



# CAFETERIA MANAGEMENT SYSTEM

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**Abstract:** The cafeteria management system is an essential component of sustainable development and efficient resource management. It targets to minimize food wastage throughout the entire world, from production to consumption. This abstraction outlines the key components and functions of an effective cafeteria management system. Cafeteria management system is a web app created for the management of cafeterias of schools, colleges, and other corporate sectors.

**Index Terms – Food waste, food management, cafeteria management**

## I. INTRODUCTION

- Food waste is one of the major global problems. Inefficiencies in the food chain, inadequate storage and preservation methods, and consumer behaviour contribute to substantial amounts of food being wasted at various stages from production to consumption. Solving this issue requires an effective food waste management system
- This report provides an overview of a food waste management system. i.e., Cafeteria Management System, highlighting its significance, important components, and benefits. The report aims to feature the importance of implementing such system and its capability to reduce food waste, conserve food, and promote its sustainability.
- The Cafeteria Management system provides the user the best interface for managing all their meals through a single web app.
- It provides a feature for user to skip a particular meal of a day containing breakfast, lunch and dinner.
- As a result of this, the user can select any of the option he/she wants to skip or and keep the mess pass on hold for the required number of days.

## II. CAUSE OF FOOD WASTE:

- There can be several reasons for food waste in a mess or cafeteria. Here are some common factors that contribute to food wastage:
- Overproduction: Preparing more food than is actually needed is one of the main causes of food waste. If the quantity of food exceeds the demand, a considerable amount of food can end up uneaten and wasted.
- Poor meal planning: Inadequate planning and forecasting of the number of diners can result in excess food being prepared. Without accurate estimates of demand, it becomes challenge to adjust the quantities appropriately.
- Limited menu options: Offering a very limited variety of dishes can lead to dissatisfaction among diners. If they do not find appealing choices, they may take larger portions of the available options, resulting in more food waste.
- Absence of subscribers without mentioning their presence or absence to the manager of the mess can lead to the wastage of food
- Addressing these factors requires a combination of better planning, improved communication with diners.

## III. IMPACTS OF FOOD WASTE:

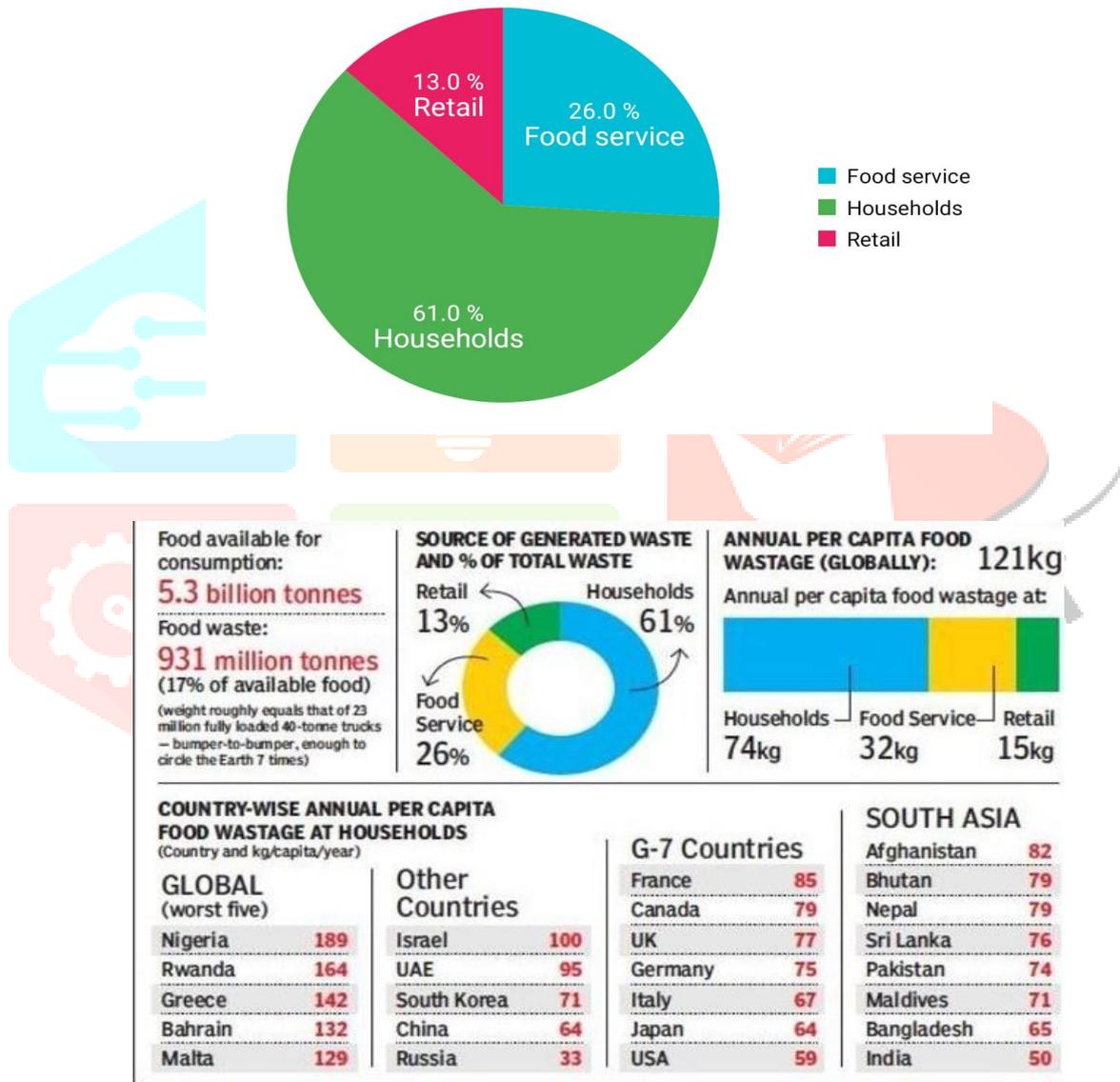
- Environmental Consequences: Food waste in messes contributes to environmental degradation. When food ends up in landfills, it decomposes and produces methane, a greenhouse gas that leads to climate change. Additionally, the resources invested in food production, such as water, land and fertilizers, are wasted when the food is wasted.
- Increased Energy Consumption: Food waste in messes also indirectly leads to increased energy consumption. The production, transportation, and storage of food require energy inputs. When food is wasted, it also represents wasted energy, further the environmental impact.

- Food Insecurity and Hunger: Wasting food in messes is concerning because it contrasts with the prevalence of global hunger and food insecurity. By minimizing food waste, more food can be made available to those in need.

**IV. FOOD WASTAGE DATA:**

- 50kg of food wasted per person per year in Indian homes: UNEP
- According to UNEP food waste index report 2021, Estimates suggest that 8-10% of global greenhouse gas emissions are associated with food that is not consumed.
- As per the UN Environment Programme’s (UNEP) Food Waste Index report 2021, 61% person of food waste comes from households, 26% from food service and 13% from retail.

**Where is food waste generated?**





### V. FOOD WASTE MANAGEMENT:

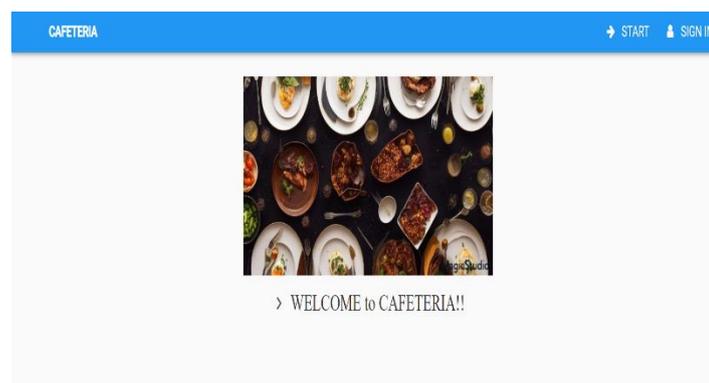
- One of the most important waste management practices is PREVENTION.
- Preventing the waste of food before getting wasted.
- Redistribution or Donation of food that might be wasted.
- Recycling the food or converting the food waste into useful products. (E.g., composting, anaerobic digestion)

### VI. AIM OF CAFETERIA MANAGEMENT SYSTEM:

- The main aim of cafeteria management system is to deal with the food waste management by using the managing practices of prevention.
- Subscriber/user of cafeteria/mess can beforehand inform about its absence of any particular through the web app.
- If the user informs about his absence beforehand. He will be awarded with one extra meal for which he was particularly absent.
- Moreover, it also deals with the wasted food. If the food gets leftover, it can be donated to the needy one at that instant if any of the user finds one.

### VII. ABOUT CAFETERIA MANAGEMENT SYSTEM

- Cafeteria Management System is a web app that deals with the problem of food wastage along with management of a particular cafeteria or mess.
- Its user interface (UI) makes it easy to use for any user.
- It has various data tables regarding the management which helps the manager to handle and manage the particular cafeteria with ease. User Interface



- Along with food waste management, it also deals with the other cafeteria management practices such as ordering food, paying bills online, etc.
- User needs to sign up before using the app and must be logged in while using the app.
- It has the option for subscription of the monthly mess service where user can subscribe to it by filling some additional required information and paying the required amount.
- Once users are subscribed to the mess, they get access to specific options such as skipping meals, view their mess pass, etc.
- All users get access to cafeteria's menu for ordering the meal or snacks.
- Checkbox and quantity meter is available for the users, by which user can select all the food items along with specific quantity for ordering.
- The payment gateway appears as soon as user clicks on the order button.
- Once the payment is completed, manager and crew get the notification and order is placed.

#### DATABASE MANAGEMENT

email	enabled	last_login	password_hash	n_password_failures	confirmed_err
Text	True/False	Date and Time	Text	Number	True/False
jeetshah0410@gmail.com	<input checked="" type="checkbox"/>	28 Jun 2023, 13:25:35.180...	\$2a\$10\$LEs1BjLPZFHPFV7...	0	<input checked="" type="checkbox"/>
satyamsase@gmail.com	<input checked="" type="checkbox"/>	23 Jun 2023, 11:15:43.8760...	\$2a\$10\$3U6cMrl6JYbstiS...	0	<input checked="" type="checkbox"/>
sharmashubham7107@g...	<input checked="" type="checkbox"/>	25 Jun 2023, 18:04:08.497...	None	0	None
<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>

#### VIII. CONCLUSION

In conclusion, the implementation of the canteen management system is crucial for efficient and rationalized tasks in various settings such as schools, colleges and corporate campuses. Throughout this report, we have examined the importance of a cafeteria management system and its potential benefits.

A well-implemented cafeteria management system brings several benefits, including improved operational efficiency, enhanced customer satisfaction, cost savings, and better financial management. By leveraging technology and streamlining processes, organizations can optimize their mess operations, provide healthier and customized meals, and foster a positive dining experience. It is recommended that organizations assess their specific requirements, engage with reliable vendors, and invest in a robust mess management system to achieve these benefits and stay ahead in today's dynamic and competitive environment.

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