

Project Design Phase
Proposed Solution Template

Date	6 August 2025
Team ID	PNT2025TMID10267
Project Name	GreenCart –Grocery-WebApp
Maximum Marks	2 Marks

Proposed Solution Template:

S.No.	Parameter	Description
1	Problem Statement (Problem to be solved)	Customers need a seamless, responsive, and secure online grocery-shopping experience; sellers need an intuitive platform to list and manage products. Existing solutions often lack streamlined seller onboarding, real-time inventory updates.
2	Idea / Solution description	Build a full MERN-stack platform (“GreenCart”) with:- React + Tailwind CSS SPA for browsing, cart & order flows- Express.js API with JWT-based auth (HTTP-only cookies)- MongoDB/Mongoose data layer- Stripe (online) & COD support
3	Novelty / Uniqueness	<ul style="list-style-type: none"> • Unified customer & seller workflows in one codebase • Secure JWT in HTTP-only cookies (XSS/CSRF protection) • Cloudinary CDN for instant image delivery • Serverless deployment on Vercel for auto-scaling
4	Social Impact / Customer Satisfaction	Empowers local grocers to go online (broadens market reach), reduces waste through real-time stock updates, and gives consumers fast, convenient access to fresh groceries with flexible payments—boosting trust and repeat usage.
5	Business Model (Revenue Model)	<ul style="list-style-type: none"> • Transaction commission (percentage per order) • Premium seller subscriptions for featured listings & analytics • Sponsored product placements/ads
6	Scalability of the Solution	<ul style="list-style-type: none"> • Stateless Express functions on Vercel (horizontal scaling) • Managed MongoDB Atlas cluster with auto-sharding • Cloudinary’s global CDN for media • Serverless Stripe webhooks ensures payment handling scales seamlessly