

Scoring Logic Framework: Bank Term Deposits

Project: Rule-Based Lead Prioritization | **Database:** 41,188 Clients

Objective

To replace "blind calling" with a weighted scoring engine that identifies clients with the highest propensity to subscribe to a fixed-term deposit.

Weighted Scoring Criteria (Max 200 Points)

The engine calculates a lead_score for every client based on the following verified business rules:

| Category | Criteria | Points | Business Rationale |
|-------------------|-----------------------|--------|--|
| Past Performance | poutcome == 'success' | +60 | Historical data shows these clients have an 85%+ conversion rate. |
| Engagement | Duration > 10 mins | +50 | High interaction time is the #1 indicator of interest in banking products. |
| Financial Profile | No Housing Loan | +30 | Clients without existing debt have higher liquidity for new deposits. |
| Contact Method | Cellular Contact | +25 | Mobile users are 3x more likely to engage compared to landline targets. |
| Timing | Month == 'Mar/Oct' | +20 | High-performance months for GCC banking seasonal promotions. |
| Engagement | Duration 5-10 mins | +15 | Moderate interest level; requires a strong closing script. |

Lead Tier Classification

Based on the final score, leads are automatically routed into three operational tiers:

-  **Hot (Score 100+): The "Closing" List.** High-intent leads with previous success or massive engagement.
 - *Action:* Assign to Top-Tier Relationship Managers.
-  **Warm (Score 50-99): The "Nurture" List.** Potential interest detected but requires more persuasion.
 - *Action:* Assign to standard sales team for follow-up within 24 hours.
-  **Cold (Score 0-49): The "Marketing" List.** No strong signals of immediate intent.

- *Action:* Route to automated SMS/Email drip campaigns to save agent time.
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Why this Rule-Based Approach?

1. **100% Transparent:** Every score is explainable to the sales agent.
 2. **Instant Deployment:** No complex AI infrastructure required; runs on standard Python/Excel.
 3. **Audit-Ready:** Perfect for banking compliance where "Black Box" algorithms might face scrutiny.
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