



***PROJECT NAME: Recycle***

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REVISION HISTORY			
DATE	VERSION	DESCRIPTION	AUTHOR

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## **INTRODUCTION**

This document provides an explanation on recycling so that every user stuck can refer to this document for details and explanations he may need, how to use the platform and what is the benefit of this project,

The main goal of the recycling platform is to provide a service to the community, which is to facilitate the disposal of unwanted materials to maintain the environment from pollution.

## **INTENDED AUDIENCE AND PERTINENT SECTIONS**

- Developers who can review the project's capabilities

They more easily understand where their efforts should be

It aims to improve or add more features to it (design and Code).

- Project testers can use this document as a basis for them  
Test strategy because some errors are easier to find using  
Requirements document. This way, the test becomes more  
Organized

- Users of this app who want to read about it  
What this project can do.

## **PROJECT SCOPE**

- Reducing the problem of global warming because recycling removes us from toxic and harmful substances emitted by the disposal of waste by burning.

- Maintaining a clean environment and preserving the ecosystem. Recycling removes us from the old ways of getting rid of waste.

- Providing job opportunities for young people by working in specialized factories for recycling.

- The partners will be the laboratories interested in material recycling, the Ministry of Environment and companies that bid to encourage users to recycle materials

- The target group is all people who are interested in preserving the environment from pollution

## DOCUMENT CONVENTIONS

**CRUD operations** create, read, update, and delete:-

Create Operations:

Create or insert operations add new documents to a collection. If the collection does not currently exist, insert operations will create the collection.

Read Operations:

Read operations retrieves documents from a collection.

Update Operations:

Update operations modify existing documents in a collection.

Delete Operations:

Delete operations remove documents from a collection.

**MERN** (MongoDB, ExpressJS, ReactJS, NodeJS)

MongoDB: A document-oriented, No-SQL database used to store the application data.

NodeJS: The JavaScript runtime environment. It is used to run JavaScript on a machine rather than in a browser.

ExpressJS: A framework layered on top of NodeJS, used to build the backend of a site using NodeJS functions and structures. Since NodeJS was not developed to make websites but rather run JavaScript on a machine, ExpressJS was developed.

ReactJS: A library created by Facebook. It is used to build UI components that create the user interface of the single page web application.

**MD5** type of encryption by Hashing.

## REFERENCES

[www.mongoosejs.com](http://www.mongoosejs.com)

Mongoose provides a straight-forward, schema-based solution to model your application data.

[www.mongodb.com](http://www.mongodb.com)

It is categorized as a NoSQL database program which stores data in JSON-like documents.

[www.stackoverflow.com](http://www.stackoverflow.com)

Stack Overflow is an open community for anyone with icons. It helps us find answers to the toughest coding questions.

[www.reactjs.org](http://www.reactjs.org)

React makes it painless to create interactive UIs.

# **DESCRIPTION**

## **PRODUCT PERSPECTIVE**

Greenspotjo.com:-

provides a similar service in collecting materials from all users, companies or malls, but exchanging them for money that distinguishes our platform is replacing the materials for points that are in your account and you can exchange these points with one of the offers inside the platform in the offers section

## **FEATURES**

Recycle materials:-

The user submits a request to the admin of the materials that he wants to get rid of and the admin accepts this request and communicates with the user to agree with the user on how to deliver these materials against a set of points that are added to the user where he can exchange them with one of the offers on the platform.

## **USER OVERVIEW**

This platform belongs to every user or company that has these materials that need recycling. Examples of these materials are plastic like water bottles or shampoo boxes etc. or minerals like cola cans or food and paper that the user wants to get rid of.

## **OPERATING ENVIRONMENT**

It works on all browsers such as Chrome, Firefox or Opera and on any operating system, but it must be connected to the Internet in order for the user to access the platform.

## **CONSTRAINTS: IMPLEMENTATION / DESIGN**

- 1- Storing data in Local Storage and using it in another component and sending information by using history
- 2- unexpected response from server using query in mongodb
- 3- upload images to the server

## DOCUMENTATION

It is a platform that makes it easier for people to recycle materials instead of throwing or destroying them by burning or burying. And it is easy for the user to submit a request to recycle the materials until they are taken by the requesting party and in exchange they are given points that can collect points and exchange them with one of the offers within the site.

our business model are :-

- 1-Sale of materials to be recycled to those interested in them, such as factories.
- 2-partners that give to users offers based on some contract with them.

## ASSUMPTIONS / DEPENDENCIES

- 1- Crash the server that hosted the project.
- 2- Connection speeds maybe effects on platform design and speed to get result.
- 3- version of web browser
- 4- web browser type

## SYSTEM FEATURES

### Recycle Materials

<b>DESCRIPTION AND PRIORITY</b>	The user submits a request to the admin of the materials that he wants to get rid of and the admin accepts this request and communicates with the user to agree with the user on how to deliver these materials against a set of points that are added to the user where he can exchange them with one of the offers on the platform.
<b>STIMULUS / RESPONSE SEQUENCES</b>	<ol style="list-style-type: none"><li>1- open platform.</li><li>2- Login to the user account.</li><li>3- Move to the Add material or send request page.</li><li>4- Fill out the request to add a material.</li><li>5- Click Send Request.</li></ol>
<b>FUNCTIONAL REQUIREMENTS</b>	There is a set of validation if the request is empty gives an alert that the request is empty and if the quantity is less than zero gives an alert that the quantity has an error it must be more than zero.

## **REQUIREMENTS OF EXTERNAL INTERFACE**

### **USER INTERFACES**

1- The registration page must fill in the requirements to enter the platform, such as the user name, email, password, phone number, and location. After that, if the information is correct, such as the e-mail, it must be unique in the db and then it will transfer you to the login page to log in.

2-The login page contains two fields of e-mail and password, and when clicking on the login if it is not registered in the site will appear after the error in the user or password.

3- The dashboard page of the user has two options, you can send a request to add materials and view submitted requests.

4- A request for materials page consists of two fields, first the type and the second the quantity and when the quantity is less than a negative it gives an error the number must be more than zero and if the fields are empty it shows you a message you must fill in the required fields.

5-The user profile page displays all information related to the user and can change his personal photo

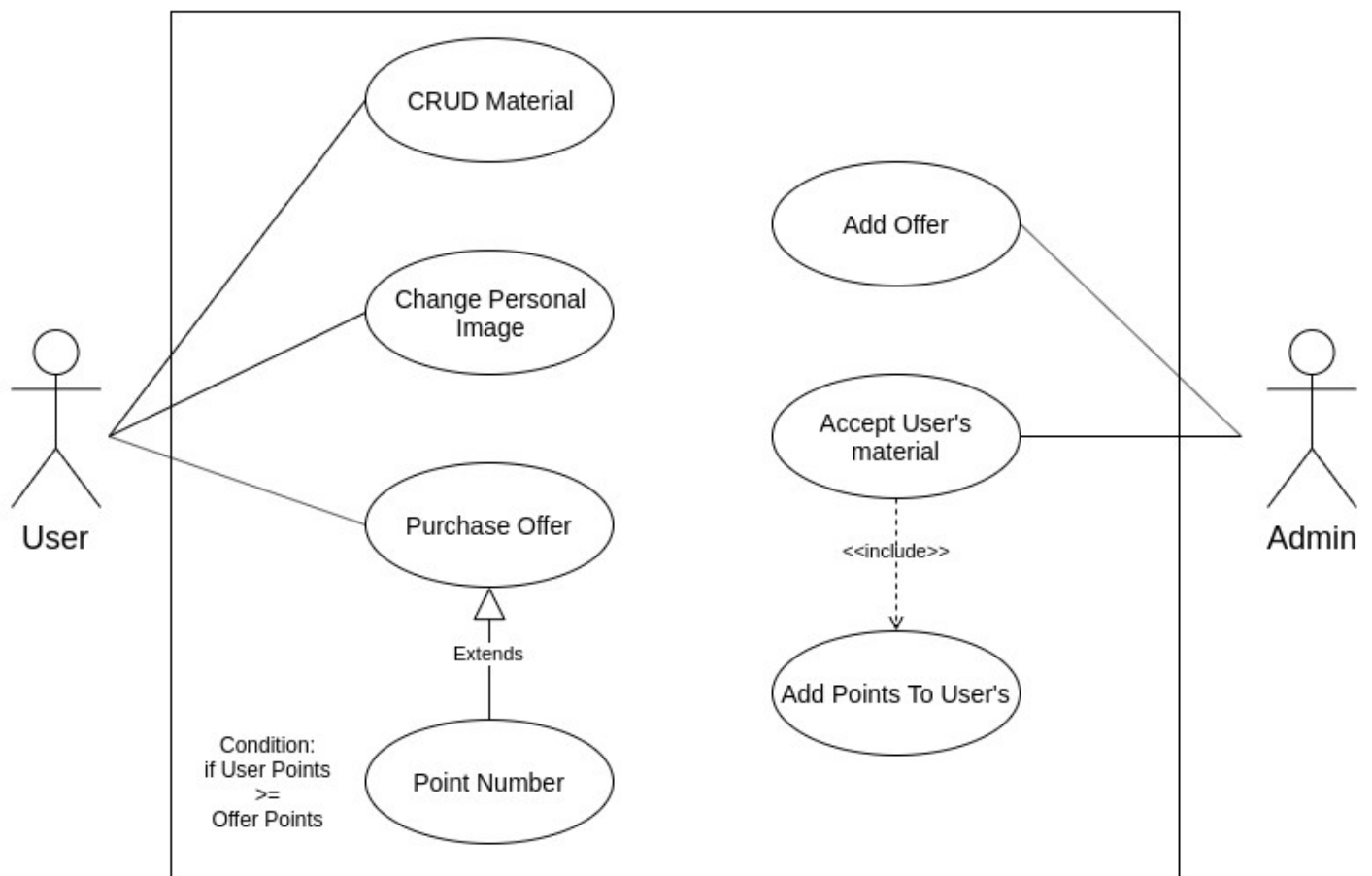
6-The admin dashboard page displays all of the user's applicants and can accept the request

7-The admin offer page can add a new offer or remove an offer.

8-The offer page for the user displays all the offers that the admin has added and can buy one of the offers

## Use Case Diagram

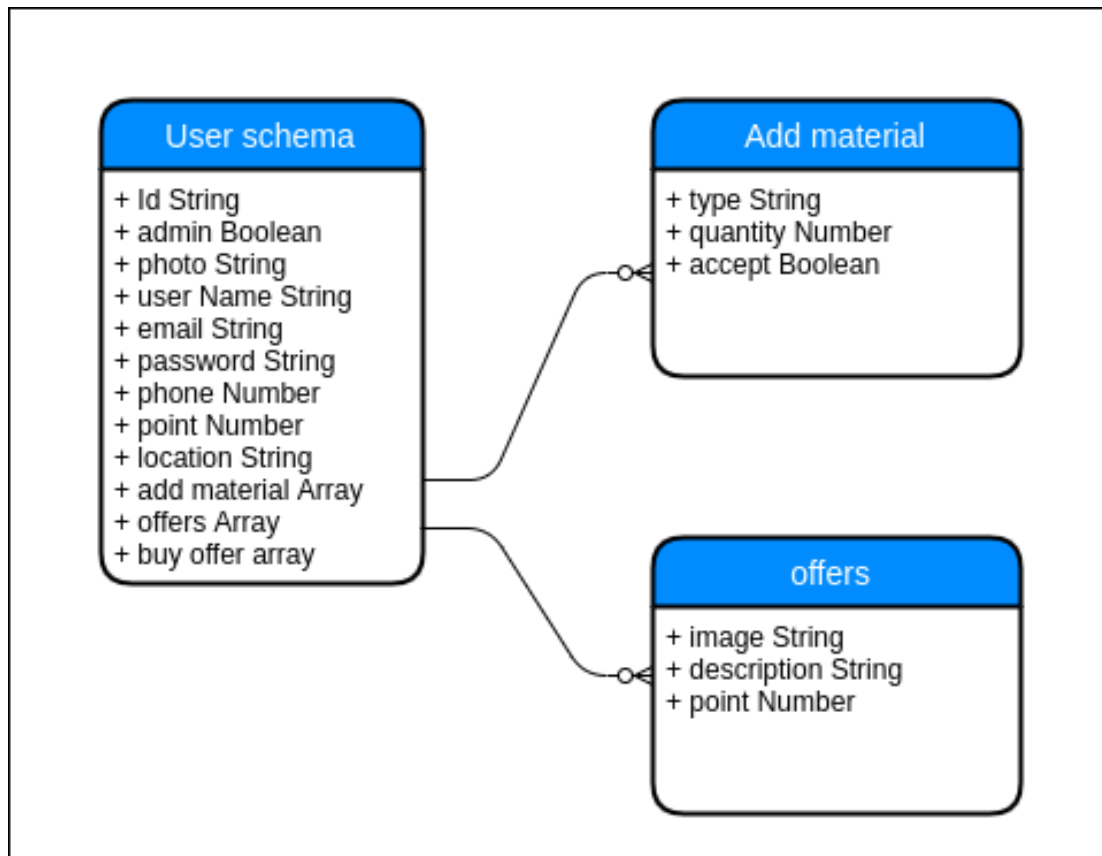
example:





## Database Design

database schema example:



## HARDWARE INTERFACES

any device which has a web browser.

## SOFTWARE INTERFACES

cross-platform(any os) and mongodb version 4.2.0.

## COMMUNICATION INTERFACES

use http protocol to send and receive to/from data server.

## ***ADDITIONAL NONFUNCTIONAL REQUIREMENTS***

### ***SECURITY***

Encrypt password by MD5.