Create a Spring boot Application

Background

<https://github.com/fsdtrinings/finops_Sep2025/blob/main/Case%20Study%20ABCBank%20StreamAPI/PreviouscaseStudy2.docx>

Roles

Admin : Manages master data — can create Insurance Types, view all mappings, and run business reports.

Banking Employee : Operates on behalf of customers — can register insurance for accounts, view details, assist in reports (like month wise passbook etc), deposit cash , update customer passwords

Customer : Owns a bank account — can view & manage their own insurance policies.

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| Use Case | Description | Endpoint | HTTP Method |
| Create Insurance Product | Admin can add new insurance types like Car, Life, etc. | /api/insurance | POST |
| Get All Insurance Products | List all available insurance products  Get Insurance by name  Get insurance by code | /api/insurance and similar | GET |
| Delete Insurance Product | Remove an insurance product from system | /api/insurance/{insuranceId} | DELETE |
| View Insurance-Account Mapping Report | See which accounts have which insurance | /api/report/insurance-mapping | GET |
| View Insurance Report | Get Map<Insurance, List<Account> | /api/report/insurance-mapping | GET |
| Filter Report by Insurance Type | “How many accounts have Health Insurance?” | /api/report/insurance/{insuranceId} | Get |
| Combination Queries | Who has Car + Life Insurance?” | /api/report/insurance/combo?types=Car,Life | get |

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| Use Case | Description | Endpoint | HTTP Method |
| Register Insurance for an Account | Assign a new insurance policy to an existing account | /api/accounts/{accountId}/insurance/{insuranceId} | POST |
| Remove Insurance from Account | Unlink a policy from an account | /api/accounts/{accountId}/insurance/{insuranceId} | DELETE |
| View Insurance Policies for Account | See what insurances a specific account holds | /api/accounts/{accountId}/insurance | GET |
| Search Accounts by Insurance | Retrieve accounts holding a specific insurance | /api/insurance/{insuranceId}/accounts | GET |

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| Use Case | Description | Endpoint | HTTP Method |
| View My Insurance Policies | See all insurance policies linked to their account | /api/myaccounts/{accountId}/insurance | GET |
| Request to Add Insurance *(Optional)* | Customer can request new insurance | /api/myaccounts/{accountId}/insurance-requests | POST |
| Cancel Existing Insurance | Customer can remove an insurance from their account | /api/myaccounts/{accountId}/insurance/{insuranceId} | DELETE |

public abstract class Insurance {

private String insuranceId;

private String name;

}

public class CarInsurance extends Insurance {

private String vehicleNumber;

}

public class HealthInsurance extends Insurance {

private String policyNumber;

}

public class LifeInsurance extends Insurance {

private double coverageAmount;

}

Sample Application Flow

Admin creates “CarInsurance” & “HealthInsurance”  
POST /api/insurance

Employee registers “CarInsurance” for Account 1001  
POST /api/accounts/1001/insurance/CI001

Customer views their policies  
GET /api/myaccounts/1001/insurance

Admin runs a report  
GET /api/report/insurance-mapping