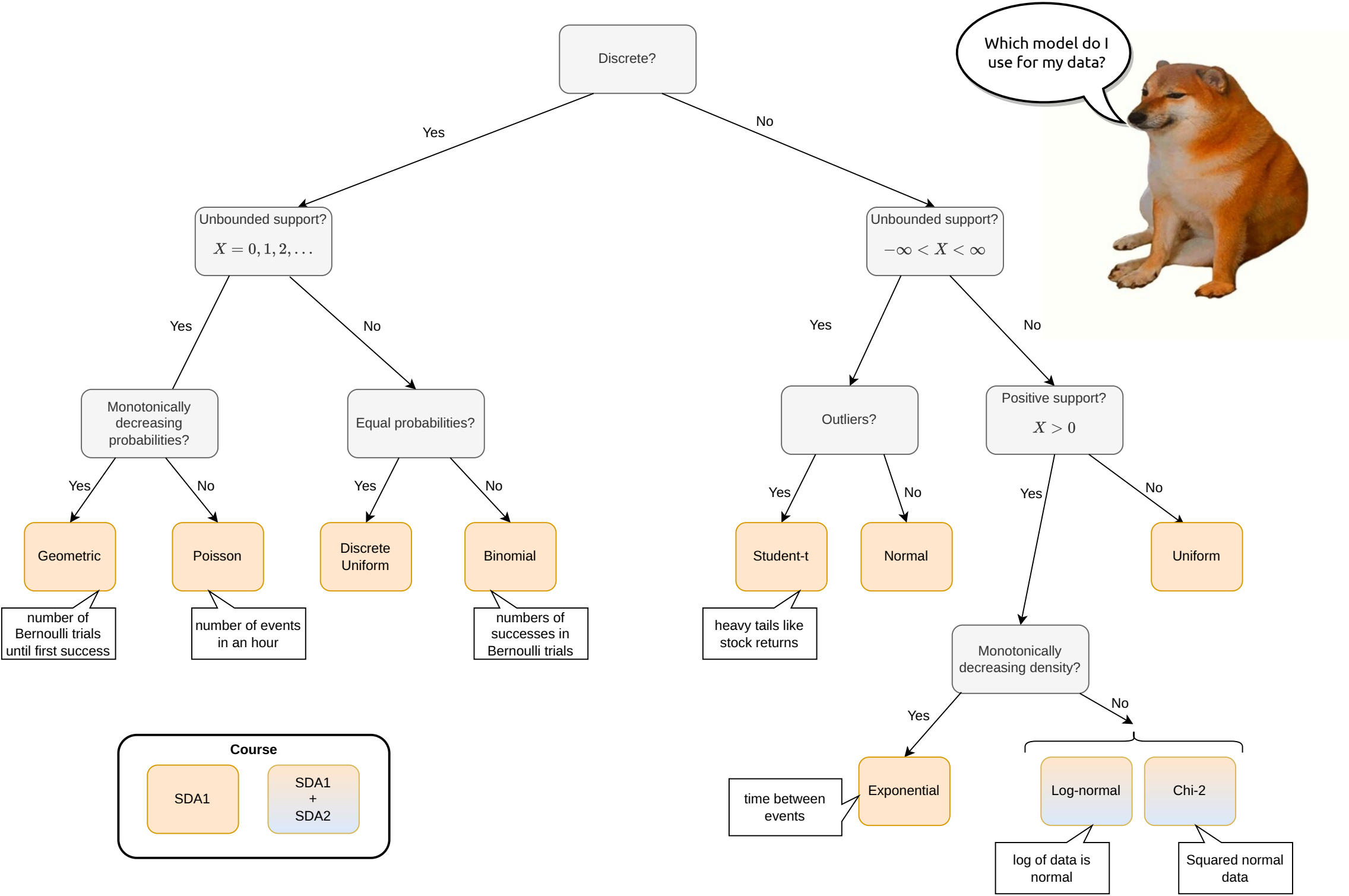
Which model do I use for my data?
Discrete?
Yes
No
Unbounded support?
$X = 0, 1, 2, \ldots$
Unbounded support?
$-\infty < X < \infty$
Yes
No
Monotonically decreasing probabilities?
Equal probabilities?
Yes
No
Yes
No
Geometric
Poisson
Discrete Uniform
Binomial
number of Bernoulli trials until first success
number of events in an hour
numbers of successes in Bernoulli trials
Yes
No
Outliers?
Positive support?
$X > 0$
Yes
No
Yes
No
Student-t
Normal
Uniform
heavy tails like stock returns
Monotonically decreasing density?
Yes
No
Exponential
time between events
Log-normal
Chi-2
log of data is normal
Squared normal data
Course
SDA1
SDA1 + SDA2