SMART DUSTBIN

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Abstract: India is a developing and a highly populated country. Development of a country does not only mean the economic development but also social development. It is the duty of the citizens to maintain cleanliness in the country, seldom we find our citizens taking this duty seriously on the reason that they are not getting any benefits from doing this they tend to neglect their duty. So we are trying to use money as a psychological factor to encourage people to do their duty towards cleanliness. Hence we came up with the idea of "Smart Dustbin" as an effective implementation of "Swachh Bharat Abhiyan" started by our Hon'ble Prime Minister. When we India's are tolerating every new plan and going in flow with all the new plans, so we thought on a global level and we came up with this new and fresh idea for the efficient way of waste segregation and waste management.

Keywords: *Waste Segregation, India, Money, Cleanliness.*

I. Introduction:

India is a nation with a rich culture and heritage. It is highly populated that it ranks 2nd in the world. This increasing population density will have an adverse effect on the country's development. Growing population and different life styles of people will create huge amount of waste either dry or wet waste. With increasing population there is need for the waste management and waste segregation. Urbanization has led to a worst condition were people are busy all the time and have developed a mindset of use and throw policy, their negligence would make the place dirty. Managing the waste and segregating the waste is important. Since most of the dry waste comprises of plastics or the packaging, which are the non-biodegradable waste, no proper disposal or burning the plastics are threats to environment which leads to different types of pollution. Managing this waste and also segregating them in a much smarter way is done through Smart Dustbin.

The major part of our garbage consists of plastic waste. Every commercial product comes

to the market with a unique barcode. So why can't we think of increasing the price of every product by a small digit and give back the extra money when they throw the waste in dustbin. So we are thinking of including QR code scanner in our Smart Dustbin. Now every time a user puts the waste back in the Smart Dustbin. He/she should scan their ID in the QR code scanner which will link their account to the database. And then when they throw the waste in the dustbin they have to scan the code present on the product. So every time any person dumps the waste in the Smart Dustbin he/she can get back the extra money they paid.

II. Method:

Smart Dustbin can be set up near populated places such as restaurants, malls, Multinational companies or at a distance of 500 meters in locality. It comes with the QR scanner on it, which helps the user who will throw the waste to

Dustbin to scan the unique barcode on the product. Government agencies or the third parties, will increase the price of the commodities on a global level, where the base price of the product will be increased to some digit which will be cash backed to the user.

User who comes with waste to be disposed will first provide his identity by scanning his Adhaar, which will be linked to his bank account. Once the user gives his identity he will throw the waste in the bin by scanning each of the barcode on the product. This barcode details information will then be cross checked with the database to compare the actual base price of the product to return the increased price on those products to the user. This money will be sent directly to the Adhaar linked bank account or to the paytm wallet which have a Digital KYC verified with the user's adhaar. Once the money is transferred the user will be prompted with the transaction message.
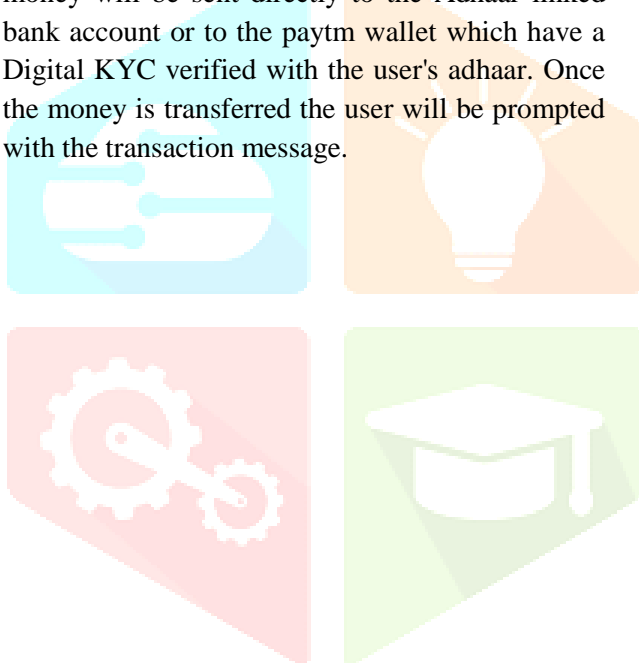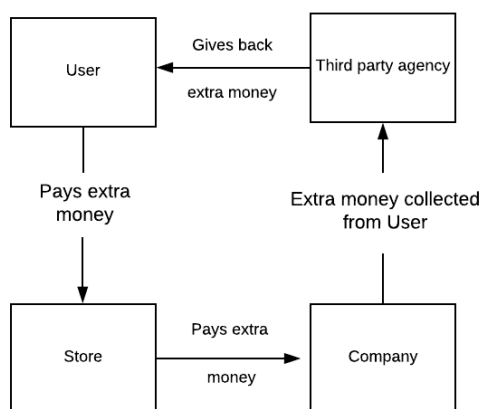
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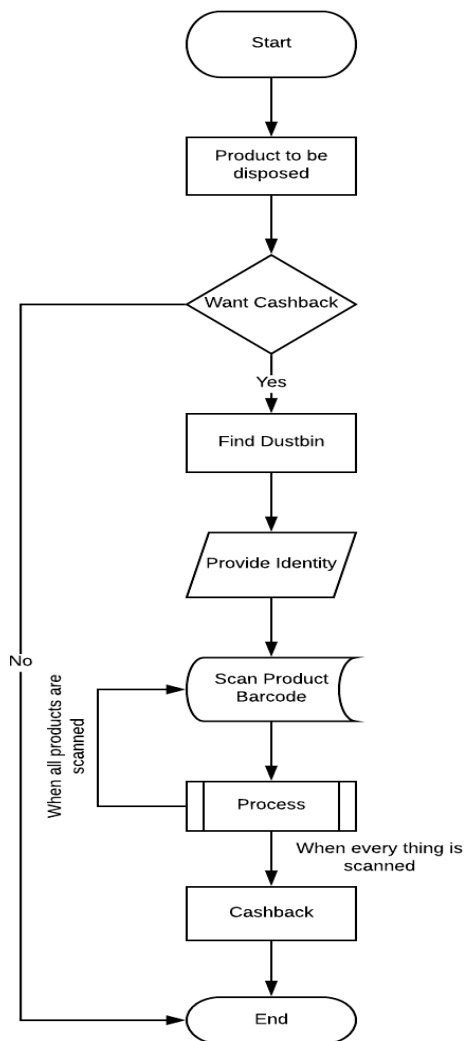
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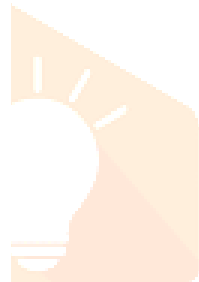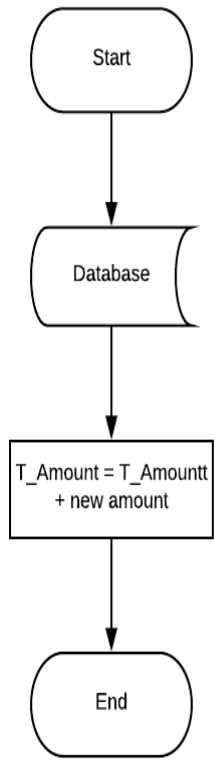
Money Transfer:

III. Advantages:

➢ The implementation of our idea will directly tackle the problems such as cleanliness, poverty.
➢ Efficient segregation of plastics helps to recycle it and reduces the production of extra plastic

products. Even just stopping the extra production of the plastic will be of great help to us.
➢ If the citizens are ignorant then the rag pickers will get a chance to earn some money out of what they do, as a result even the roadside waste will get cleaned which is a major problem in our country as a result even their economic condition will be developed may be a little but it will be a great deal to them.
➢ As the smart dustbins are used only for dry waste we can use normal dustbins for the wet waste and hence it also solves one of the major problem in waste management as the dry and wet wastes will be separated initially so it will be a great help for the waste management department of our country.
➢ And to add to that as we increase the price of the products maybe a little but it will have a huge step up for the economic growth of the country.
➢ This idea is implemented then the cleanliness in the country will be increased as every person in the country will be encouraged to dump the waste in the dustbins so normally there will be no garbage dumped near any locality.
➢ This idea supports all the people who are striving very hard for the development of our nation and hence helps us to appreciate the actual beauty of our country making it a better place.

IV. Applications:

➢ Smart Dustbin will be a good part of smart city.
➢ Control of pollution due to proper disposal of waste.
➢ It makes the place more hygienic and healthy.
➢ Citizens are motivated to throw waste.
➢ Less labour work for segregation.
➢ Overall economic growth.

V. Acknowledgement:

VI. Conclusion:

It is evident to say that India as a country requires a well-defined strategic plan and an effective implementation of models for waste management. Smart dustbin would serve this purpose, implementation of this model will encourage the people to throw the waste at the right place and maintain cleanliness everywhere. And there is benefit of plastic recycle and reuse due segregation of waste at a lower labour. Smart dustbin will ultimately help achieve a socio-economic and environmental goals in the field of waste management to make India a better place.

VII. References:

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