

DCB Business Logic

1. What is DCB (Direct Carrier Billing)?

It's a billing method that allows users to pay for digital services using their mobile phone credit or monthly bill, without needing a credit/debit card.

Example: Subscribe to a video service for \$1 per day, charged directly from mobile balance (e.g., Zain, Orange).

2. Subscription Flow

Main Steps:

1. User enters their phone number.
2. An OTP is sent to their phone.
3. User enters the OTP.
4. System verifies OTP and charges the user.
5. User is marked as "Subscribed" and gains access to the service.

Important Notes:

- Every step is logged and secured.
 - Explicit user consent is required.
 - A free trial might be included.
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3. Charging Logic

You must understand:

- Is the charge **daily, weekly, or monthly?**
- Is it **auto-renewed?**
- Is there a **first-time free trial?**
- Are users **notified before charging?**

Charging rules define when, how often, and how much users are billed.

4. Unsubscribe Logic

- How can the user unsubscribe? (via link, SMS, app, etc.)
 - Once unsubscribed:
 - Stop all future charges.
 - Delete access to service.
 - Log the unsubscribe time.
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5. Resubscription Logic

- A user can re-subscribe after canceling.
 - New subscription is treated like a fresh one.
 - Check if the number is already subscribed before allowing.
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6. Renewal & Validity

- Every subscription has a **validity period** (e.g., 1 day).
 - If not canceled, it **auto-renews**.
 - If there's no balance:
 - Retry later.
 - Or cancel automatically after N failed attempts.
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7. Telco Integration (Mobile Operator APIs)

All key actions happen through operator APIs:

| Operation | Description |
|---------------|---|
| Send OTP | Sends a verification code to user |
| Verify OTP | Confirms the correct code was entered |
| Charge | Discount the amount from user's balance |
| Unsubscribe | Cancels the subscription |
| Check Balance | (Sometimes) used before charging |

You should understand:

- API URL & structure
 - Security tokens
 - Retry logic
 - Operator-specific rules
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8. Regulations & Consent

- Each country/operator has its own regulations.
 - Some require showing price clearly before charge.
 - Some **don't allow automatic charging without OTP**.
 - User consent must always be **explicit and logged**.
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9. Error Handling & Retry Logic

- If OTP fails to send: allow retry X times.
 - If charging fails:
 - Retry after some time.
 - Notify the user.
 - Optionally cancel after N failures.
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10. Fraud Prevention

- Limit how often a user can subscribe (e.g., once/day).
 - Block invalid or blacklisted numbers.
 - Protect from abuse (e.g., using fake numbers or repeated retries).
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11. User Notifications

Important to notify user on:

- Subscription success
- Charge success or failure
- Auto-renewal
- Unsubscribe confirmation

Helps maintain trust and transparency.

12. Reports & Analytics

Your system should track:

- How many users subscribed today?
- Total revenue generated?
- Most active mobile operators?
- Unsubscribe and failure rates?

Helps in business decisions and improving performance.

13. Multi-Operator Support

- You must handle multiple telecom operators.
 - Identify operator by phone prefix (e.g., 079 = Zain, 078 = Orange).
 - Each operator may have:
 - Different APIs
 - Different consent requirements
 - Different retry/charging policies
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