	Y	18 (6%)	Edge (HDL)
23	F	39	Y	244	58	131	Y	21 (14%)	Edge (Age)
24	F	38	Y	232	56	132	Y	18 (6%)	Typical
25	F	42	Y	220	55	134	Y	17 (5%)	Typical
26	F	52	Y	208	54	137	N	12 (1%)	Typical
27	F	69	Y	196	52	139	N	16 (4%)	Edge (Age, systolic BP)
28	F	74	Y	184	50	140	N	19 (8%)	Edge (Age, HDL, systolic BP)
29	F	79	Y	172	47	141	N	22 (17%)	Edge (Age)
30	F	18	Y	160	38	129	N	N/A	Corner (Age, total cholesterol, systolic BP)
31	F	20	N	160	65	125	Y	-1 (<1%)	Edge (Age, total cholesterol, HDL)
32	F	26	N	172	59	127	Y	0 (<1%)	Edge (HDL)
33	F	35	N	184	58	131	Y	5 (<1%)	Edge (Age)
34	F	38	N	196	56	132	Y	5 (<1%)	Typical

35	F	46	N	208	55	134	Y	13 (2%)	Typical
36	F	56	N	220	54	137	N	14 (2%)	Typical
37	F	74	N	232	52	139	N	17 (5%)	Edge (Age)
38	F	75	N	244	50	140	N	21 (14%)	Edge (Age, Systolic BP)
39	F	80	N	256	47	141	N	N/A	Corner (Age)
40	F	79	Y	280	38	161	Y	27 (≥30%)	Edge (Age, total cholesterol, HDL, Systolic BP)