# Full-Stack Developer Assignment – Catalog with Variants & Add-ons

## Task

Build a mini catalog system that supports products with variants, types, and for food items, allows customers to select add-ons (like extra cheese, toppings, sauces, etc.).

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### Backend (Node.js, Express, TypeScript):

- APIs to:
- Add Product Type (e.g., Apparel, Electronics, Food)
- Add Product (Each product belongs to a type; fields: name, description, product type, images)
- Add Variants for Product (e.g., size, color, price per variant, stock per variant, SKU)
- Add Add-ons (for Food Items only; e.g., extra cheese, double toppings, sauce, each with price)
- List all Products (with types, variants, and possible add-ons for food items)
- List Products by Type (e.g., only Food or only Apparel)
- Database: **PostgreSQL**

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### Frontend (React + TypeScript):

- Catalog Page: Show all product types; list products grouped by type
- Product Detail Page:
- Show all variants (select size, color, etc.)
- For food items: Show available add-ons (checkboxes/toggles, each with price), allow the user to select variants and add-ons, and see final price update dynamically
- Show stock, price, SKU
- Navigation: Filter or switch between product types

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Notes:

- No cart or checkout—catalog browsing only
- UI should make it clear when add-ons are available (food items only)
- Use mock images if needed; focus is on structure and variant/add-on handling

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Deliverable:

- Share the GitHub repo with backend and frontend code
- Create a video and share for complete frontend