Scenario:

You are managing a catalogue of 5000 products and servicing 25000 pincodes. When a user selects a product and enters a pincode, the app must display the estimated delivery date based on the logistics provider associated with the pincodes

Logistics Providers:

1. **Provider A**: Same-day delivery for orders placed before 5 PM, provided the product is in stock in the warehouse.
2. **Provider B**: Same-day delivery for orders placed before 9 AM; next-day delivery for orders placed after.
3. **General Partners**: Delivery within 2 to 5 days depending on the pincode (metro, non-metro, or tier 2-3 cities).

Challenge Details:

1. **Product Selection**:

   ○ Display a list of products for users to select from.
   ○ Simulate product stock availability (e.g., 80% of products are in stock for any warehouse).

2. **Pincode Input**:

   ○ Allow users to input a valid pincode.
   ○ Validate the pincode and associate it with the appropriate logistics provider.

3. **Delivery Date Estimation Logic**:

   ○ Use the pincode and provider to estimate the delivery date:
     ■ **Provider A**: Same-day if ordered before 5 PM and in stock.
     ■ **Provider B**: Same-day if ordered before 9 AM, next-day otherwise.
     ■ **General Partners**: Delivery within 2-5 days depending on the region.

4. **Timer for Same-Day Delivery**:

   ○ Add a visible countdown timer for **Provider A** and **Provider B** orders to indicate how much time remains for qualifying for same-day delivery. This should function similarly to Amazon's countdown timer.

5. **Date and Time Awareness**:

   ○ Ensure the application accurately considers the current date and time to calculate delivery estimates.

6. **Hosting Requirement**:

   ○ Host the application on a platform like Vercel, Netlify, or any other suitable hosting service.
   ○ Provide a URL where the application can be accessed and tested.

Requirements:

- The app must be built using **React Native**.
- Ensure the UI is responsive and user-friendly.
- Handle cases like invalid pincodes, products out of stock, and missing cutoff times for same-day delivery.
- Write clean, modular code with comments as needed.

Bonus Points:

- Add a **countdown timer** for the remaining time to qualify for same-day delivery for **Provider A** and **Provider B**.
- Optimize performance for handling large datasets of products and pincodes.

Product Display Page Example: