

Tracing Scrap Application

J. Seema Sithika^{1*}, S. Sowmiya Sri², A. Saranya³, N. M. Manoj Kumar⁴, P. Poonkodi⁵, K. Sangeetha⁶

^{1,2,3,5,6}Department of Computer Science and Engineering, SNS College of Technology, Coimbatore, India

⁴Code Raavana Technologies, Coimbatore, India

Abstract: Tracing scrap application is a web-based application that tracks the usage of plastics among the consumers through the vendors, collects the scrap (plastic) directly from the user and deliver it to the recycling industries. This serves as a bridge for the consumers and the recycling industries. Through this web application we are aiming to reduce the circulation of plastics among people by recycling them in some useful ways. Scrap tracking is a system that deals with the number of customers from one party to another party each day in all platforms. This medium is used for the reduction of the plastic circulation, ranging from the simple use of plastics to the use of a complex wastes and involves various agencies following the rules. Authority to regulate and maintain the trash disposing system is very less as of now. So our system is suitable to be implemented in all flat shopping areas, due to its practicality, reliability and reasonable cost, ensures visibility and faster interface for any type of organization by providing the right information at the right time for the user. The primary aim of this software is to provide an improved design methodology, which envisages the plastic free future and improvement of the environment, which is necessary for a livelihood. This necessitates the design to be expandable and modifiable and so a modular approach is used in developing the software. The software has been developed using the most powerful and secure backend MySQL and PHP the most widely accepted web oriented HTML, CSS, JS. The software is meant to overcome the drawbacks of the manual system.

Keywords: Tracing scrap, Modular approach, Recycling scrap.

1. Introduction

Tracing scrap is a web-based application that tracks the usage of plastics among the consumers through the vendors, collects the trash (plastic) directly from the user and deliver it to the recycling industries. It provides a single point of contact that collects the plastic bags from the consumers and to deliver the supplements on time, using integrated best practices to manage operations and services. It offers options such that rewarding the consumers with discounts on next purchase if they provide us with the plastic bags. It ensures visibility, insight, isolation and faster resolution for issues to any type of organization by providing the right information at the right time as required by the user. From densely populated cities to smaller rural communities, waste management systems keep our homes and communities free from unwanted clutter. Although these waste management services exist in nearly every community, the industry's current operating standards have proven inefficient and highly resource-intensive. This inefficiency is largely due

to outdated manual collection methods and logistical processes which lack efficient data-driven solutions. The tracking trash is beginning to develop and implement data driven -related solutions to these problems. From acting as removal chain using data-based management and logistics platforms, and also acting supply chain to the industries.

2. Problem Identification

A. Aim of the paper

The main motive of the paper is to reduce the circulation of plastics in and around cities. The TRACING SCRAP SOFTWARE provides an improved design methodology, which envisages the future expansion, and modification, which is necessary for a plastic-free future and for core sectors like manufacturing industries. These recycled scrap(plastics) are used in garments, road construction and concrete blocks in buildings.

B. Objective of the project

The project's goals are to:

- 1) Collect and maintain the data of shops, public and industries.
- 2) Contact the shops and gather the data of customers and reach them.
- 3) Involving volunteers to store up the plastics.
- 4) Keep track of the plastics received and delivered.
- 5) Benefiting the customers with rewards and cash backs.

3. Tracing Scrap

A. Collecting Scrap

The primary step of collecting the plastic trash is connecting with the shops, malls and residential areas. Joining hands with them to collect the data of the consumers such as name, mail id, contact number in-order to reach them and ask for their willingness in providing the trash and collect that from them. The shops and malls plays a vital role as they provide the above details of consumers to us through the online platform i.e. our website. we collect the data of every customer on their every purchase. Their data provides the details of their purchase such as number of plastic bags they carry and the amount of plastics in their purchased products. This primary data helps our volunteers to reach out the consumer in an earlier way. We also

*Corresponding author: sithika164@gmail.com

focus on the residential areas such as apartments gated communities to collect the plastic wastes. The shopkeeper uses our web application by creating an account to provide us with the data of customers. volunteers or social workers can also use our application to provide us their plastic wastes. Shopkeepers, volunteers and also the customers who provide us with large amount of data will be benefited with rewards. customers along with rewards they also get cash-backs and offers on their upcoming purchases with our connected shops and malls.

B. Maintain and Recycle

We contact the respected consumers, shops and informers who has plastics or trash and we reach and collect from them with help of our volunteers. We also have our collaborations with the plastic recycling or industries which uses plastics to make their products. Thus, after collecting the trash we store them and if a certain level is reached we provide that to the industries for the recycling purposes. Mainly the recycled plastics are used for constructions of public road, buildings, also for making garments and other purposes. This helps in reducing the circulation and the pollution caused by dumping plastics.

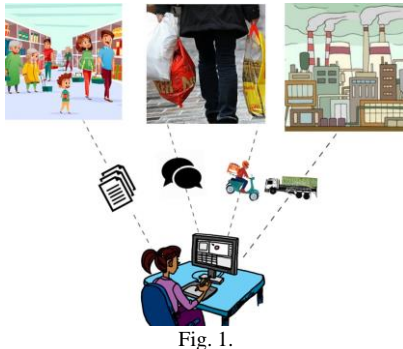


Fig. 1.

4. System Design

A. Web Application

HTML (the Hypertext Markup Language) and CSS (Cascading Style Sheets) are two of the core technologies for building Web pages. HTML provides the structure of the page, CSS the (visual and aural) layout, for a variety of devices. JavaScript is a programming language used primarily by Web browsers to create a dynamic and interactive experience for the user. Bootstrap is a framework to design websites faster and easier. It includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels, etc. It also supports JavaScript plugin. Bootstrap's responsive CSS adjusts to phones, tablets, and desktops. MySQL is the world's second most widely used open-source relational database management system (RDBMS). The MySQL development project has made its source code available under the terms of the GNU General Public License, as well as under a variety of proprietary agreements. MySQL is a popular choice of database for use in web applications, and is a central component of the widely used XAMP open source web application software stack. PHP is a server-side scripting language designed for web development but also used as a general-purpose programming language.

Hypertext Preprocessor, which is a recursive acronym. PHP code can be simply mixed with HTML code, or it can be used in combination with various template engines and web frameworks. PHP has also evolved to include a command-line interface (CLI) capability and can be used in standalone graphical applications.

B. Requirements Overview

1) Shop master

The Shop Master Record contains all of the information about the shop including their customer details. A function which access rights can be granted to and revoked from the users Master with reference to this shop Master.

2) Client master

The client master database contains information about the client. This information is stored in individual client master records. A client master record contains the client's name and address, as well as data such as Names of important contact persons (sales staff) and Terms of payment.

3) Customer master

The customer master database contains information about the customer's individual records. Customer master consists of customer's id, name, DOB, designation, contact number, email ID, address, and status.

4) Access master

System will facilitate to update User wise, role wise Access Levels. System will provide to update Slot Reference and Rows reference as per Company requirements.

5) Purchase master

The purchase master database contains information about the purchase details of the customer's records. Customer master consists of customer's id, name, shop id, purchase time/date, total no. of items purchased, address, and status.

6) System master

This area is dedicated for Safety purpose like backup and restore, User Tracking and for future expansions.

5. Conclusion

The System requires only a web-browser and it is developed as an open-source application. The shop and consumer details has to be described correctly, and then the database gets reflected in tracking process. The consumer can be from shops any type like stationery, grocery or shopping malls. Based on the customer data, status and purchase details are available for sorting out the discrepancies and for ease of use. This system can either reside on a centralized server or be distributed across modular hardware and software units that provide "services" and communicate on a local area network. Present system is built using HTML as front end and MySQL as back end.

References

- [1] <https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css>
- [2] <https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.bundle.min.js>
- [3] https://www.w3schools.com/sql/sql_ref_mysql.asp
- [4] <https://www.sej.org/publications/tipsheet/tracking-trash-theres-app-that>
- [5] <https://learn.jquery.com/>
- [6] <https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js>