**Case Studies**

1. An insurance company offers various product lines, including homeowner's and auto insurance. To provide enhanced services to policyholders who already have homeowner's insurance with the company, the following optimizations are required:
2. The Policyholder logical file, maintained by both the Homeowner's Insurance application and the Auto Insurance application, needs two additional fields: Multipolicy Discount Indicator and Discount Amount.
3. The processing logic in the Auto Insurance application must be modified. During the nightly batch processing of new auto policies, if the Policyholder has homeowner's insurance with the company, the two new fields in the policyholder logical file will be updated. Additionally, the confirmation report generated from the batch process will include a message indicating that the discount has been applied.
4. The Homeowner's Insurance application also requires changes. During the nightly batch process of cancelled homeowner's policies, if the Policyholder has been receiving the multipolicy discount, the Multipolicy Discount Indicator will be set to "C" for "Cancelled".
5. The nightly batch process in the Auto Insurance application must be modified to check each record in the Policyholder logical file for cancelled homeowner's insurance. If the Multipolicy Discount Indicator is "C", it will be changed to "N", the Discount Amount will be set to zero, the new auto insurance premium will be calculated, and a letter outlining the changes will be generated and mailed to the policyholder.
6. New Functions:
   1. Add two fields (Multipolicy Discount Indicator and Discount Amount) to the Policyholder logical file.
   2. Update the Policyholder logical file with the discount information for policyholders with homeowner's insurance.
   3. Include a discount message in the confirmation report for new auto policies.
7. Changed Functions:
   1. Set the Multipolicy Discount Indicator to "C" for policyholders with cancelled homeowner's policies.
   2. Check for cancelled homeowner's insurance in the Policyholder logical file during the nightly batch process in the Auto Insurance application.
   3. Update the Multipolicy Discount Indicator, Discount Amount, and auto insurance premium for policyholders with cancelled homeowner's insurance.
   4. Generate and mail a letter outlining the changes to policyholders with cancelled homeowner's insurance.

Solution -

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| **Name Of Possible Function Types** | **Identify the function Used** | | | | | |
| **ILF** | **ELF** | **EI** | **EO** | **EQ** | **N/A** |
| **Policyholder logical file** | 1(Y) |  |  |  |  | - |
| **New Auto Policy** | 1(Y) |  | 1(Y) |  |  | - |
| **New Auto Policy Confirmation Report** | 1(Y) |  |  |  | 1(Y) | - |
| **Cancel Homeowner’s Policy** | 1(Y) |  | 1(Y) |  |  | - |
| **Policyholder Letter** | 1(Y) |  |  | 1(Y) |  | - |

1. A new file is to be passed from the Accounts Payable (AP) application to the banking application at the close of every business day. This file contains the payment date required, payment amount, PO number, Vendor name, and vendor billing street address, city, state, and Zip Code. This banking application must now be enhanced to process this incoming file and to generate the appropriate checks.

The Banking application will process the incoming file from the AP application and save into two user-maintained logical files: Checking Account and Disbursements. The Checking Account logical file previously had 2 RET’s and 19 DET’s. This change will require the addition of the PO number to the Checking Account logical file. All other attributes were previously included. The Disbursements logical file will not require any changes because of this enhancement.

The Current process to generate checks to pay invoices is to be modified. Checks now will be generated with the PO. Previously, Checks contained the following information: preprinted name and address for the company, preprinted check numbers, payment date, payment amount, payee (Same as vendor’s name), and payee street address, city, state, and Zip Code. These checks reference only the Checking Account logical file and is updated to indicate payment as part of the check generation elementary process.

A Printed report will be generated from the Checking Account logical file if checks were not produced because of an inadequate balance. The report of Insufficient Funds will contain the following attributes: insufficient funds for payment date, payee, PO number, payment amount, total number of payees, and total payment amount (total attributes are calculated when the report is produced).

Identify the complexity of the enhanced functions for the Banking application by choosing the correct options below.

Solution -

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| **Name of Possible Function Types** | **Identify the function Used** | | | |
| **Low** | **Average** | **High** | **N/A** |
| **Payement file from AP** |  |  |  | 1(Y) |
| **Checking Account logical file** |  |  |  | 1(Y) |
| **Disbursement logical file** |  |  |  | 1(Y) |
| **Generate Checks** |  | 1(Y) |  |  |
| **Report of insufficient Funds** | 1(Y) |  |  |  |