

## Project Design Phase Proposed Solution Template

<b>Date</b>	19 February 2026
<b>Team ID</b>	LTVIP2026TMIDS45121
<b>Project Name</b>	shopsmart: your digital grocery store experience
<b>Maximum Marks</b>	2 Marks

### Proposed Solution :

S.No	Parameter	Description
1	<b>Problem Statement (Problem to be solved)</b>	Busy individuals and working families face difficulty in purchasing groceries due to lack of time, long queues, limited product availability visibility, and fragmented online grocery services. There is no centralized, reliable, and user-friendly platform that ensures real-time stock updates, secure payments, and smooth order management.
2	<b>Idea / Solution Description</b>	ShopSmart is a full-stack digital grocery web application built using MERN stack (React, Node, Express, MongoDB). It allows users to browse products, add items to cart, place orders, and track deliveries seamlessly. It provides real-time stock visibility, secure authentication (JWT-based), role-based access (Admin & User), centralized product management, and smooth checkout process.
3	<b>Novelty / Uniqueness</b>	<ul style="list-style-type: none"> <li>• Role-based access system (Admin controlled backend management)</li> <li>• Real-time inventory updates</li> <li>• Centralized product &amp; order management</li> <li>• Secure JWT authentication</li> <li>• Clean UI with responsive design</li> <li>• Scalable backend architecture using REST APIs</li> </ul>
4	<b>Social Impact / Customer Satisfaction</b>	<ul style="list-style-type: none"> <li>• Saves time for working professionals and families</li> <li>• Reduces crowding in physical stores</li> <li>• Enables convenient shopping from home</li> <li>• Ensures secure transactions and data privacy</li> <li>• Provides personalized and smooth user experience</li> </ul>
5	<b>Business Model (Revenue Model)</b>	<ul style="list-style-type: none"> <li>• Commission on product sales</li> <li>• Delivery service charges</li> <li>• Featured product promotions for sellers</li> <li>• Subscription model for premium delivery benefits</li> <li>• Advertisement placements for grocery brands</li> </ul>

6	<b>Scalability of the Solution</b>	<ul style="list-style-type: none"><li>• Built on scalable MERN stack architecture</li><li>• MongoDB supports large-scale data handling</li><li>• Can be deployed on cloud platforms (AWS, Azure, etc.)</li><li>• Supports horizontal scaling and microservice expansion</li><li>• Can be expanded to mobile application in future</li></ul>
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