## Abstract

Purchase of items monthly household expenditure is necessary for every housewife or maid. Not many housewife or maid who forgot to buy items at the monthly expenditure when outside the home.

In this final project, the design of the data collection sistem built shopping goods by using Barcode Scanner. Then the results of data collection items will be received and stored by the Raspberry Pi and will be displayed on the LCD. Users can view the groceries that have been saved through SMS to make the request via mobile phone. The sistem can carry out a reminder to the user of the items already exceed the minimum stock using SIM900 GSM Shield.

Based on the results of tests performed, the sistem can input new items via SMS, then checking the items by using a scanner to make sure the goods have been entered in the database. After checking successfully, the sistem can perform addition and subtraction of goods if there are items that you want to add or items to be reduced. The sistem can also perform reminder items that are below minimum stock via SMS and receive SMS request from the user. The test results also get response time when reading the barcode scanner to display on the LCD with an average 0.055 ms and response times at the time of the request until the sistem performs the data transmission request obtained an average 12.30 seconds.

## Key Word : Barcode Scanner, Raspberry Pi, GSM Shield SIM900