

ABSTRACT

Chicken breeders have been working every day for feeding, checking the availability of feed, and controlling the temperature of the livestock by going to the livestock directly, it will be difficult because it has to do it every day and again and again. In addition, these conditions will also take up the time and energy of the breeders because they have to check the availability of feed directly by coming to the livestock. For that we need a solution for checking and controlling the temperature can be done from anywhere, so farmers do not need to come every day to the livestock to check.

IBM Bluemix is a Cloud service - Platform as a Service. Bluemix can run various applications such as websites, mobile, big data and smart devices. IBM Bluemix has many features, one of the features that can be used is the Cloudant NoSQL DB database. With the help of these databases, an automated feed device with the concept of Internet of Things (IoT) can be delivered that can feed and temperature conditions in real time through the internet. The data can be stored in the Cloudant NoSQL DB, so that with the data from the automatic feed hardware can be made an android application to display the feed conditions and temperature in the cage by retrieving existing data on Cloudant NoSQL DB.

The design of automated internet-based livestock devices and applications can work as expected. Applications can be used for controlling and monitoring. Applications are made get MOS 4.7 ratings with good classification based on ITU-T standard and have a crash rate of 0%. Automatic livestock devices are made also can work well with the accuracy of the feed detector sensor of 100%. The IBM server used has the highest throguput of 379 bps and the lowest 50 bps, average packet loss of 0.19%.

Keywords: livestock, IBM, Cloudant NoSQL DB, Internet of Things, android