

## ***Abstract***

*Along with the development of the Internet, the developers began to create a web-based applications or internet-based applications that increasingly pamper users with a variety of services offered. This web-based application can easily be used because the user does not need to perform the installation on their personal computer. However, in general all applications have one goal which is to meet and achieve customer satisfaction and to create a reliable system. Reliability or the reliability of the system will be one important factor in ensuring the quality of an application. Not a bit of web-based applications that have a low level of reliability and ultimately less attractive to users. Thus, the reliability of a system can be measured to ensure the quality of the application itself.*

*Reliability prediction is a way which can be done for predict the reliability of an application. By doing predictions at an early stage of development applications, the resulting output also has a much better reliability. One method that can be used to predict the reliability of a system is the Rayleigh method. Implementation of this method will be done since the early stages of system development. So, before the applications are used by users, the developer can already imagine the reliability of the applications. This prediction is also useful in improving the quality of the design process and decision-making to the next process.*

***Keywords:*** *web-based application, system reliability, reliability prediction, Rayleigh method.*