At first, I divided database of iris into 3 groups of small, medium and large, calculated avg and std for each of 3 groups and got Gaussian membership function of small, medium, and large:

- Gaussian membership function of small is $f(x) = \exp\left\{-\left(\frac{x-0.1556}{0.00447}\right)^2\right\}$;

- Gaussian membership function of medium is $f(x) = \exp\left\{-\left(\frac{x-0.6019}{0.004}\right)^2\right\}$;

- Gaussian membership function of large is $f(x) = \exp\left\{-\left(\frac{x-0.806}{0.006}\right)^2\right\}$;

Then I drew 3 Gaussian membership function of small, medium and large:
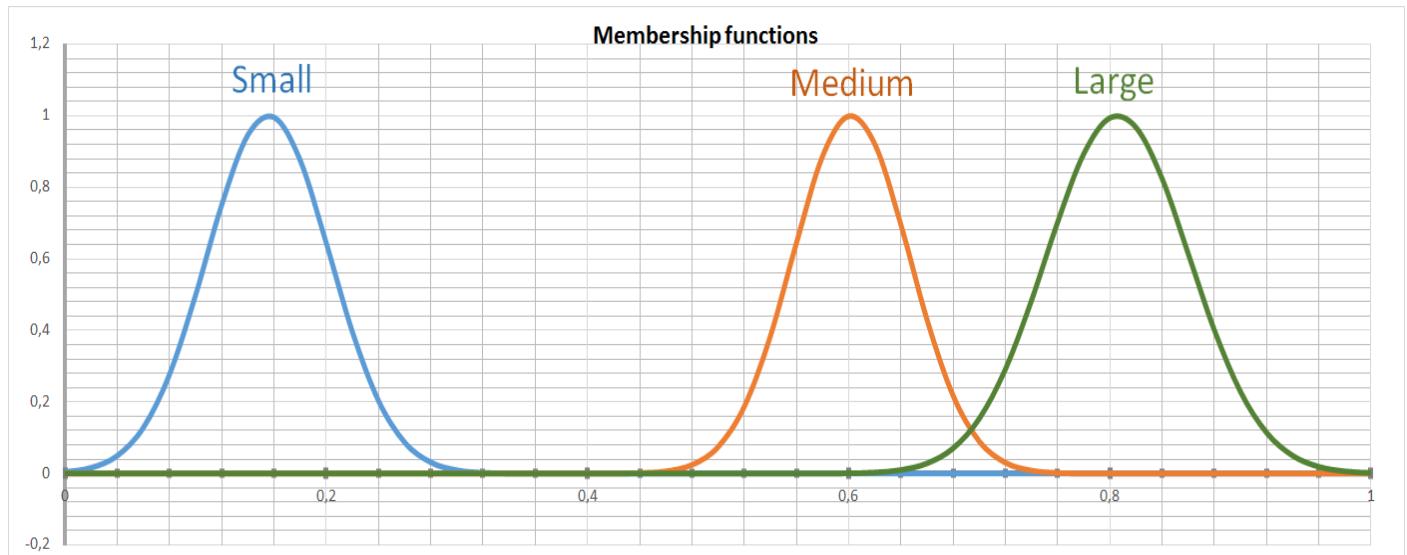
Then I created 3 rules for each family:

1. IF X1=medium AND X2=medium AND X3=small AND X4=small THEN Family-A
2. IF X1=large AND X2=medium AND X3=medium AND X4=medium THEN Family-B
3. IF X1=large AND X2=medium AND X3=large AND X4=large THEN Family-C

Then I evaluated 3 rules. According to the result I created table:

No.	Family A	Family B	Family C	Evaluation
	Rule -1	Rule - 2	Rule - 3	
	A or B or C or other	A or B or C or other	A or B or C or other	
#1	other	B	C	Not Good
#2	A	B	C	Good
#3	A	B	C	Good
#4	A	B	C	Good
#5	other	B	C	Not Good
#6	other	B	C	Not Good
#7	A	B	B	Not Good
#8	A	other	C	Not Good
Success rate	62,50%	87,50%	87,50%	37,50%