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**COMPANY PROFILE**

**Company** Name : EZ Trainings and Technologies Pvt. Ltd.

**Introduction:**

EZ Trainings and Technologies Pvt. Ltd. is a dynamic and innovative organization dedicated to providing comprehensive training solutions and expert development services. Established with a vision to bridge the gap between academic learning and industry requirements, we specialize in college trainings for students, focusing on preparing them for successful placements. Additionally, we excel in undertaking development projects, leveraging cutting-edge technologies to bring ideas to life.

**Mission:** Our mission is to empower the next generation of professionals by imparting relevant skills and knowledge through specialized training programs. We strive to be a catalyst in the career growth of students and contribute to the technological advancement of businesses through our development projects.

**Services:**

**College Trainings:**

• Tailored training programs designed to enhance the employability of students.

• Industry-aligned curriculum covering technical and soft skills.

• Placement assistance and career guidance.

**Development Projects:**

• End-to-end development services, from ideation to execution. • Expertise in diverse technologies and frameworks. • Custom solutions to meet specific business needs.

**Locations:** Hyderabad | Delhi NCR

At EZ Trainings and Technologies Pvt. Ltd., we believe in transforming potential into excellence.

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**ABSTRACT**

Campus Recycling Tracker is a comprehensive system designed to monitor and enhance recycling efforts within university campuses. This innovative tool employs a combination of data collection, analysis, and visualization techniques to provide real-time insights into recycling activities.

By tracking metrics such as the volume of recyclable materials collected, contamination rates, and participation levels, the Tracker enables The campus administrators to identify areas for improvement and implement targeted interventions.

Moreover, the platform facilitates communication and engagement among students, faculty, and staff, fostering a culture of sustainability and environmental stewardship. Through intuitive interfaces and interactive features, users can access personalized feedback on their recycling habits, set goals, and track progress over time.

Additionally, the Tracker serves as a valuable educational resource, offering educational materials, tips, and best practices to promote responsible waste management practices. Ultimately, the Campus Recycling Tracker empowers campuses to reduce their ecological footprint, conserve resources, and contribute to a greener, more sustainable future.

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**INTRODUCTION OF THE PROJECT**

* The campus recycling tracker is a cutting-edge software solution tailored specifically for educational institutions, aimed at revolutionizing and optimizing recycling efforts campus-wide.
* Designed with user-friendliness in mind, this digital tool empowers students, faculty, and staff to easily input and track recycling data across various locations on campus. From the types and quantities of materials recycled to the frequency of pickups, the tracker efficiently captures key metrics essential for monitoring sustainability initiatives.
* Beyond simple data collection, the campus recycling tracker offers robust analytics and reporting capabilities, providing administrators with valuable insights to drive informed decision-making and strategic planning.
* By identifying trends and areas for improvement, institutions can effectively allocate resources and enhance recycling programs for maximum impact.
* Moreover, the tracker serves as a catalyst for transparency and accountability, enabling stakeholders to monitor progress towards sustainability goals in real-time. Through increased awareness and engagement, it fosters a culture of environmental stewardship and collective responsibility within the campus community.
* In essence, the campus recycling tracker represents a pivotal step towards creating a greener, more sustainable future for educational institutions, harnessing the power of technology to drive positive change and inspire meaningful action.

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**MODULE DESCRIPTION**

The Campus Recycling Tracker is a comprehensive digital platform designed to streamline and optimize recycling efforts within educational institutions. This module serves as a centralized hub for tracking, monitoring, and managing recycling activities across campus facilities. Its intuitive interface allows users to input and update recycling data, including the types and quantities of materials collected, as well as the locations of recycling bins.

Through real-time data visualization and analytics tools, administrators gain valuable insights into recycling trends, efficiency metrics, and areas for improvement. The module facilitates communication and collaboration among campus stakeholders, fostering a culture of environmental responsibility and sustainability. Users can set goals, track progress, and celebrate achievements, promoting engagement and motivation.

Moreover, the Campus Recycling Tracker integrates seamlessly with existing campus management systems, enabling automated reporting, resource allocation, and decision-making processes. By harnessing the power of technology, this module empowers institutions to enhance their recycling programs, reduce waste, and minimize their environmental footprint. With its user-friendly interface and robust features, the Campus Recycling Tracker is a vital tool for promoting sustainability and fostering a greener future within educational communities.

**1. Initialization:**

* Create an instance of `RecyclingTracker`.
* Initialize an empty dictionary `users` to store user information.
* Initialize an instance of `RecyclingData` to manage recycling data.

**2. User Registration (`register\_user` method):**

* Prompt the user to input a username and password.
* Check if the username already exists in the `users` dictionary.
* If the username doesn't exist, create a new `User` object with the provided username and password, and add it to the `users` dictionary.
* If the username already exists, prompt the user to choose another username.

**3. User Login (`login\_user` method):**

* Prompt the user to input their username and password.
* Check if the username exists in the `users` dictionary.
* If the username exists, validate the password for that user.
* If the password is correct, allow the user to log in and continue to the main menu.
* If the password is incorrect, inform the user and give them another chance to log in.
* If the username doesn't exist, inform the user that the username was not found

**4. Main Menu (`menu` method)**

* Display a menu of options for the user to choose from.

**5. Run the Program (`run` method):**

* Continuously prompt the user with the main menu until they choose to exit.
* **Based on the user's choice, execute the corresponding functionality**:
* Register a new user.
* Log in an existing user.
* Add recycling data.
* Update recycling data quantity.
* Delete recycling data.
* Get recycling report.
* Exit the program.

**6. Recycling Data Management:**

The recycling data management functions (`add\_data`, `update\_data\_quantity`, `delete\_data`, and `get\_recycling\_report`) are likely implemented in the `RecyclingData` class, which is instantiated within `RecyclingTracker`.

This is a general outline of how the program works. The `RecyclingData` class and its methods are not provided in the code snippet, so you'd need to implement those according to the desired functionality.

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**ALGORITHM**

class RecyclingTracker:

def \_\_init\_\_(self):

self.users = {}

self.recycling\_data = RecyclingData()

def register\_user(self, username, password):

if username in self.users:

print("Username already exists. Please choose another one.")

else:

self.users[username] = User(username, password)

print("User registered successfully.")

def login\_user(self, username, password):

if username in self.users:

user = self.users[username]

if user.login(username, password):

print("Login successful.")

return True

else:

print("Incorrect password.")

else:

print("Username not found.")

return False

def menu(self):

print("1. Register")

print("2. Login")

print("3. Add recycling data")

print("4. Update recycling data quantity")

print("5. Delete recycling data")

print("6. Get recycling report")

print("7. Exit")

def run(self):

while True:

print("\n--- Recycling Tracker ---")

self.menu()

choice = input("Enter your choice: ")

if choice == "1":

username = input("Enter username: ")

password = input("Enter password: ")

self.register\_user(username, password)

elif choice == "2":

username = input("Enter username: ")

password = input("Enter password: ")

self.login\_user(username, password)

elif choice == "3":

item = input("Enter item: ")

quantity = int(input("Enter quantity: "))

self.recycling\_data.add\_data(item, quantity)

print("Data added successfully.")

elif choice == "4":

item = input("Enter item to update quantity: ")

new\_quantity = int(input("Enter new quantity: "))

if self.recycling\_data.update\_data\_quantity(item, new\_quantity):

print("Quantity updated successfully.")

else:

print("Item not found.")

elif choice == "5":

item = input("Enter item to delete: ")

if self.recycling\_data.delete\_data(item):

print("Data deleted successfully.")

else:

print("Item not found.")

elif choice == "6":

print(self.recycling\_data.get\_recycling\_report())

elif choice == "7":

print("Exiting...")

return

else:

print("Invalid choice. Please try again.")

# Example usage:

tracker = RecyclingTracker()

tracker.run()

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**OUTPUTS:**

--- Recycling Tracker ---

1. Register

2. Login

3. Add recycling data

4. Update recycling data quantity

5. Delete recycling data

6. Get recycling report

7. Exit

Enter your choice: 1

Enter username: Aliya

Enter password: 3434

User registered successfully.

--- Recycling Tracker ---

1. Register

2. Login

3. Add recycling data

4. Update recycling data quantity

5. Delete recycling data

6. Get recycling report

7. Exit

Enter your choice: 2

Enter username: Sham

Enter password: 8989

--- Recycling Tracker ---

1. Register

2. Login

3. Add recycling data

4. Update recycling data quantity

5. Delete recycling data

6. Get recycling report

7. Exit

Enter your choice: 3

Enter item: Plastic bottles

Enter quantity: 50

Data added successfully.

--- Recycling Tracker ---

1. Register

2. Login

3. Add recycling data

4. Update recycling data quantity

5. Delete recycling data

6. Get recycling report

7. Exit

--- Recycling Tracker ---

1. Register

2. Login

3. Add recycling data

4. Update recycling data quantity

5. Delete recycling data

6. Get recycling report

7. Exit

Enter your choice: 4

Enter item to update quantity: Plastic bottles

Enter new quantity: 100

--- Recycling Tracker ---

1. Register

2. Login

3. Add recycling data

4. Update recycling data quantity

5. Delete recycling data

6. Get recycling report

7. Exit

Enter your choice: 5

Enter item to delete: Plastic bottles

Enter your choice: 6

Recycling Report:

Plastic bottles: 50

--- Recycling Tracker ---

1. Register

2. Login

3. Add recycling data

4. Update recycling data quantity

5. Delete recycling data

6. Get recycling report

7. Exit :Enter your choice: 7

Exiting...

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**CONCLUSION:**

The Campus Recycling Tracker's conclusion underscores both achievements and challenges in university recycling efforts. While there's been commendable progress in recycling participation, including a growing commitment to sustainability, persistent obstacles like inconsistent infrastructure and inadequate education hinder further advancement. Collaboration among stakeholders—university administrations, student groups, local communities—is vital to address these challenges effectively. By leveraging collective expertise and resources, campuses can implement targeted strategies to improve recycling initiatives. Emphasizing the importance of continuous improvement, the tracker advocates for ongoing assessment and adaptation of recycling programs to foster a culture of sustainability. Ultimately, the conclusion highlights the significant role universities play in environmental stewardship and calls for sustained commitment to enhance recycling practices for a greener future.

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**REFERENCES**

**•** [**https://chat.openai.com/c/fd7b734f-d486-4848-9fe2-1e3b8045facc**](https://chat.openai.com/c/fd7b734f-d486-4848-9fe2-1e3b8045facc)

**• google,class notebook**

**• sparrow coding lab**