

The title of your project :

EcoCraft: Turn Trash into Treasure

The group members:

- Laureenne Oliver - lxo230001
- Waseef Kabir - wmk220000
- Amina Haque - ash200012
- Dharshini Mahesh - dxm210052
- Arhum Khan - axk210013
- Momo Qais - mfq210000
- Mohammad Islam - mai230003

What you will be doing:

Our project will involve creating a database of different craft ideas made from recycled materials. Users, such as parents, teachers, and students, can input recycled items, and the system will suggest possible crafts based on the input. This encourages recycling in a fun, educational way for schools and children.

Detailed description of your motivation (why you chose to do this particular project), where you expect your design to be used in real life:

- The main motivation behind our project is to reduce waste in a fun and creative way.
- Database of arts and crafts projects, mainly using recycled materials
- There could be a relation of different articles of waste that could then be converted to a material for a craft
- Relation of tools needed for various crafts
- Relation of materials that are not typically waste but is needed
- Cost of these materials/tools should be included
- We expect that the database design can be used in places such as schools or at home where children can create craft ideas with materials that already exist.

List of tasks delegated to each member: the task delegation should be distributing what to do from start to completion of the project to each member of your group. It does not have to be too detailed. One sentence for each member is sufficient.

Major tasks: Finding crafts online or coming up with crafts

Requirements Gathering & Design:

- Define user inputs (e.g., list of recyclables, filters, etc.). ~ Amina
- Design the output format for craft ideas (e.g., text, images, difficulty). ~ Laureenne

Database Design:

- Create a database to store craft ideas and associated materials. ~ Arhum
- Design a schema that links recyclable materials to corresponding craft ideas. ~ Arhum

Frontend Development:

- Build a user-friendly interface where users can input the recyclables they have on hand.
~Laureenne
- Create a way for users to view, search, and filter craft ideas based on recyclables. ~ Amina

Backend Development:

- Set up a server to handle user input, process it, and return matching craft ideas. ~Dharshini
- Implement logic to match user-provided recyclables with relevant craft ideas from the database. ~Momo

Craft Ideas Matching Algorithm:

- Develop an algorithm that takes the recyclables input by users and finds crafts that use those materials. ~Waseef
- Optimize for partial matches, allowing users to see crafts even if they don't have all materials. ~Mohammad

Tester:

CS / SE 4347.007

Proposal

- Test the database design to identify bugs and ensures that all features work as intended.
~Mohammad
- Create test cases for input validation, matching accuracy, and UI responsiveness.
~Dharshini

Are you interested in writing a scholar paper in the end (no extra grade advantage)

Yes