

Trash Go Waste

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How to cite this paper: Rahul Jayan | Ranjana. A | Reena Thomas | Renin Joy "Trash Go Waste" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-3 | Issue-4, June 2019, pp.281-283, URL: <https://www.ijtsrd.com/papers/ijtsrd23209.pdf>



IJTSRD23209

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ABSTRACT

In today's world waste is becoming a most vital issue that has to be properly taken care. The inadequate waste collection, transport, disposal and treatment is becoming a major environmental challenge in India. The management of waste has attained the highest importance in this era, the volume of waste generated is increasing day to day life. In most of the communities across the world, people are showing negative attitude towards the waste management even though they are well aware of the consequences of improper solid waste management. Although the municipalities are taking care of the waste management system, they too face many challenges regarding proper treatment of waste due to lack of infrastructure that has been not yet provided by the government. The challenges and barriers of waste management are significant and so are the opportunities. The future is becoming mobile nowadays, the developing new era will be carved by mobile development and digital evolution. Even though new innovations and technologies are arising they still are not being benefited by us due to lack of waste treatment plants. Mobile products and applications are becoming worthy for organisations, stakeholders and common people. Using these applications waste management can effectively done. Aim of this project is to develop a sustainable waste management app emphasizing on recycling, energy generation, effective disposal s and waste prevention

Keywords: SWM: Solid Waste Management

I. INTRODUCTION

The major problem faced by urban local bodies in India is SWM. Effective SWM is a major challenge in cities with high population density. Waste is defined as the end of the product life cycle the amount of waste produced is nowadays highly increasing. Each of us has the duty of keeping our environment clean and healthy. Nowadays people know the price of everything and the value of nothing. As a result of rapid increase in population and improved lifestyle of people, the quantity of waste increased in rural as well as in urban areas. As the rural areas are diminishing into urban cities the 'use and throw' concept is increasing. Although the humans are well versed about the harmful situations that can emerge due to this practise of disposal still they are not cared about it. The waste from rural areas contains more biodegradable items similarly those from urban areas contains non-biodegradable items like plastic and packaging.

In order to find a solution to this problem we make use of our mobile app (Trash Go Waste) which in turn effectively manages the waste in just one click. Waste collection team will be arriving soon in the place to collect the waste materials and thereby effectively treating it. This paper reviews the challenges, barriers and opportunities associated with improving waste management in India.

II. MOTIVATION OF THE PROJECT

The app Trash Go Waste was made as out of the motivation to dispose waste safely, seeing our surroundings fully messed up with waste materials which are both harmful and

harmless. This app is built in order to safely dispose the waste materials as well as through this app we provide job opportunities who is ready to collect waste from all kind of places. In this app those who wished to sell their waste can login and need to pay an amount to the trash go waste and the best part is that the money will be given back to the one who is disposing more amount of waste there by building a competition among the customers to safely dispose the waste through our app. We in turn dispose this waste effectively without any harm to the environment. Energy is generated from waste materials that are collected as well as recycled and reused. Only those which cannot be treated and made useful is incinerated and landfilled. Another feature of the app is waste collection and recycling dates remainder.

III. METHODOLOGY

Trash Go Waste works by Android Studio. A login page is first created by the customers then they can choose the category of wastes they need to dispose along with that they can specify the time to get the waste collected. An option called quick waste is also kept to dispose the waste quickly if the amount of waste is huge and should be disposed faster. Trash Go functions as a waste payment app as well as a hub to access local information and policies on the waste management. In addition to these users can use this app to monitor and track waste pickups. Therefore, it is easy for users to keep track of amount they spent on disposing the trash.

A. EXISTING METHODOLOGIES

1. MANUAL METHOD

Manual methods are done by the municipality workers. They collect different types of waste materials from homes and other locality. Finally, they will dispose it somewhere they find not harmful, sometimes reuses and recycling is also carried out.

Disadvantages of this existing system are given below,

- Time consuming
- Lack of labour
- Lack of waste treatment plants
- Lack of facilities
- Lack of cooperation

B. PROPOSED SYSTEMS

The proposed system integrates all individual systems under one board. So that the overall system will be efficient. Usecase diagram and class diagram of the proposed system is shown below,

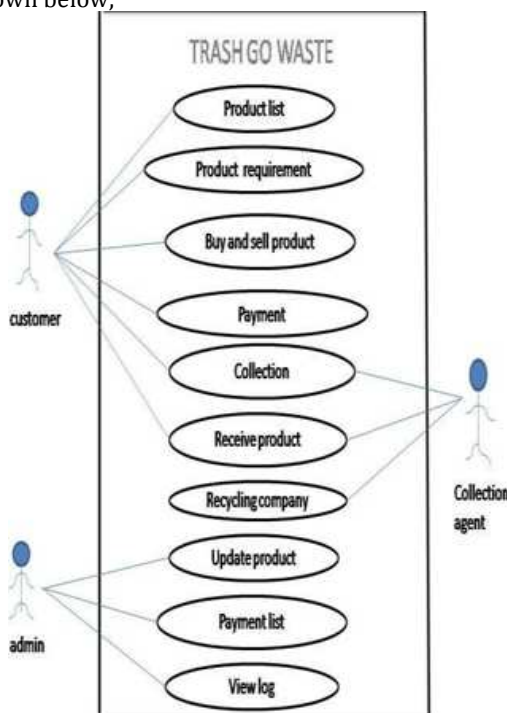


Fig.1 Usecase diagram

Class Diagram for Trash-Go Waste Management App

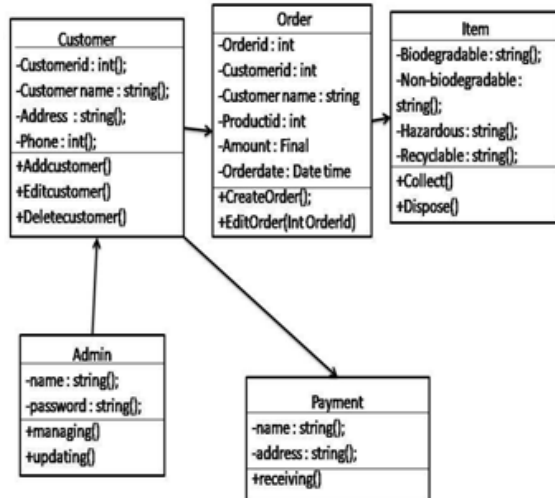


Fig.2 Class diagram

The proposed system contains the following phases,

1. Collection of waste
2. Disposal of waste
3. Recycling

Collection of sorted waste

Waste collection is a part of the waste management. In this process mainly collect household and commercial waste. These wastes are collected in a sorted manner. The categories of wastes are biodegradable, non-biodegradable and non-hazardous.

Disposal of waste

In this phase the collected wastes are disposed according to the type of waste. These wastes can be used for generating energy and other waste materials are allowed to undergo recycling and incineration/ combustion or Solid wastes can be used for landfill.

Recycling

The wastes that can be recycled undergo recycling process. It is the process of converting waste into new products to prevent energy usage and consumption of fresh new materials. Recycling is the third phase of reduce, reuse and recycle waste hierarchy. The idea behind the recycling is to reduce energy usage, reduce volume of landfill, reduce air and water pollution, reduce green house gas emissions and preserve natural resources for future use.

There are 4 categories of wastes,

- Biodegradable
- Non-biodegradable
- Hazardous
- Non-hazardous

Biodegradable wastes

It includes any organic matter I wastes which can be broken down into carbon dioxide, water, methane or simple organic molecules by microorganism and other living things by composting, aerobic digestion, anaerobic digestion or similar processes.

Non-biodegradable wastes

It may or may not get degraded after long period of time examples of non-biodegradable wastes are plastic, metal, glass, dangerous chemicals, toxins, grocery bags, plastic water bottles.

Hazardous wastes

Wastes that has substantial or potential threats to public health or the environment. These wastes may be found in different physical states such as gaseous, liquids and solids. It is a special type of waste as it cannot be disposed by common means like other by products of our everyday lives.

Non-hazardous wastes

All waste materials not specifically deemed hazardous under federal law are considered as non-hazardous. It includes paper, wood, paper glass and other materials generated by industrial, commercial, agricultural and residential resources.

IV. PROGRAMMING

<html>

```

<head><title>Add info....</title>
</head>
<body>
<form action="add_info.php" method="post">
<table>
<tr>
<td>
<input type="text" name="name" /></td>
</tr>
<tr>
<td>
<input type="text" name="email" /></td>
</tr>
<tr>
<td>
<input type="password" name="password" /></td>
</tr>
<tr>
<td>
<input type="text" name="address" /></td>
</tr>
<tr>
<td>
<input type="text" name="pincode" /></td>
</tr>
<tr>
<td>
<input type="text" name="mobile" /></td>
</tr>
<tr>
<td>
<input type="submit" value="SUBMIT INFO" />
</tr>
</table>
</form>
</BODY>
</HTML>
require "phpscript.php";
session_start();
$email = $_SESSION['varname'];
$vermicompost=$_POST["vermicompost"];
$rubber=$_POST["rubber"];
$biofuel=$_POST["biofuel"];
$paperbag=$_POST["paperbag"];
$brick=$_POST["brick"];
$sql="INSERT INTO `product`
(email`,`vermicompost`,`rubber`,`biofuel`,`paperbag`,`brick`)
VALUES
('$email','$vermicompost','$rubber','$biofuel','$paperbag','$brick');";
if(mysqli_query($con,$sql))
{
echo "Error occurred, please try again" . mysqli_error($con);
}
?>
</td>
</tr>
<tr>
<td>
Password:
</td>
</tr>
<tr>
<td>
else
<meta name="viewport"
content="width=device-width,initial-scale=1.0">
</tr>
<tr>
<td>
d>
Addr
ess:
</td>
</tr>
<tr>
<td>
type="text"
name="address"/></td>
</tr>
<tr>
<td>
Pincode:

```

```

</td>
</tr>
<tr>
<td>
<input type="text" name="pincode" /></td>
</tr>
<tr>
<td>
<input type="text" name="mobile" /></td>
</tr>
<tr>
<td>
<input type="submit" value="SUBMIT INFO" />
</tr>
</table>
</form>
</BODY>
</HTML>
require "phpscript.php";
session_start();
$email = $_SESSION['varname'];
$vermicompost=$_POST["vermicompost"];
$rubber=$_POST["rubber"];
$biofuel=$_POST["biofuel"];
$paperbag=$_POST["paperbag"];
$brick=$_POST["brick"];
$sql="INSERT INTO `product`
(email`,`vermicompost`,`rubber`,`biofuel`,`paperbag`,`brick`)
VALUES
('$email','$vermicompost','$rubber','$biofuel','$paperbag','$brick');";
if(mysqli_query($con,$sql))
{
echo "Error occurred, please try again" . mysqli_error($con);
}
?>

```

V. Acknowledgment

This is an opportunity to express my sincere gratitude to all. At the very outset, we express our thanks to the Almighty God for all the blessings endowed on us. This report is submitted in regard with the project done as a part of the fifth semester curriculum. We express our wholehearted gratitude to our project guide who give inspiration and suggestions throughout the project work. We extend our sincere gratitude to our project coordinator Ms. Anila Thomas for leading the way for the completion of the Project. We would like to extend our appreciation to all other faculty members for their help and advices.

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