Back End Engineering

(22CS026)

Project Proposal

Semester – V (Batch- 2022)

Eco-Conscious

Department of Computer Science and Engineering
Chitkara University Institute of Engineering & Technology, Chitkara University, Punjab

CHITKARA UNIVERSITY

1. Project Statement:

Eco-Conscious is an eco-friendly e-commerce platform that promotes sustainable products. It provides users with eco-conscious shopping options and suggests alternative products based on environmental impact scores. The platform aims to educate consumers and encourage responsible consumption by offering transparency on product sustainability. Its goal is to reduce the ecological footprint and foster a greener future through mindful purchasing decisions.

2. Approximate duration (in hours) to complete the project:

1100 – 1150 hours

3. Proposed Project In charge:

Kanchan Yadav

4. Team Members along with roll numbers:

- Jashanjit Kaur (2210990440)
- Jasjeet Kaur Saini (2210990442)
- Kamaljeet Kaur (2210990470)
- Kanchan Yadav (2210990471)
- Kashika (2210990493)

5. Check Points:

a. Does the project statement result in a product? If yes, what type of product?

Yes, the project statement results in a product. The product is an eco-friendly ecommerce platform that offers users sustainable shopping options and recommends environmentally conscious alternatives

b. If it is a product, can a prototype be made, if not, what is it, which we can produce that our teachers can evaluate.

Yes, a prototype can be made for this product. A basic version of the eco-friendly ecommerce platform can be developed, showcasing features like browsing sustainable products and suggesting environmentally conscious alternatives.

c. Does the project statement use multiple concepts to achieve the outcome? (yes/no) Yes

d. Does it have enough time for our team members to do sufficient amount of work? (yes / no) Yes

6. Technical Nodes:

Subject / Area / Topic	Technical nodes
Frontend Development	- Eco-Conscious platform is built using React, - Dynamic user interface.
Backend Development	- The backend uses Node.js and Express for fast and scalable request handling. - This setup ensures smooth communication between the frontend and backend.
Database	- MongoDB stores product data, user profiles, and environmental impact scores.

7. Prerequisites (in terms of knowledge, concepts and material) for doing the Project:

a. Frontend Development:

- HTML/CSS: Structuring and styling the eco-conscious product pages.
- JavaScript: Adding interactivity for product selection and recommendations.
- React: Building dynamic UIs for eco-friendly product suggestions and user interactions.

b. Backend Development:

- Node.js: Handling server-side logic for product data and recommendations.
- Express: Creating RESTful APIs for user interactions and product retrieval.

c. Database Management:

- MongoDB: Managing product details, user profiles, and environmental impact scores.
- CRUD Operations: Performing basic operations for adding, retrieving, and updating eco-friendly products.

8. Material that may be required to make the project and where it might be available:

a. Development Tools:

• Code Editor: Visual Studio Code for writing and editing code. • Version Control: Git and GitHub for tracking changes and collaboration.

b. Libraries/Frameworks:

- React: JavaScript library for building dynamic, eco-conscious user interfaces.
- Node.js & Express: Backend tools for server-side logic and handling product data.
- MongoDB: NoSQL database for managing product details and environmental impact scores.

c. Deployment Platforms:

- Heroku/Vercel/Netlify: For deploying the Eco-Conscious platform and making it accessible online.

9. What could the total cost of the project?

The total cost of the project is $0, as it will be developed using free tools and resources.

10. Resources available to us:

Online Resources: Documentations:

- https://expressjs.com/
- https://nodejs.org/en
- https://www.mongodb.com/
- https://react.dev/

- Project Team:
  Skills and expertise in frontend, backend, and design