### **Project Report: EcoCycle ( a one page website on recycling guidelines )**

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**Chosen Domain & Task:**

The domain for the project is under Health and wellness, specifically recycling and sustainable living. EcoCyle is a responsive single page web application that aims to help educate people on how to recycle waste materials.

**Design Approach:**

The design focus for the web application is to be very ***informative***, ***minimal*** and ***visually*** ***appealing***. The initial design prototypes were iterated over by views of friends and sample design ideas on the internet (pinterest and google ) all to incorporate a holistic UCD approach.

**Key Features:**

1. **Material Recycling Guide Section:** This section shows users detailed but brief information on the kinds of materials recyclable and how to prepare them for recycling.
2. **Recycling Centers Section:** This is a Google Map section that loads up showing recycling centers based on the users location.

**Interactive Components**

1. **Loading of the Google Map:** The Google map frame has a progress bar that tells the users of the system status before the map loads.
2. **Quiz Submit and reset buttons:** The quiz section action buttons both have a confirmatory dialog box to reduce user accidental clicks and also communicate with the users of the actions they are about to take.

**Application of Nielsen’s Heuristics**

1. **Aesthetic & Minimal design** - simple layouts, visually appealing colours and subtle animations styles were deployed to make the system aesthetically clean but functional.
2. **Consistency and Standards** - standard fonts and relatable icons were used in designing the system, reducing the learnability rate and easing application use.
3. **Visibility of system status** - map section tells the system status by showing a progress bar indicating to the users the map is/has loaded, which easily interprets the system function.
4. **Error prevention** - quiz submit & reset buttons prompts the users of their actions and confirms before processing critical functions, this reduces errors from the users.
5. **Flexibility and efficiency of use** - the responsive design implementation of the web application allows it to load and function on all devices.
6. **User control and freedom** - freedom for users to open the map on a large scale when viewing the map in the pop up frame or reset the quiz taken.

**Usability Evaluation**

Usability testing was used as the secondary usability evaluation to test how the system was performing as users interact with it and also the feedback they gave while using the application.

**Challenges & Innovations**

1. Incorporating Map feature into the application was a challenge; the right size scale to add to the application without taking attention away from the main goal and access to the map api wasn’t free.

The innovation was to frame the Map into a web pop up dialog box that shows up when a button was clicked, and also to use an embedded hard coded location (which is fixed, instead of being dynamic for each user location) to avoid paying for the Map API.