



Reuse of Electronic Equoments for Educational Purposes

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REUSE OF ELECTRONIC EQUIPMENTS FOR EDUCATIONAL PURPOSES

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Abstract— The aim through this project is to provide knowledge on how there can be proper usage of electronic devices for educational purposes. The various electronic devices which play a very vital role in the education sector can be made available through the services provided by us through the website (project made by us). We all know electronic devices these are such huge part of humans day to day lives and its inclusion in the education sector gives an indirect moral boost and a new experience to the students to learn in a new and an innovative way. One can buy and sell their equipment through our website at a very reasonable rate and appropriate warranties.

Keywords— Database, Firebase, Full stack web, JavaScript, Web application, UI.

INTRODUCTION

The project is based on the domain of highlighting the importance of electronic devices in the education sector for those in institution which lack in providing e-education and for those institution which need an upgrade in their current equipment. The process revolves around both ways where one can buy as well as sell their equipment at a good to cost EDU-DROSS where it is re-uploaded in the form of refurbished devices where the buyer can get a quality product at a reasonable price on our website. In this way the resources and the various equipment required for e-learning can be made available through us in a very convenient way.

PROBLEM DEFINITION

To create the front end of the proposed social web application in React JS. The front end should have navigation bar that provides the client to choose among basic three options offered - Home, Login and Signup. These three pages should be part of authentication layer. Each of them should be accessible through buttons on navigation bar. The Signup page should ask client for data and provide facility to create a unique username (combination of string and integer) which can be later

used to login. The home page should provide option to login as well as fetch recent updates from other users. On basis on this database can be designed in firebase in higher semesters

MOTIVATION

After doing the literature survey, a thought came to our mind which gave us the motivation for the innovation of such ideas and project where we could provide a platform for buying as well as selling the equipments which one may need for e-learning. This gave us the intent and the motivation to come out of our comfort zone and make website related to the same issue so as to shorten the gap between those who have normal means of education and those who already have the access to e-learning

LITERATURE SURVEY

In the last years, there is an increasing acknowledgment of our impact on the environment due to our lifestyle, while the need to adopt a more sustainable approach concerning our consumption habits emerges as of particular significance. This trend regards industrial sectors affecting the consumption habits and, especially, electronic industry where the short life cycles and the rapidly developing technology have led to increased e-waste volumes. Most of the e-waste elements are led to landfills. The survey indicated some of the areas which lacked in the e-learning sector where they failed in providing the students the ability to provide content in a more logical manner.

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to increased e-waste volumes. Most of the e-waste elements are led to landfills. However, their partial recyclability, due to their material composition along with the unavoidable restrictions in landfills, has led to the development of retrieval techniques for their recycling and re-use, highlighting the significance of e-waste recycling, not only from a waste management aspect but also from a valuable materials' retrieval aspect

PROPOSED DESIGN

Looking at the problems where institutes lack in providing e-learning to the students which led to the creation of the website that involves a two way resolution for the consumers where they can buy as well as sell the goods at a very reasonable rate.

The Website is based on increasing the awareness of e-learning and hence we are the source who could provide you the equipment for the same. We sell goods at a reasonable rate where one can see 2 types of goods. First involves buying the original copy and second involves buying the refurbished devices.

The refurbished devices are the ones which are sold to consumers where we provide them a good amount for the same.

These devices are then repaired and sold as refurbished devices which are available at a much cheaper rate. Hence a 2-way resolution website has been created by us for the same. One can also use as charity using the donate us option in our website. Hence EDU-DROSS can be the place where you can trust for quality as well as customer satisfaction.

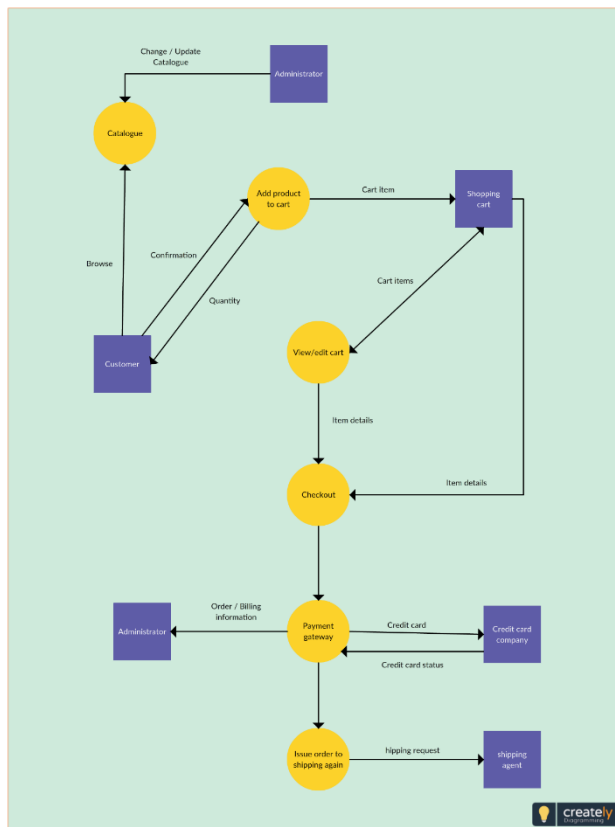
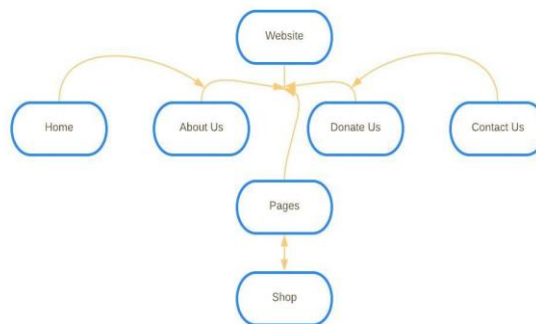


Figure 1. Data flow diagram



This project was based on using the e-waste resources as an educational means. In order to do so our guide instructed us to create an e-awareness website to contribute in the educational sector by selling old electronic goods considered as e-waste to educational institutes which do not have proper resources. This way or by this method we would combat future climatic problems and ensure the youth of tomorrow would have better means of education. We were also instructed to create a user-friendly webpage where visitors who are inspired by our visions and goals could easily contact us and join to ensure a better future

RESULT & DISCUSSIONS

Academic institutions have an important role in informing the students of the great environmental risks that could arise from e-waste issues. As such educational institutes can play a major role model in modifying their curriculum to accommodate the e-waste problems. One can always reduce the impact of e-waste pollution by recycling e-products or buying old ones this way no there is a lesser production cost and an effective way to manage general pollution.

We as such have created a solution that will allow institutions to spend less on infrastructure and technology but allow more focus on expanding the curriculum for a greener future. Specific areas that need science and technology inputs are, Cleaner technologies such as those for waste minimization, recycling, recovery and treatment Environment friendly manufacturing processes (e.g. leadfree soldering) Material flow analysis for benchmarking the

performance review of industries Greening of supply chains of manufacturers of electronic components. We as a group are trying to implement the above visions as a part of our bigger plan to create a safe and green environment by improvising and helping the educational sector so to also improve the next generation who would empower our nation.

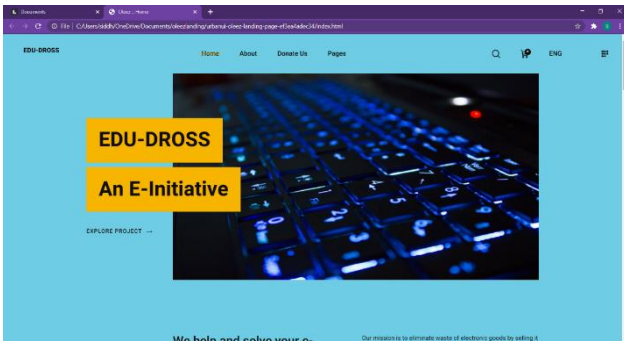


Figure 2. Home Page

The Home Page shown in figure 2, is the default page of the web application. It will show various user profiles registered on the social web as well as their latest post. It will also provide direct login and signup option.

The next webpage is About Us page. It's the first page with which user interaction begins. Every new user will be required to provide data such as email, password and a handle. These will be basic credentials which will be used for authentications at later stage. While developing this page we have taken special care of checking validity of email address provided by user. Our code checks whether the email address give as input by user matches the standard email format or not. The Signup process is deemed successful only when email is correct and input of password and confirm password matches with each other. While these things can't be demonstrated just at this stage but keeping database design in mind, we have already created provision for that in our front-end code.

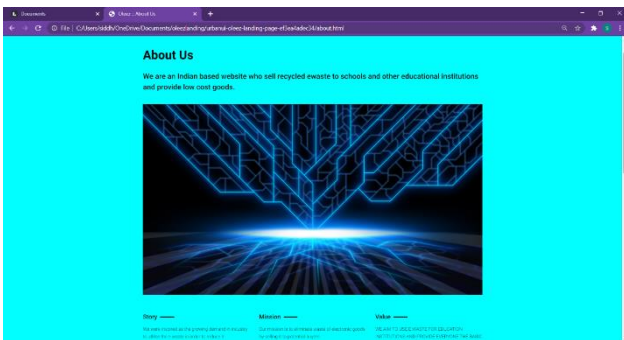


Figure 3. About Us Page

The next web page that we have created is Contact Us page. It will act as an intermediate between

authentication and user data layer. The access to profile is granted only if user enters the correct credentials.

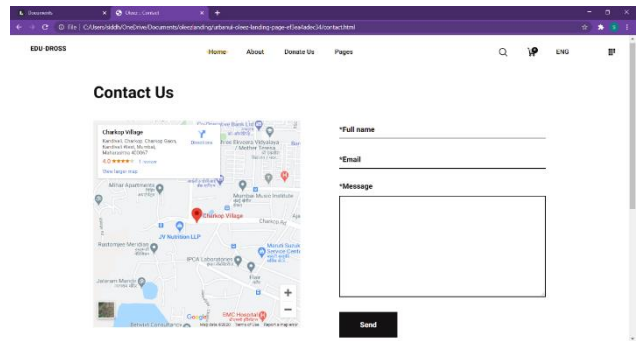


Figure 4. Contact Us Page

SCOPE OF PROJECT

Academic institutions have an important role in informing the students of the great environmental risks that could arise from e-waste issues. As such educational institutes can play a major role model in modifying their curriculum to accommodate the e-waste problems. One can always reduce the impact of e-waste pollution by recycling e-products or buying old ones this way no there is a lesser production cost and a effective way to manage general pollution. We as such have created a solution that will allow institutions to spend wisely on infrastructure and technology but allow more focus on expanding the curriculum for a greener future. Cleaner technologies such as those for waste minimization, recycling, recovery and treatment Environment friendly manufacturing processes (e.g. leadfree soldering) Material flow analysis for benchmarking the performance review of industries. Greening of supply chains of manufacturers of electronic components We as a group are trying to implement the above visions as a part of our bigger plan to create a safe and green environment by improvising and helping the educational sector so to also improve the next generation who would empower our nation.

CONCLUSION

. While advances in technology continue to improve and enrich our lives, product lifecycles are getting shorter. This means an increasing stockpile of end-of-life equipment that needs to be managed. When discarded, much of this equipment ends up in landfills in developed countries or is exported to third world countries. Electronic equipment contains harmful toxins which, when released into the Environment it can contaminate water, land and air. While there are many ways to dispose of unwanted electronics, there are few guarantees that the resulting e-waste will be disposed of responsibly. This is a major issue, either in the developed countries due to the

amounts generated or in developing countries due to lack of recycling systems.

It is clearly unethical for the developed countries to dump their E-waste in developing ones. Government control should be practiced to avoid such actions. Citizens have a responsibility in spreading the awareness on this issue. Engineers should be in the forefront since they master the technical background of the issue. A preliminary survey indicated that E-waste is hardly covered in engineering faculties

worldwide.

E-waste management can be introduced as separate courses. Related topics can be embedded in related courses, as well as topics for final year projects. They can also be addressed during industrial training.

More funding as well as directed research is still needed to find alternate materials to tackle the E-waste problems. This is a golden chance for research institutions our country to take the lead in relieving the environment from such hazards. Technological issues that pose environmental threats need to be carefully examined.

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