

# Scrap-A Marketplace for Scrap and Tangible Waste

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**Abstract:** By selling and buying of scrap/waste materials manually, the customer have to visit the shop for selling the items, so he couldn't compare prices with the other stores and only a limited customers visit the store. It also quite time consuming for selling the scrap/waste materials.

We are developing an Android application to reduce the communication difficulty between buyer and seller. This application allows the visitors to buy scrap/waste materials online. They can view the contents at any time. It mechanically analyse the full amount and the details of buyer or seller convey as SMS to guest. The clients can advertise their scrap/waste by sitting in home, large quantity can be sold and it is a user-friendly Interface.

**Key Words:** Scrap/waste Management, Android, e-commerce, Scrap-App.

## 1. INTRODUCTION

Mobile commerce is facility which offers the buying and selling of goods all the way through wireless handheld devices for instance cellular telephone and personal digital assistants (PDAs).

The subsequent creation of e-commerce and m-commerce facilitate users to access the Internet without necessitate to discover a place to plug in.

As material deliverance above wireless devices turn out to be more rapid, extra protected, and scalable, there is wide assumption that m-commerce will exceed wire line e-commerce as the method of choice for digital commerce transactions.

SCRAPP is an app that will help users to browse products and communicate with the seller in matter of no time. A successful transaction between the buyer and the seller is when all the objectives are fulfilled. In the existing system the means of communication and interaction was by simply getting an address or a phone number via Google and later

by visiting the scrap yard yourself to browse the required materials. This process was time consuming and not efficient in any way thus the development of SCRAPP.

Utilization of mobile computing devices for executing the dissimilar types of financial transactions or facilitating them to reduce space and time. The m-commerce comprise the utilization of technology like as SMS services. Bluetooth

applications, and also the integration of low level digital carrier is one of the highest growing markets of E-business and it will contains the expansion and design of a host of new applications. [1]

M-Commerce carrying out business via mobile device. It is used to purchase tickets, paying insurance premium, buying gifts and recharging mobile accounts. M-Commerce is subset of ECommerce and it has lots of advantages like accessible at any place, with more security and convenience. ECommerce through the characteristic like ubiquity, expediency, personalization and timely service, it is going to be next generation mode of business.[2]

The number of clients has significantly improved on mobile phones and overriding enormous bandwidth of mobile Internet Providers. even though people have started using e commerce but still they hesitate to use m commerce because of security issues, payment problems and complexity of the mobile application etc. The reason for its spread is the ease of

availability of smart phones, because of which people have got the freedom to not only make audio and video calls but they can now almost access every aspect of business from viewing the product to, adding it to cart and making the payments and getting their product at home in just few clicks.[3]

## 2. PROPOSED SYSTEM

To reduce the communication difficulty between buyer and seller by developing an Android application that typically runs the server, and allows the users to do things such

as searching for scrap/waste materials in the catalog, adding a selected product to a basket and placing an order for it. The proposed Scr-App allows the visitors to buy scrap/waste materials online.

Here we proposed a system that will help buyer and seller to do things such as searching for scrap/waste materials in the catalogue, adding a selected product to a basket and placing an order for it.

Firstly seller posts all the scrape related add with all its details including photos of the material. Then admin have to upload the categories of the product. The buyer of the system has to register first by using the android application so that he can search for scrap and waste material like Steel, Iron and stainless steel scrap.

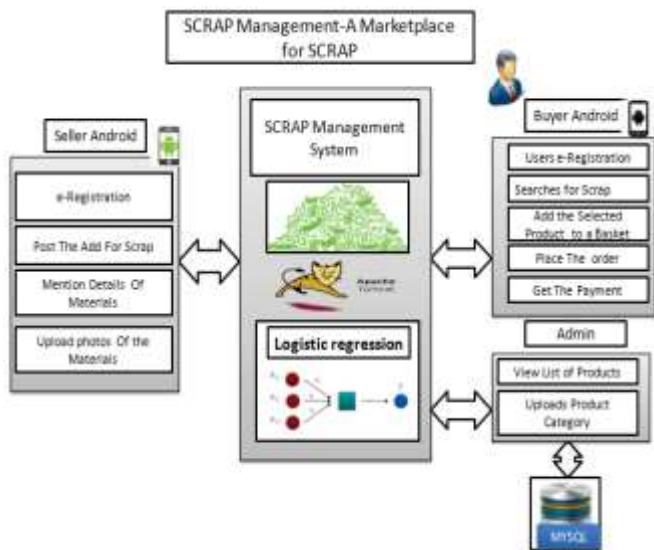


Fig-1: System Architecture

So that he can select the product which he want to buy and place the order for same. Buyer can view the contents at any time. Without human intervention app calculates the over all amount by using logistic regression and the related information of buyer or seller sent as SMS to visitor. Figure 2 shows the flow of the system.

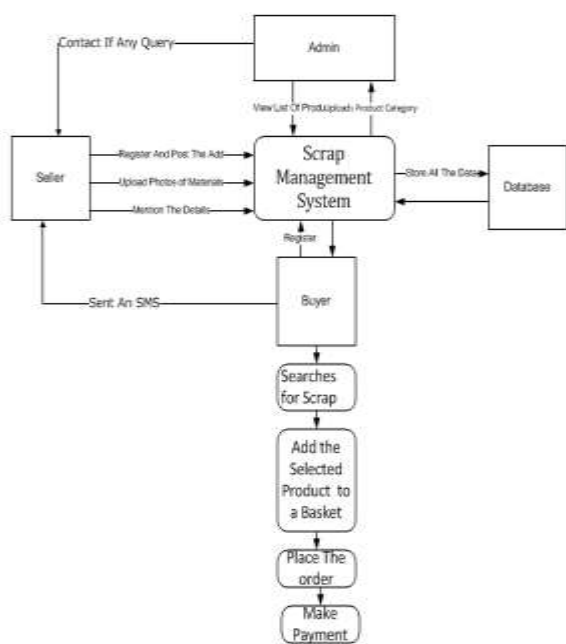


Fig-2: Flow of the System

### 3. ALGORITHM USED

The logistic regression is a analytical examination used to explain data and to give explanation about the relationship among one dependent relative binary variable and one or extra ostensible, ordinal, interval or ratio-level independent variables.

Logistic regression can started with a description of the standard logistic function. It is helpful since it can acquire any real input  $t$ . while the outcome constantly obtain the values among zero and one and hence is interpretable as a probability. The logistic function  $\sigma(t)$  is defined as follows:

$$\sigma(t) = \frac{e^t}{e^t + 1} = \frac{1}{1 + e^{-t}}$$

Graph of the logistic function on the  $t$ -interval  $(-6,6)$  is shown below.

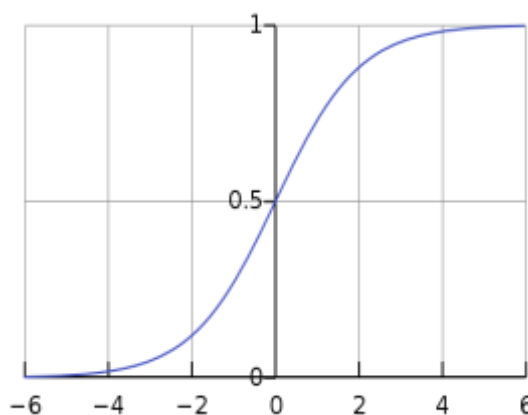


Fig -3: The standard logistic function  $\sigma(t)$

Let us assume that  $t$  is a linear function of a single explanatory variable  $x$ . We can express  $t$  as follows:

$$t = \beta_0 + \beta_1 x$$

And the logistic function can now be written as:

$$p(x) = \frac{1}{1 + e^{-(\beta_0 + \beta_1 x)}}$$

Note that  $p(x)$  is interpreted as the probability of the dependent variable equaling a "success" or "case" rather than a failure or non-case. It's clear that the response variables  $Y_i$  are not identically distributed:  $P(Y_i = 1 | X)$  differs from one data point  $X_i$  to another, though they are independent given design matrix  $X$  and shared parameters  $\beta$ .

### 4. RESULTS

The Scrap Management system allows the visitors to buy scrap/waste materials online with product name and price.



Fig-4: Dashboard

User/seller can give all the details like product category to raise the pick up request.

The product category like metal, Iron and stainless steel, aluminium scrap is mentioned along with the prices.

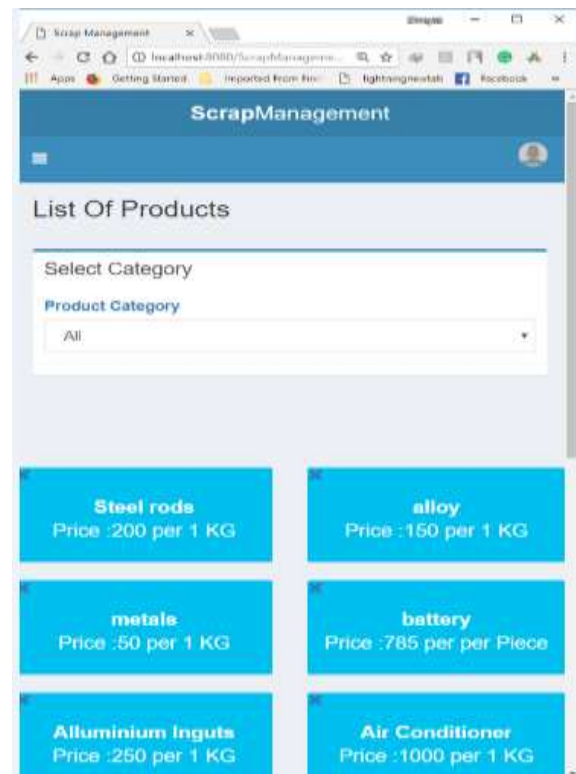


Fig-6: List of Product

The user who wants to raise the pickup request has to mention the product name, quantity as shown in figure 7

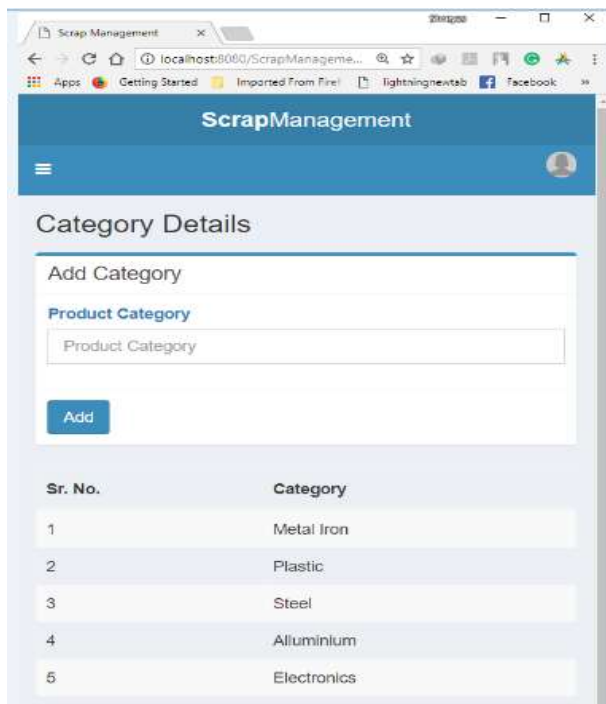


Fig-5: Category Details

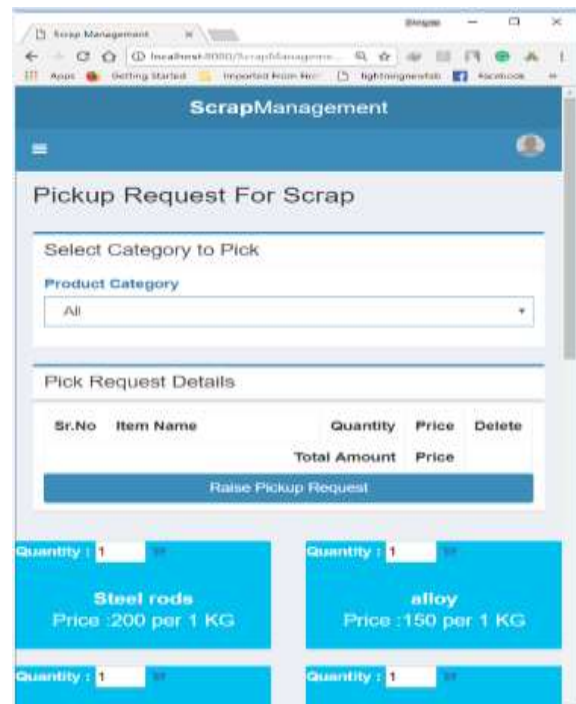


Fig-7: Pick Up Request

Admin can view all the pick up request along with product name, address , payment status.

[5] Roy Deddy Hasiholan Tobing, LizaVenita Debora Pardede,Inten Sherley Panjaitan and Eminarti Yuliasi Sianturi “Customizable Commerce Mobile Application”, IEEE 2016.



Fig-8: View Request

## 5. CONCLUSION

SCRAPP is an app that will help users to browse products and communicate with the seller in matter of no time. A successful transaction between the buyer and the seller is when all the objectives are fulfilled. These types of applications would be of great use for the scrap/waste material users to find the sellers easily in the sense that they can reduce their work of searching for the sellers.

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