**SATVA**

**Introduction:** Paper recycling is an essential part of the recycling industry. Almost all kinds of paper are recyclable. The most commonly recycled paper items include cardboard, newspaper and magazines etc.

**Problem Solution:** Recycling of paper is the process by which wastepaper is turned into a new paper product. The idea behind our problem solution is recycling paper for saving energy and landfill space.

**Existing solution of problem:** The management of municipal solid waste is a serious problem in both developed and developing countries. The different activities of solid waste management are the collection, segregation, transportation, disposal, processing and recycling, which are not effectively handled and managed in most of the cities and towns.

Governance in waste management, needs to be more accountable and responsive. It faces challenges with regards to operations, capacity building and service standards.

**Proposed solution:** Our solution has focused on paper waste management in an effective and easy way. Application has been built using angular for the front end, spring boot rest for the backend service and mongo for persisting the data. Application has been hosted on the IBM Cloud using IBM Cloud Kubernetes Service.

You can either enter the application as a Customer to Sell your used paper or as Consumer for Buy the paper for recycle it. Customer can Register in the application and select service of drop box or Pickup and Sell their paper and earn reward points. They can view the rewards in the dashboard, provide us the feedback and invite friends for referrals and contribute towards paper management.

Registered customers get the services “**Sell Paper**”, “**Redeem Points**”, “**Dashboard**”, ”**Feedback**” and **“Referrals”**. For selling the paper customer can use the “**Drop-Box**”. The “**Drop-Box**” device calculates the paper details submitted by the customer. If customer entered paper details match with the device calculated paper details, customer will get the reward points!

Registered consumers get the services **“Buy Paper”,** **“Redeem Points”**, **“Dashboard” “Feedback”** and **“Referrals”**. Buy paper helps the consumer to buy the paper from **SATVA**, for recycling with the available resources. Upon order confirmation, the consumer will make the payment.

**Benefits** of **SATVA:**

* Environmentally friendly
* Creates an awareness on importance of green environment and a healthy lifestyle to all age groups by promoting the idea of **Reduce, Recycle** and **Reuse** the **natural resources**
* Conversion of waste papers into Usable products
* Every Contribution of customer will be rewarded with points and they can redeem with vouchers
* **SATVA** will segregates the collected paper and helps the consumer to have a **hassle-free** experience in Buying the used paper
* With this opportunity SATVA team, reach its goal and attain satisfaction for working towards a greener environment

**X-factors** of **SATVA:**

* Management of wastepaper
* Minimal Effort by Customers for Managing paper
* Customized paper requirement analysis for consumers

**Future Enhancements:**

* Include dynamic worldwide locations
* Customer and Consumer OTP for registration
* Secure Payment Gateway facility
* Pickup Services

**Conclusion:**

**SATVA**, plays an essential role in managing operations, capacity building and service standards. It follows an integrated paper waste management in a simplified manner.