

Badly Brewed Coffee

Better than your badly brewed cuppa at home

Background to the client

Kenny Brewster is the slightly eccentric owner of *Badly Brewed Coffee (BBC)* - a small but much-loved coffee shop tucked away near Steel City's bustling university quarter.

What started as a one-room cafe with mismatched mugs and a loyal group of regulars has grown into a busy spot where students, lecturers, and freelancer techies queue daily for a caffeine fix. Known for its cheeky branding and "imperfectly perfect" blends, BBC is now ready to take its next step - building an online system to modernise its loyalty scheme and coffee bean sales.

Kenny wants to introduce a simple digital system that helps BBC serve its customers more efficiently and keeps better track of loyalty rewards and online orders. His goal is to simplify day-to-day operations while maintaining the café's friendly, local feel.

Problem to be solved

BBC currently relies on paper loyalty cards and email based bean orders, leading to misplaced records, manual calculations, and confusion at the counter.

Customers often forget how many coffees they've ordered, and baristas struggle to verify when someone qualifies for their free drink. Online bean sales are growing, but the process is slow and error prone, with Kenny manually confirming payments through bank transfers.

BBC needs a simple but reliable digital system that:

- Manages customer loyalty cards automatically
- Tracks in-store coffee purchases and rewards
 - Currently five different type of coffee are served - latte, americano, cappuccino, flat white and cortado
- Enables secure online bean purchases through a trusted external checkout - all payments are handled by them. Once a payment is processed it will get updated on BBC's system as paid or owed as online customers can choose to make in-person payments in either cash or card
 - Currently, BBC offers coffee beans from three origins - Arabic, Ethiopian, and Brazilian; available in three roast levels - light, medium, and dark.
- Gives staff and managers clear access to orders, offers, and profitability insights

Key requirements - Customer Facing System

- Customers can create an account and receive a unique loyalty card number (digital or printable).
- They can buy coffee in-store and view:
 - Number of coffees bought and stamps collected
 - After each coffee sale, the system automatically adds one loyalty stamp
 - Free coffee eligibility for the tenth stamp (*every 10th coffee free, up to £5 value*)
 - Their purchase history and available promotions
- They can buy coffee beans online:
 - Add beans to a shopping cart and proceed to an external payment gateway (e.g. PayFriend) - they get a payment reference ID with store order number.
 - BBC's system never handles card details directly - only stores the transaction status, store order number and payment reference ID.
 - Successful transactions mark the order as paid; cancelled or failed payments remain unpaid.
 - Loyalty stamps do not apply to bean orders, but loyalty cardholders receive a personalised discount on beans after certain number of coffee and bean buys, based on their purchase history - details explained in later page
 - Customers can choose to either pick-up their coffee bean order in-store and have it posted - extra charge applied for postage at checkout
 - Customers are directed to a separate page with order number for successfully placed order
 - For postal delivery, customers are provided with an external tracking ID to track their order

Key requirements - Customer Facing System (continued)

- All coffee bean and coffee purchases made either in-store or online by a customer must be associated with the same account
- Customers can purchase coffee online only after signing in to an existing account or creating a new one. For in-store purchases, an account or loyalty card number is not required.
- Customers mark favourite beans for quick online reordering
- Can contact help page for account or order issues and refund requests (with reason) - customers need to fill up a form and submit. They get a ticket number. Refunds can only be done for beans only and can be posted back or returned in-person
- For postal returns - a return label with external tracking ID is provided by the store
- Can update personal details - postal address, email address and phone number

Key requirements - Barista system

- Baristas can search for customers by loyalty number or name
- They can view every in-store and online sale, mode of payment - cash/card and the relevant sale amount and payment reference ID - no card information stored in the system and all transactions are handled by third party
- Can add loyalty stamp manually
- When a customer reaches nine stamps, the next coffee (up to £5) is free
- If the chosen drink costs more than £5, the system displays the difference to pay
- Staff have the option to verify refund cases (for coffee beans only) and refund the customer in the original payment method. The accounts are updated accordingly.
- Baristas can view a daily summary of sales and free coffees claimed
- Can generate postage labels with external tracking ID - either for coffee beans delivery or return postage for refunds
- Can view if a coffee has been delivered - this information is provided by the package delivery company that BBC has partnered up with

Key requirements - Manager

- Managers can:
 - Add or update available drinks and bean types, including names, descriptions, and prices
 - Update stock for different types of beans
 - Adjust loyalty discounts for customers based on their coffee and bean purchases
 - View key metrics such as:
 - Total coffees sold separated into different types
 - Total Beans sold separated into different roasts and origins
 - Free coffees redeemed
 - Top customers and products
 - Amount of refunds processed
 - Total number of loyalty card/account holders at any given time
 - Monthly change in account signups
 - Managers dashboard should contain which beans and coffee are the most sold so that the management
 - Can decide on the business strategy for maximum profitability - including expenditure on advertisement and discounts
 - Help understand seasonal variation in customer's purchase pattern

Key requirements - Admin

- Admin account can,
 - Can help reset users' account password
 - Can suspend user accounts that are not longer active for six months
 - Can delete employee accounts when they leave the job
 - Can view user activity logs and history
 - Can manually update paid orders with a payment reference ID, if there are any errors in payment processing
 - Should be able to access the view of any manager or staff/barista account

Additional requirements

- All users must be able to log in securely; passwords stored and accessed safely
- the BBC system does not process payment details directly - all online purchases will be redirected to third-party website
- Interface should be responsive, suitable for desktop and mobile use.
- Keep the interface simple, friendly, and consistent with BBC's brand identity.
- Maintain accessibility standards where possible (readable fonts, colour contrast, etc.).

Avoid the following situations

- Storing or processing any credit/debit card information directly in BBC's system
- Handling tips, partial payments, or chargebacks
- If an order is returned - assume all items in the order will be returned and not certain portions of it
- Implementing dual-factor authentication
- Complex delivery or courier tracking systems
- Automatic stock management, taxation logic, or integration with supplier systems
- Any AI, chatbots, or recommendation engines