**Cleveland Heart Disease data**

63.0,1.0,1.0,145.0,233.0,1.0,2.0,150.0,0.0,2.3,3.0,0.0,6.0,0

67.0,1.0,4.0,160.0,286.0,0.0,2.0,108.0,1.0,1.5,2.0,3.0,3.0,1

67.0,1.0,4.0,120.0,229.0,0.0,2.0,129.0,1.0,2.6,2.0,2.0,7.0,1

37.0,1.0,3.0,130.0,250.0,0.0,0.0,187.0,0.0,3.5,3.0,0.0,3.0,0

41.0,0.0,2.0,130.0,204.0,0.0,2.0,172.0,0.0,1.4,1.0,0.0,3.0,0

56.0,1.0,2.0,120.0,236.0,0.0,0.0,178.0,0.0,0.8,1.0,0.0,3.0,0

62.0,0.0,4.0,140.0,268.0,0.0,2.0,160.0,0.0,3.6,3.0,2.0,3.0,1

57.0,0.0,4.0,120.0,354.0,0.0,0.0,163.0,1.0,0.6,1.0,0.0,3.0,0

63.0,1.0,4.0,130.0,254.0,0.0,2.0,147.0,0.0,1.4,2.0,1.0,7.0,1

53.0,1.0,4.0,140.0,203.0,1.0,2.0,155.0,1.0,3.1,3.0,0.0,7.0,1

57.0,1.0,4.0,140.0,192.0,0.0,0.0,148.0,0.0,0.4,2.0,0.0,6.0,0

56.0,0.0,2.0,140.0,294.0,0.0,2.0,153.0,0.0,1.3,2.0,0.0,3.0,0

56.0,1.0,3.0,130.0,256.0,1.0,2.0,142.0,1.0,0.6,2.0,1.0,6.0,1

44.0,1.0,2.0,120.0,263.0,0.0,0.0,173.0,0.0,0.0,1.0,0.0,7.0,0

52.0,1.0,3.0,172.0,199.0,1.0,0.0,162.0,0.0,0.5,1.0,0.0,7.0,0

57.0,1.0,3.0,150.0,168.0,0.0,0.0,174.0,0.0,1.6,1.0,0.0,3.0,0

48.0,1.0,2.0,110.0,229.0,0.0,0.0,168.0,0.0,1.0,3.0,0.0,7.0,1

54.0,1.0,4.0,140.0,239.0,0.0,0.0,160.0,0.0,1.2,1.0,0.0,3.0,0

48.0,0.0,3.0,130.0,275.0,0.0,0.0,139.0,0.0,0.2,1.0,0.0,3.0,0

49.0,1.0,2.0,130.0,266.0,0.0,0.0,171.0,0.0,0.6,1.0,0.0,3.0,0

64.0,1.0,1.0,110.0,211.0,0.0,2.0,144.0,1.0,1.8,2.0,0.0,3.0,0

58.0,0.0,1.0,150.0,283.0,1.0,2.0,162.0,0.0,1.0,1.0,0.0,3.0,0

58.0,1.0,2.0,120.0,284.0,0.0,2.0,160.0,0.0,1.8,2.0,0.0,3.0,1

58.0,1.0,3.0,132.0,224.0,0.0,2.0,173.0,0.0,3.2,1.0,2.0,7.0,1

60.0,1.0,4.0,130.0,206.0,0.0,2.0,132.0,1.0,2.4,2.0,2.0,7.0,1

50.0,0.0,3.0,120.0,219.0,0.0,0.0,158.0,0.0,1.6,2.0,0.0,3.0,0

58.0,0.0,3.0,120.0,340.0,0.0,0.0,172.0,0.0,0.0,1.0,0.0,3.0,0

66.0,0.0,1.0,150.0,226.0,0.0,0.0,114.0,0.0,2.6,3.0,0.0,3.0,0

43.0,1.0,4.0,150.0,247.0,0.0,0.0,171.0,0.0,1.5,1.0,0.0,3.0,0

40.0,1.0,4.0,110.0,167.0,0.0,2.0,114.0,1.0,2.0,2.0,0.0,7.0,1

69.0,0.0,1.0,140.0,239.0,0.0,0.0,151.0,0.0,1.8,1.0,2.0,3.0,0

60.0,1.0,4.0,117.0,230.0,1.0,0.0,160.0,1.0,1.4,1.0,2.0,7.0,1

64.0,1.0,3.0,140.0,335.0,0.0,0.0,158.0,0.0,0.0,1.0,0.0,3.0,1

59.0,1.0,4.0,135.0,234.0,0.0,0.0,161.0,0.0,0.5,2.0,0.0,7.0,0

44.0,1.0,3.0,130.0,233.0,0.0,0.0,179.0,1.0,0.4,1.0,0.0,3.0,0

42.0,1.0,4.0,140.0,226.0,0.0,0.0,178.0,0.0,0.0,1.0,0.0,3.0,0

43.0,1.0,4.0,120.0,177.0,0.0,2.0,120.0,1.0,2.5,2.0,0.0,7.0,1

57.0,1.0,4.0,150.0,276.0,0.0,2.0,112.0,1.0,0.6,2.0,1.0,6.0,1

55.0,1.0,4.0,132.0,353.0,0.0,0.0,132.0,1.0,1.2,2.0,1.0,7.0,1

61.0,1.0,3.0,150.0,243.0,1.0,0.0,137.0,1.0,1.0,2.0,0.0,3.0,0

65.0,0.0,4.0,150.0,225.0,0.0,2.0,114.0,0.0,1.0,2.0,3.0,7.0,1

40.0,1.0,1.0,140.0,199.0,0.0,0.0,178.0,1.0,1.4,1.0,0.0,7.0,0

71.0,0.0,2.0,160.0,302.0,0.0,0.0,162.0,0.0,0.4,1.0,2.0,3.0,0

59.0,1.0,3.0,150.0,212.0,1.0,0.0,157.0,0.0,1.6,1.0,0.0,3.0,0

61.0,0.0,4.0,130.0,330.0,0.0,2.0,169.0,0.0,0.0,1.0,0.0,3.0,1

58.0,1.0,3.0,112.0,230.0,0.0,2.0,165.0,0.0,2.5,2.0,1.0,7.0,1

51.0,1.0,3.0,110.0,175.0,0.0,0.0,123.0,0.0,0.6,1.0,0.0,3.0,0

50.0,1.0,4.0,150.0,243.0,0.0,2.0,128.0,0.0,2.6,2.0,0.0,7.0,1

65.0,0.0,3.0,140.0,417.0,1.0,2.0,157.0,0.0,0.8,1.0,1.0,3.0,0

53.0,1.0,3.0,130.0,197.0,1.0,2.0,152.0,0.0,1.2,3.0,0.0,3.0,0

41.0,0.0,2.0,105.0,198.0,0.0,0.0,168.0,0.0,0.0,1.0,1.0,3.0,0

65.0,1.0,4.0,120.0,177.0,0.0,0.0,140.0,0.0,0.4,1.0,0.0,7.0,0

44.0,1.0,4.0,112.0,290.0,0.0,2.0,153.0,0.0,0.0,1.0,1.0,3.0,1

44.0,1.0,2.0,130.0,219.0,0.0,2.0,188.0,0.0,0.0,1.0,0.0,3.0,0

60.0,1.0,4.0,130.0,253.0,0.0,0.0,144.0,1.0,1.4,1.0,1.0,7.0,1

54.0,1.0,4.0,124.0,266.0,0.0,2.0,109.0,1.0,2.2,2.0,1.0,7.0,1

50.0,1.0,3.0,140.0,233.0,0.0,0.0,163.0,0.0,0.6,2.0,1.0,7.0,1

41.0,1.0,4.0,110.0,172.0,0.0,2.0,158.0,0.0,0.0,1.0,0.0,7.0,1

54.0,1.0,3.0,125.0,273.0,0.0,2.0,152.0,0.0,0.5,3.0,1.0,3.0,0

51.0,1.0,1.0,125.0,213.0,0.0,2.0,125.0,1.0,1.4,1.0,1.0,3.0,0

51.0,0.0,4.0,130.0,305.0,0.0,0.0,142.0,1.0,1.2,2.0,0.0,7.0,1

46.0,0.0,3.0,142.0,177.0,0.0,2.0,160.0,1.0,1.4,3.0,0.0,3.0,0

58.0,1.0,4.0,128.0,216.0,0.0,2.0,131.0,1.0,2.2,2.0,3.0,7.0,1

54.0,0.0,3.0,135.0,304.0,1.0,0.0,170.0,0.0,0.0,1.0,0.0,3.0,0

54.0,1.0,4.0,120.0,188.0,0.0,0.0,113.0,0.0,1.4,2.0,1.0,7.0,1

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60.0,1.0,3.0,140.0,185.0,0.0,2.0,155.0,0.0,3.0,2.0,0.0,3.0,1

54.0,1.0,3.0,150.0,232.0,0.0,2.0,165.0,0.0,1.6,1.0,0.0,7.0,0

59.0,1.0,4.0,170.0,326.0,0.0,2.0,140.0,1.0,3.4,3.0,0.0,7.0,1

46.0,1.0,3.0,150.0,231.0,0.0,0.0,147.0,0.0,3.6,2.0,0.0,3.0,1

65.0,0.0,3.0,155.0,269.0,0.0,0.0,148.0,0.0,0.8,1.0,0.0,3.0,0

67.0,1.0,4.0,125.0,254.0,1.0,0.0,163.0,0.0,0.2,2.0,2.0,7.0,1

62.0,1.0,4.0,120.0,267.0,0.0,0.0,099.0,1.0,1.8,2.0,2.0,7.0,1

65.0,1.0,4.0,110.0,248.0,0.0,2.0,158.0,0.0,0.6,1.0,2.0,6.0,1

44.0,1.0,4.0,110.0,197.0,0.0,2.0,177.0,0.0,0.0,1.0,1.0,3.0,1

65.0,0.0,3.0,160.0,360.0,0.0,2.0,151.0,0.0,0.8,1.0,0.0,3.0,0

60.0,1.0,4.0,125.0,258.0,0.0,2.0,141.0,1.0,2.8,2.0,1.0,7.0,1

51.0,0.0,3.0,140.0,308.0,0.0,2.0,142.0,0.0,1.5,1.0,1.0,3.0,0

48.0,1.0,2.0,130.0,245.0,0.0,2.0,180.0,0.0,0.2,2.0,0.0,3.0,0

58.0,1.0,4.0,150.0,270.0,0.0,2.0,111.0,1.0,0.8,1.0,0.0,7.0,1

45.0,1.0,4.0,104.0,208.0,0.0,2.0,148.0,1.0,3.0,2.0,0.0,3.0,0

53.0,0.0,4.0,130.0,264.0,0.0,2.0,143.0,0.0,0.4,2.0,0.0,3.0,0

39.0,1.0,3.0,140.0,321.0,0.0,2.0,182.0,0.0,0.0,1.0,0.0,3.0,0

68.0,1.0,3.0,180.0,274.0,1.0,2.0,150.0,1.0,1.6,2.0,0.0,7.0,1

52.0,1.0,2.0,120.0,325.0,0.0,0.0,172.0,0.0,0.2,1.0,0.0,3.0,0

44.0,1.0,3.0,140.0,235.0,0.0,2.0,180.0,0.0,0.0,1.0,0.0,3.0,0

47.0,1.0,3.0,138.0,257.0,0.0,2.0,156.0,0.0,0.0,1.0,0.0,3.0,0

53.0,0.0,3.0,128.0,216.0,0.0,2.0,115.0,0.0,0.0,1.0,0.0,3.0,0

53.0,0.0,4.0,138.0,234.0,0.0,2.0,160.0,0.0,0.0,1.0,0.0,3.0,0

51.0,0.0,3.0,130.0,256.0,0.0,2.0,149.0,0.0,0.5,1.0,0.0,3.0,0

66.0,1.0,4.0,120.0,302.0,0.0,2.0,151.0,0.0,0.4,2.0,0.0,3.0,0

62.0,0.0,4.0,160.0,164.0,0.0,2.0,145.0,0.0,6.2,3.0,3.0,7.0,1

62.0,1.0,3.0,130.0,231.0,0.0,0.0,146.0,0.0,1.8,2.0,3.0,7.0,0

44.0,0.0,3.0,108.0,141.0,0.0,0.0,175.0,0.0,0.6,2.0,0.0,3.0,0

63.0,0.0,3.0,135.0,252.0,0.0,2.0,172.0,0.0,0.0,1.0,0.0,3.0,0

52.0,1.0,4.0,128.0,255.0,0.0,0.0,161.0,1.0,0.0,1.0,1.0,7.0,1

59.0,1.0,4.0,110.0,239.0,0.0,2.0,142.0,1.0,1.2,2.0,1.0,7.0,1

60.0,0.0,4.0,150.0,258.0,0.0,2.0,157.0,0.0,2.6,2.0,2.0,7.0,1

52.0,1.0,2.0,134.0,201.0,0.0,0.0,158.0,0.0,0.8,1.0,1.0,3.0,0

48.0,1.0,4.0,122.0,222.0,0.0,2.0,186.0,0.0,0.0,1.0,0.0,3.0,0

45.0,1.0,4.0,115.0,260.0,0.0,2.0,185.0,0.0,0.0,1.0,0.0,3.0,0

34.0,1.0,1.0,118.0,182.0,0.0,2.0,174.0,0.0,0.0,1.0,0.0,3.0,0

57.0,0.0,4.0,128.0,303.0,0.0,2.0,159.0,0.0,0.0,1.0,1.0,3.0,0

71.0,0.0,3.0,110.0,265.0,1.0,2.0,130.0,0.0,0.0,1.0,1.0,3.0,0

49.0,1.0,3.0,120.0,188.0,0.0,0.0,139.0,0.0,2.0,2.0,3.0,7.0,1

54.0,1.0,2.0,108.0,309.0,0.0,0.0,156.0,0.0,0.0,1.0,0.0,7.0,0

59.0,1.0,4.0,140.0,177.0,0.0,0.0,162.0,1.0,0.0,1.0,1.0,7.0,1

57.0,1.0,3.0,128.0,229.0,0.0,2.0,150.0,0.0,0.4,2.0,1.0,7.0,1

61.0,1.0,4.0,120.0,260.0,0.0,0.0,140.0,1.0,3.6,2.0,1.0,7.0,1

39.0,1.0,4.0,118.0,219.0,0.0,0.0,140.0,0.0,1.2,2.0,0.0,7.0,1

61.0,0.0,4.0,145.0,307.0,0.0,2.0,146.0,1.0,1.0,2.0,0.0,7.0,1

56.0,1.0,4.0,125.0,249.0,1.0,2.0,144.0,1.0,1.2,2.0,1.0,3.0,1

52.0,1.0,1.0,118.0,186.0,0.0,2.0,190.0,0.0,0.0,2.0,0.0,6.0,0

43.0,0.0,4.0,132.0,341.0,1.0,2.0,136.0,1.0,3.0,2.0,0.0,7.0,1

62.0,0.0,3.0,130.0,263.0,0.0,0.0,097.0,0.0,1.2,2.0,1.0,7.0,1

41.0,1.0,2.0,135.0,203.0,0.0,0.0,132.0,0.0,0.0,2.0,0.0,6.0,0

58.0,1.0,3.0,140.0,211.0,1.0,2.0,165.0,0.0,0.0,1.0,0.0,3.0,0

35.0,0.0,4.0,138.0,183.0,0.0,0.0,182.0,0.0,1.4,1.0,0.0,3.0,0

63.0,1.0,4.0,130.0,330.0,1.0,2.0,132.0,1.0,1.8,1.0,3.0,7.0,1

65.0,1.0,4.0,135.0,254.0,0.0,2.0,127.0,0.0,2.8,2.0,1.0,7.0,1

48.0,1.0,4.0,130.0,256.0,1.0,2.0,150.0,1.0,0.0,1.0,2.0,7.0,1

63.0,0.0,4.0,150.0,407.0,0.0,2.0,154.0,0.0,4.0,2.0,3.0,7.0,1

51.0,1.0,3.0,100.0,222.0,0.0,0.0,143.0,1.0,1.2,2.0,0.0,3.0,0

55.0,1.0,4.0,140.0,217.0,0.0,0.0,111.0,1.0,5.6,3.0,0.0,7.0,1

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45.0,0.0,2.0,130.0,234.0,0.0,2.0,175.0,0.0,0.6,2.0,0.0,3.0,0

56.0,0.0,4.0,200.0,288.0,1.0,2.0,133.0,1.0,4.0,3.0,2.0,7.0,1

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51.0,1.0,3.0,094.0,227.0,0.0,0.0,154.0,1.0,0.0,1.0,1.0,7.0,0

29.0,1.0,2.0,130.0,204.0,0.0,2.0,202.0,0.0,0.0,1.0,0.0,3.0,0

51.0,1.0,4.0,140.0,261.0,0.0,2.0,186.0,1.0,0.0,1.0,0.0,3.0,0

43.0,0.0,3.0,122.0,213.0,0.0,0.0,165.0,0.0,0.2,2.0,0.0,3.0,0

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70.0,1.0,4.0,145.0,174.0,0.0,0.0,125.0,1.0,2.6,3.0,0.0,7.0,1

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59.0,1.0,2.0,140.0,221.0,0.0,0.0,164.0,1.0,0.0,1.0,0.0,3.0,0

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64.0,1.0,3.0,125.0,309.0,0.0,0.0,131.0,1.0,1.8,2.0,0.0,7.0,1

58.0,1.0,3.0,105.0,240.0,0.0,2.0,154.0,1.0,0.6,2.0,0.0,7.0,0

47.0,1.0,3.0,108.0,243.0,0.0,0.0,152.0,0.0,0.0,1.0,0.0,3.0,1

57.0,1.0,4.0,165.0,289.0,1.0,2.0,124.0,0.0,1.0,2.0,3.0,7.0,1

41.0,1.0,3.0,112.0,250.0,0.0,0.0,179.0,0.0,0.0,1.0,0.0,3.0,0

45.0,1.0,2.0,128.0,308.0,0.0,2.0,170.0,0.0,0.0,1.0,0.0,3.0,0

60.0,0.0,3.0,102.0,318.0,0.0,0.0,160.0,0.0,0.0,1.0,1.0,3.0,0

52.0,1.0,1.0,152.0,298.0,1.0,0.0,178.0,0.0,1.2,2.0,0.0,7.0,0

42.0,0.0,4.0,102.0,265.0,0.0,2.0,122.0,0.0,0.6,2.0,0.0,3.0,0

67.0,0.0,3.0,115.0,564.0,0.0,2.0,160.0,0.0,1.6,2.0,0.0,7.0,0

55.0,1.0,4.0,160.0,289.0,0.0,2.0,145.0,1.0,0.8,2.0,1.0,7.0,1

64.0,1.0,4.0,120.0,246.0,0.0,2.0,096.0,1.0,2.2,3.0,1.0,3.0,1

70.0,1.0,4.0,130.0,322.0,0.0,2.0,109.0,0.0,2.4,2.0,3.0,3.0,1

51.0,1.0,4.0,140.0,299.0,0.0,0.0,173.0,1.0,1.6,1.0,0.0,7.0,1

58.0,1.0,4.0,125.0,300.0,0.0,2.0,171.0,0.0,0.0,1.0,2.0,7.0,1

60.0,1.0,4.0,140.0,293.0,0.0,2.0,170.0,0.0,1.2,2.0,2.0,7.0,1

68.0,1.0,3.0,118.0,277.0,0.0,0.0,151.0,0.0,1.0,1.0,1.0,7.0,0

46.0,1.0,2.0,101.0,197.0,1.0,0.0,156.0,0.0,0.0,1.0,0.0,7.0,0

77.0,1.0,4.0,125.0,304.0,0.0,2.0,162.0,1.0,0.0,1.0,3.0,3.0,1

54.0,0.0,3.0,110.0,214.0,0.0,0.0,158.0,0.0,1.6,2.0,0.0,3.0,0

58.0,0.0,4.0,100.0,248.0,0.0,2.0,122.0,0.0,1.0,2.0,0.0,3.0,0

48.0,1.0,3.0,124.0,255.0,1.0,0.0,175.0,0.0,0.0,1.0,2.0,3.0,0

57.0,1.0,4.0,132.0,207.0,0.0,0.0,168.0,1.0,0.0,1.0,0.0,7.0,0

52.0,1.0,3.0,138.0,223.0,0.0,0.0,169.0,0.0,0.0,1.0,2.0,3.0,0

54.0,0.0,2.0,132.0,288.0,1.0,2.0,159.0,1.0,0.0,1.0,1.0,3.0,0

35.0,1.0,4.0,126.0,282.0,0.0,2.0,156.0,1.0,0.0,1.0,0.0,7.0,1

45.0,0.0,2.0,112.0,160.0,0.0,0.0,138.0,0.0,0.0,2.0,0.0,3.0,0

70.0,1.0,3.0,160.0,269.0,0.0,0.0,112.0,1.0,2.9,2.0,1.0,7.0,1

53.0,1.0,4.0,142.0,226.0,0.0,2.0,111.0,1.0,0.0,1.0,0.0,7.0,0

59.0,0.0,4.0,174.0,249.0,0.0,0.0,143.0,1.0,0.0,2.0,0.0,3.0,1

62.0,0.0,4.0,140.0,394.0,0.0,2.0,157.0,0.0,1.2,2.0,0.0,3.0,0

64.0,1.0,4.0,145.0,212.0,0.0,2.0,132.0,0.0,2.0,2.0,2.0,6.0,1

57.0,1.0,4.0,152.0,274.0,0.0,0.0,088.0,1.0,1.2,2.0,1.0,7.0,1

52.0,1.0,4.0,108.0,233.0,1.0,0.0,147.0,0.0,0.1,1.0,3.0,7.0,0

56.0,1.0,4.0,132.0,184.0,0.0,2.0,105.0,1.0,2.1,2.0,1.0,6.0,1

43.0,1.0,3.0,130.0,315.0,0.0,0.0,162.0,0.0,1.9,1.0,1.0,3.0,0

53.0,1.0,3.0,130.0,246.0,1.0,2.0,173.0,0.0,0.0,1.0,3.0,3.0,0

48.0,1.0,4.0,124.0,274.0,0.0,2.0,166.0,0.0,0.5,2.0,0.0,7.0,1

56.0,0.0,4.0,134.0,409.0,0.0,2.0,150.0,1.0,1.9,2.0,2.0,7.0,1

42.0,1.0,1.0,148.0,244.0,0.0,2.0,178.0,0.0,0.8,1.0,2.0,3.0,0

59.0,1.0,1.0,178.0,270.0,0.0,2.0,145.0,0.0,4.2,3.0,0.0,7.0,0

60.0,0.0,4.0,158.0,305.0,0.0,2.0,161.0,0.0,0.0,1.0,0.0,3.0,1

63.0,0.0,2.0,140.0,195.0,0.0,0.0,179.0,0.0,0.0,1.0,2.0,3.0,0

42.0,1.0,3.0,120.0,240.0,1.0,0.0,194.0,0.0,0.8,3.0,0.0,7.0,0

66.0,1.0,2.0,160.0,246.0,0.0,0.0,120.0,1.0,0.0,2.0,3.0,6.0,1

54.0,1.0,2.0,192.0,283.0,0.0,2.0,195.0,0.0,0.0,1.0,1.0,7.0,1

69.0,1.0,3.0,140.0,254.0,0.0,2.0,146.0,0.0,2.0,2.0,3.0,7.0,1

50.0,1.0,3.0,129.0,196.0,0.0,0.0,163.0,0.0,0.0,1.0,0.0,3.0,0

51.0,1.0,4.0,140.0,298.0,0.0,0.0,122.0,1.0,4.2,2.0,3.0,7.0,1

43.0,1.0,4.0,132.0,247.0,1.0,2.0,143.0,1.0,0.1,2.0,3.0,7.0,1

62.0,0.0,4.0,138.0,294.0,1.0,0.0,106.0,0.0,1.9,2.0,3.0,3.0,1

68.0,0.0,3.0,120.0,211.0,0.0,2.0,115.0,0.0,1.5,2.0,0.0,3.0,0

67.0,1.0,4.0,100.0,299.0,0.0,2.0,125.0,1.0,0.9,2.0,2.0,3.0,1

69.0,1.0,1.0,160.0,234.0,1.0,2.0,131.0,0.0,0.1,2.0,1.0,3.0,0

45.0,0.0,4.0,138.0,236.0,0.0,2.0,152.0,1.0,0.2,2.0,0.0,3.0,0

50.0,0.0,2.0,120.0,244.0,0.0,0.0,162.0,0.0,1.1,1.0,0.0,3.0,0

59.0,1.0,1.0,160.0,273.0,0.0,2.0,125.0,0.0,0.0,1.0,0.0,3.0,1

50.0,0.0,4.0,110.0,254.0,0.0,2.0,159.0,0.0,0.0,1.0,0.0,3.0,0

64.0,0.0,4.0,180.0,325.0,0.0,0.0,154.0,1.0,0.0,1.0,0.0,3.0,0

57.0,1.0,3.0,150.0,126.0,1.0,0.0,173.0,0.0,0.2,1.0,1.0,7.0,0

64.0,0.0,3.0,140.0,313.0,0.0,0.0,133.0,0.0,0.2,1.0,0.0,7.0,0

43.0,1.0,4.0,110.0,211.0,0.0,0.0,161.0,0.0,0.0,1.0,0.0,7.0,0

45.0,1.0,4.0,142.0,309.0,0.0,2.0,147.0,1.0,0.0,2.0,3.0,7.0,1

58.0,1.0,4.0,128.0,259.0,0.0,2.0,130.0,1.0,3.0,2.0,2.0,7.0,1

50.0,1.0,4.0,144.0,200.0,0.0,2.0,126.0,1.0,0.9,2.0,0.0,7.0,1

55.0,1.0,2.0,130.0,262.0,0.0,0.0,155.0,0.0,0.0,1.0,0.0,3.0,0

62.0,0.0,4.0,150.0,244.0,0.0,0.0,154.0,1.0,1.4,2.0,0.0,3.0,1

37.0,0.0,3.0,120.0,215.0,0.0,0.0,170.0,0.0,0.0,1.0,0.0,3.0,0

38.0,1.0,1.0,120.0,231.0,0.0,0.0,182.0,1.0,3.8,2.0,0.0,7.0,1

41.0,1.0,3.0,130.0,214.0,0.0,2.0,168.0,0.0,2.0,2.0,0.0,3.0,0

66.0,0.0,4.0,178.0,228.0,1.0,0.0,165.0,1.0,1.0,2.0,2.0,7.0,1

52.0,1.0,4.0,112.0,230.0,0.0,0.0,160.0,0.0,0.0,1.0,1.0,3.0,1

56.0,1.0,1.0,120.0,193.0,0.0,2.0,162.0,0.0,1.9,2.0,0.0,7.0,0

46.0,0.0,2.0,105.0,204.0,0.0,0.0,172.0,0.0,0.0,1.0,0.0,3.0,0

46.0,0.0,4.0,138.0,243.0,0.0,2.0,152.0,1.0,0.0,2.0,0.0,3.0,0

64.0,0.0,4.0,130.0,303.0,0.0,0.0,122.0,0.0,2.0,2.0,2.0,3.0,0

59.0,1.0,4.0,138.0,271.0,0.0,2.0,182.0,0.0,0.0,1.0,0.0,3.0,0

41.0,0.0,3.0,112.0,268.0,0.0,2.0,172.0,1.0,0.0,1.0,0.0,3.0,0

54.0,0.0,3.0,108.0,267.0,0.0,2.0,167.0,0.0,0.0,1.0,0.0,3.0,0

39.0,0.0,3.0,094.0,199.0,0.0,0.0,179.0,0.0,0.0,1.0,0.0,3.0,0

53.0,1.0,4.0,123.0,282.0,0.0,0.0,095.0,1.0,2.0,2.0,2.0,7.0,1

63.0,0.0,4.0,108.0,269.0,0.0,0.0,169.0,1.0,1.8,2.0,2.0,3.0,1

34.0,0.0,2.0,118.0,210.0,0.0,0.0,192.0,0.0,0.7,1.0,0.0,3.0,0

47.0,1.0,4.0,112.0,204.0,0.0,0.0,143.0,0.0,0.1,1.0,0.0,3.0,0

67.0,0.0,3.0,152.0,277.0,0.0,0.0,172.0,0.0,0.0,1.0,1.0,3.0,0

54.0,1.0,4.0,110.0,206.0,0.0,2.0,108.0,1.0,0.0,2.0,1.0,3.0,1

66.0,1.0,4.0,112.0,212.0,0.0,2.0,132.0,1.0,0.1,1.0,1.0,3.0,1

52.0,0.0,3.0,136.0,196.0,0.0,2.0,169.0,0.0,0.1,2.0,0.0,3.0,0

55.0,0.0,4.0,180.0,327.0,0.0,1.0,117.0,1.0,3.4,2.0,0.0,3.0,1

49.0,1.0,3.0,118.0,149.0,0.0,2.0,126.0,0.0,0.8,1.0,3.0,3.0,1

74.0,0.0,2.0,120.0,269.0,0.0,2.0,121.0,1.0,0.2,1.0,1.0,3.0,0

54.0,0.0,3.0,160.0,201.0,0.0,0.0,163.0,0.0,0.0,1.0,1.0,3.0,0

54.0,1.0,4.0,122.0,286.0,0.0,2.0,116.0,1.0,3.2,2.0,2.0,3.0,1

56.0,1.0,4.0,130.0,283.0,1.0,2.0,103.0,1.0,1.6,3.0,0.0,7.0,1

46.0,1.0,4.0,120.0,249.0,0.0,2.0,144.0,0.0,0.8,1.0,0.0,7.0,1

49.0,0.0,2.0,134.0,271.0,0.0,0.0,162.0,0.0,0.0,2.0,0.0,3.0,0

42.0,1.0,2.0,120.0,295.0,0.0,0.0,162.0,0.0,0.0,1.0,0.0,3.0,0

41.0,1.0,2.0,110.0,235.0,0.0,0.0,153.0,0.0,0.0,1.0,0.0,3.0,0

41.0,0.0,2.0,126.0,306.0,0.0,0.0,163.0,0.0,0.0,1.0,0.0,3.0,0

49.0,0.0,4.0,130.0,269.0,0.0,0.0,163.0,0.0,0.0,1.0,0.0,3.0,0

61.0,1.0,1.0,134.0,234.0,0.0,0.0,145.0,0.0,2.6,2.0,2.0,3.0,1

60.0,0.0,3.0,120.0,178.0,1.0,0.0,096.0,0.0,0.0,1.0,0.0,3.0,0

67.0,1.0,4.0,120.0,237.0,0.0,0.0,071.0,0.0,1.0,2.0,0.0,3.0,1

58.0,1.0,4.0,100.0,234.0,0.0,0.0,156.0,0.0,0.1,1.0,1.0,7.0,1

47.0,1.0,4.0,110.0,275.0,0.0,2.0,118.0,1.0,1.0,2.0,1.0,3.0,1

52.0,1.0,4.0,125.0,212.0,0.0,0.0,168.0,0.0,1.0,1.0,2.0,7.0,1

62.0,1.0,2.0,128.0,208.0,1.0,2.0,140.0,0.0,0.0,1.0,0.0,3.0,0

57.0,1.0,4.0,110.0,201.0,0.0,0.0,126.0,1.0,1.5,2.0,0.0,6.0,0

58.0,1.0,4.0,146.0,218.0,0.0,0.0,105.0,0.0,2.0,2.0,1.0,7.0,1

64.0,1.0,4.0,128.0,263.0,0.0,0.0,105.0,1.0,0.2,2.0,1.0,7.0,0

51.0,0.0,3.0,120.0,295.0,0.0,2.0,157.0,0.0,0.6,1.0,0.0,3.0,0

43.0,1.0,4.0,115.0,303.0,0.0,0.0,181.0,0.0,1.2,2.0,0.0,3.0,0

42.0,0.0,3.0,120.0,209.0,0.0,0.0,173.0,0.0,0.0,2.0,0.0,3.0,0

67.0,0.0,4.0,106.0,223.0,0.0,0.0,142.0,0.0,0.3,1.0,2.0,3.0,0

76.0,0.0,3.0,140.0,197.0,0.0,1.0,116.0,0.0,1.1,2.0,0.0,3.0,0

70.0,1.0,2.0,156.0,245.0,0.0,2.0,143.0,0.0,0.0,1.0,0.0,3.0,0

57.0,1.0,2.0,124.0,261.0,0.0,0.0,141.0,0.0,0.3,1.0,0.0,7.0,1

44.0,0.0,3.0,118.0,242.0,0.0,0.0,149.0,0.0,0.3,2.0,1.0,3.0,0

58.0,0.0,2.0,136.0,319.0,1.0,2.0,152.0,0.0,0.0,1.0,2.0,3.0,1

60.0,0.0,1.0,150.0,240.0,0.0,0.0,171.0,0.0,0.9,1.0,0.0,3.0,0

44.0,1.0,3.0,120.0,226.0,0.0,0.0,169.0,0.0,0.0,1.0,0.0,3.0,0

61.0,1.0,4.0,138.0,166.0,0.0,2.0,125.0,1.0,3.6,2.0,1.0,3.0,1

42.0,1.0,4.0,136.0,315.0,0.0,0.0,125.0,1.0,1.8,2.0,0.0,6.0,1

52.0,1.0,4.0,128.0,204.0,1.0,0.0,156.0,1.0,1.0,2.0,0.0,6.0,1

59.0,1.0,3.0,126.0,218.0,1.0,0.0,134.0,0.0,2.2,2.0,1.0,6.0,1

40.0,1.0,4.0,152.0,223.0,0.0,0.0,181.0,0.0,0.0,1.0,0.0,7.0,1

42.0,1.0,3.0,130.0,180.0,0.0,0.0,150.0,0.0,0.0,1.0,0.0,3.0,0

61.0,1.0,4.0,140.0,207.0,0.0,2.0,138.0,1.0,1.9,1.0,1.0,7.0,1

66.0,1.0,4.0,160.0,228.0,0.0,2.0,138.0,0.0,2.3,1.0,0.0,6.0,0

46.0,1.0,4.0,140.0,311.0,0.0,0.0,120.0,1.0,1.8,2.0,2.0,7.0,1

71.0,0.0,4.0,112.0,149.0,0.0,0.0,125.0,0.0,1.6,2.0,0.0,3.0,0

59.0,1.0,1.0,134.0,204.0,0.0,0.0,162.0,0.0,0.8,1.0,2.0,3.0,1

64.0,1.0,1.0,170.0,227.0,0.0,2.0,155.0,0.0,0.6,2.0,0.0,7.0,0

66.0,0.0,3.0,146.0,278.0,0.0,2.0,152.0,0.0,0.0,2.0,1.0,3.0,0

39.0,0.0,3.0,138.0,220.0,0.0,0.0,152.0,0.0,0.0,2.0,0.0,3.0,0

57.0,1.0,2.0,154.0,232.0,0.0,2.0,164.0,0.0,0.0,1.0,1.0,3.0,1

58.0,0.0,4.0,130.0,197.0,0.0,0.0,131.0,0.0,0.6,2.0,0.0,3.0,0

57.0,1.0,4.0,110.0,335.0,0.0,0.0,143.0,1.0,3.0,2.0,1.0,7.0,1

47.0,1.0,3.0,130.0,253.0,0.0,0.0,179.0,0.0,0.0,1.0,0.0,3.0,0

55.0,0.0,4.0,128.0,205.0,0.0,1.0,130.0,1.0,2.0,2.0,1.0,7.0,1

35.0,1.0,2.0,122.0,192.0,0.0,0.0,174.0,0.0,0.0,1.0,0.0,3.0,0

61.0,1.0,4.0,148.0,203.0,0.0,0.0,161.0,0.0,0.0,1.0,1.0,7.0,1

58.0,1.0,4.0,114.0,318.0,0.0,1.0,140.0,0.0,4.4,3.0,3.0,6.0,1

58.0,0.0,4.0,170.0,225.0,1.0,2.0,146.0,1.0,2.8,2.0,2.0,6.0,1

58.0,1.0,2.0,125.0,220.0,0.0,0.0,144.0,0.0,0.4,2.0,2.0,7.0,0

56.0,1.0,2.0,130.0,221.0,0.0,2.0,163.0,0.0,0.0,1.0,0.0,7.0,0

56.0,1.0,2.0,120.0,240.0,0.0,0.0,169.0,0.0,0.0,3.0,0.0,3.0,0

67.0,1.0,3.0,152.0,212.0,0.0,2.0,150.0,0.0,0.8,2.0,0.0,7.0,1

55.0,0.0,2.0,132.0,342.0,0.0,0.0,166.0,0.0,1.2,1.0,0.0,3.0,0

44.0,1.0,4.0,120.0,169.0,0.0,0.0,144.0,1.0,2.8,3.0,0.0,6.0,1

63.0,1.0,4.0,140.0,187.0,0.0,2.0,144.0,1.0,4.0,1.0,2.0,7.0,1

63.0,0.0,4.0,124.0,197.0,0.0,0.0,136.0,1.0,0.0,2.0,0.0,3.0,1

41.0,1.0,2.0,120.0,157.0,0.0,0.0,182.0,0.0,0.0,1.0,0.0,3.0,0

59.0,1.0,4.0,164.0,176.0,1.0,2.0,090.0,0.0,1.0,2.0,2.0,6.0,1

57.0,0.0,4.0,140.0,241.0,0.0,0.0,123.0,1.0,0.2,2.0,0.0,7.0,1

45.0,1.0,1.0,110.0,264.0,0.0,0.0,132.0,0.0,1.2,2.0,0.0,7.0,1

68.0,1.0,4.0,144.0,193.0,1.0,0.0,141.0,0.0,3.4,2.0,2.0,7.0,1

57.0,1.0,4.0,130.0,131.0,0.0,0.0,115.0,1.0,1.2,2.0,1.0,7.0,1

57.0,0.0,2.0,130.0,236.0,0.0,2.0,174.0,0.0,0.0,2.0,1.0,3.0,1

38.0,1.0,3.0,138.0,175.0,0.0,0.0,173.0,0.0,0.0,1.0,1.0,3.0,0

Attribute/Feature Information:

-- Only 14 used

-- 1. #3 (age in year)

-- 2. #4 (sex- 1=male, 0=female)

-- 3. #9 (cp chest pain type

-- Value 1: typical angina

-- Value 2: atypical angina

-- Value 3: non-anginal pain

-- Value 4: asymptomatic)

-- 4. #10 (trestbps: resting blood pressure (in mm Hg on admission to the

hospital)

-- 5. #12 (chol: serum cholestoral in mg/dl)

-- 6. #16 (fbs: fasting blood sugar > 120 mg/dl) (1 = true; 0 = false) )

-- 7. #19 (restecg : resting electrocardiographic results

-- Value 0: normal

-- Value 1: having ST-T wave abnormality (T wave inversions and/or ST

elevation or depression of > 0.05 mV)

-- Value 2: showing probable or definite left ventricular hypertrophy

by Estes' criteria )

-- 8. #32 (thalach:maximum heart rate achieved )

-- 9. #38 (exang : exercise induced angina (1 = yes; 0 = no))

-- 10. #40 (oldpeak: ST depression induced by exercise relative to rest)

-- 11. #41 (slope : the slope of the peak exercise ST segment

-- Value 1: upsloping

-- Value 2: flat

-- Value 3: downsloping )

-- 12. #44 (ca: number of major vessels (0-3) colored by flourosopy )

-- 13. #51 (thal: 3 = normal; 6 = fixed defect; 7 = reversable defect)

-- 14. #58 (num : diagnosis of heart disease (angiographic disease status)

-- Value 0: < 50% diameter narrowing, no heart disease

-- Value 1: > 50% diameter narrowing, heart disease