

ABSTRACT

In this final project will be discussed about how to model of how many on days and claims insurance companies went bankrupt for the first time, with the frequency of claims is distributed poisson and the size of claims is exponentially distributed. Data used in this final project is data of insurance company Z is claim date and payment of claim.

Insurance Company obtains funds derived from the accumulated reserves of initial funds owned by the insurer plus a constant premium received by the company multiplied by the number of insurance customers, then reduced by the number of claims issued. Declared bankruptcy for the first time if the value of funds owned by an insurance company symbolized by $U(t)$ is negative.

To calculate the funds of insurance companies, it will be simulated with the assumption of reserve fund of Rp 10.000.000.000 and premium rate of Rp 3000 to Rp 4000. After calculating the funds of the insurance company, it will be known on days and claims of how insurance companies went bankrupt for the first time.

Keywords: reserves, premiums, the size of claim, the frequency of claim, poisson distribution, exponential distribution, bankruptcy