THEME: SOLID WASTE MANAGEMENT

Solid Waste deals with the waste which can be garbage, refuse from water treatment or caused due to air pollution which can contain any discarded material including solid, liquid, semi-solid, etc. **In Simple Words** - Solid wastes are any discarded or abandoned materials. Solid wastes can be solid, liquid, semi-solid or containerized gaseous material. Generally, this kind of waste is formed by the carelessness of all the humans in the locality in which every individual is part of. Pune is one of the cities of India which produces large quantity (1000-2000mt/day) of Municipal Solid Waste (MSW) based on report in Journal of Environmental Research And Development .Around 70% of Garbage generated is only collected rest of the garbage is been thrown in to the nature .

IDEA:

According to the recent survey in 2017 Pune is one of the fastest developing city, it generates total quantity of waste is about 1300 to 1400 metric tons per day.Inorder to deal with this problem of Garbage Collection, we have came with a solution which we call as “CollectChunk” .This is a simple Android application which can be used by the any citizen in Pune who has a smart phone.

Basically this Idea can help us a lot as well as the activity between Government and citizens will Increase. This app consists of 2 Modules, viz.:

1. Collection of Waste on Demand :

* In this module any citizen who has some sort of Solid Waste or lives in a locality where there is a lot of Solid Waste can call the government people to collect the garbage to that area
* In this app we have provided a Address field which can be used for mentioning the address ,we can also improve our project by providing a Google map so that the citizen can mark the address of the locality with Solid Waste.
* The citizen who has informed can get instant Cash-backs based on the number of kg’s of weight
* This Cash-back can be generated by Government by Recycling the Solid Waste products.

1. Daily Garbage Collection activity :

* In this module, the Government provides the citizens with “Daily E-Truck activity”.
* The Government can send E-Trucks to the locality daily in order to collect solid waste from the houses of the people.
* If the E-trucks visits the locality then citizen can just tick on current i.e. Today’s daily activity.
* If the citizen has no ticked in the daily activity then there can be 2 reasons i.e. Either he must have forgotten or else E-truck has surely not visited
* If the citizen has forgotten to give the feedback then the app sets the remainder to complete the daily activity.

Some of the key benefits of the app are:

* The app is very handy to use as the daily activity requires only one tick per day.
* This app can be used for recycling waste and getting money from that recycled waste
* Actually, this app generates “MONEY OUT OF WASTE!”
* Every citizen will surely use this app as they are getting Cash-backs and coupons
* Some of the striking functionalities of the app are:

1.) It uses array adapters which can be used to minimize the size of the app 10MB

2.) Firebase provides Analytics Free which can be used to see the downloads of the app and drawbacks if any easily

3.) If used by many citizens we can make this same app for MACos, etc. operating systems or we can also use ionic for the same purpose.

POTENTIAL IMPACTS ON SOCIETY:

According to the survey in 2017, by 2031-2032 the Pune city will generate total of 3670.58 tons of Solid Waste. If we use this app daily then approximately the total waste generated will reduce to 300 tons per year.

Detailed demo video of the Solution : <https://www.youtube.com/watch?v=YKkG6KCTjXs>

Git-Hub link :

a.) For Video,Power point and Write up :[https://github.com/shan7030/Video-Power-point-and-Write-up-for-Collect-Chunk](https://github.com/shan7030/Video-for-Collect-Chunk)

b.)For Prototype code :https://github.com/shan7030/CollectChunk