MAINFRAME PROJECT 4

PERSONAL ACCIDENT INSURANCE

VERSION	DATE	SIGNIFICANT CHANGES
1	08/03/2017	

TOOLS:-

1) Cobol

2) Jcl

3) VSAM Files

TEAM:-

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Introduction:-

Personal Accident Insurance is a cover meant for compensation in case of an accident causing injury/ death to person/ persons by violent external means. Insurers pay compensation for death, permanent total disablement, permanent partial disablement (like loss of finger, etc.) and temporary total disablement (like fractures). The purpose of personal accident insurance is to pay fixed compensation for death or disablement resulting from accidental bodily injury. Insurers pay compensation for death, permanent total disablement, permanent partial disablement (like loss of finger, etc.) and temporary total disablement (like fractures). A personal accident policy gives financial relief to insured people if they sustain any injury/ death due to accidents.

The personal accident insurance policy is issued to cover the risk of accidents by external means resulting in the death or bodily injury. The bodily injury may result in to the permanent total disability or partial disability or temporary total disability. This policy can be issued to an individual or in group. The premium rates depend upon the person engaged in activities to earn his livelihood. The sum insured will depend upon the income of the person

Scope:-

Various types of covers are granted according to the requirement of the client. Mainly classified as follows:-

1) Death/Total permanent Disablement : Total sum assured.
2) Loss of hand/foot/eye : 50% of sum insured.
3) Other case of partial disablement : specified percentage(%).

Business Objective:-

Computerizing the Personal Accident Insurance is main objective. To develop this system the Personal Accident Insurance has been divided into following sub modules:-

1) Under Writing (MASTER_FILE)
2) Renewal (RENEWAL_FILE)
3) Claims (CLAIM_REQUEST FILE and CLAIM_GRANT FILE)
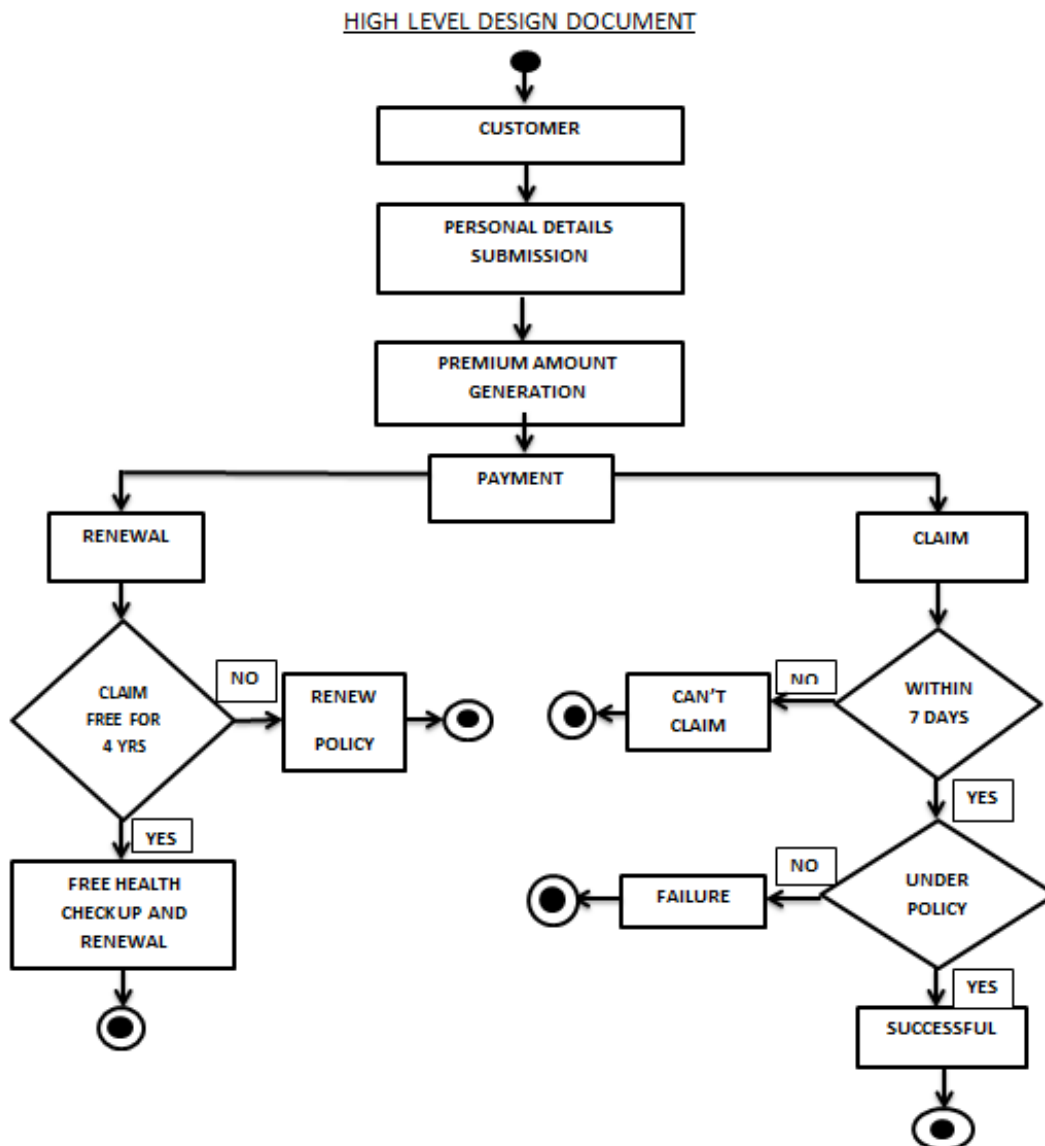4) Settlement (PAYMENT_FILE)

HIGH LEVEL DESIGN DOCUMENT:-

The purpose of this High Level Design (HLD) Document is to add the necessary detail to the current project description to represent a suitable model for coding. This document is also intended to help detect contradictions prior to coding, and can be used as a reference manual for how the modules interact at a high level. The HLD documentation presents the structure of the system, such as the database architecture, application architecture (layers), application flow (Navigation), and technology architecture. The HLD uses non-technical to mildly-technical terms which should be understandable to the administrators of the system.
The HLD will:
• present all of the design aspects and define them in detail
• describe the user interface being implemented
• describe the hardware and software interfaces
• describe the performance requirements
• include design features and the architecture of the project.

ACTIVITYDIAGRAM

HIGH LEVEL DESIGN DOCUMENT

```
                    ●
                    ↓
            ┌───────────────┐
            │   CUSTOMER    │
            └───────────────┘
                    ↓
            ┌───────────────┐
            │PERSONAL DETAILS│
            │  SUBMISSION   │
            └───────────────┘
                    ↓
            ┌───────────────┐
            │PREMIUM AMOUNT │
            │  GENERATION   │
            └───────────────┘
                    ↓
            ┌───────────────┐
            │    PAYMENT    │
            └───────────────┘
```

RENEWAL — CLAIM

CLAIM FREE FOR 4 YRS — NO — RENEW POLICY

CAN'T CLAIM — NO — WITHIN 7 DAYS

YES

FREE HEALTH CHECKUP AND RENEWAL

UNDER POLICY

NO — FAILURE

YES

SUCCESSFUL

In this activity diagram we have shown how the customer actually applies for insurance. First and foremost requirement is personal details of the customer who wants to have insurance based on which the premium amount is calculated for that particular person. Once the premium amount is generated there are different processes he/she needs to go through. The customer makes a payment of premium amount.

After a certain duration, policy renewal is required which will allow the customer to extend the insurance. Renewal also includes free health checkup and cumulative bonus in case the person doesn't claim for 4 years continuously.

There are certain insurance policy decided by the insurance company. Those insurance policy decide what amount of acclamation needs to be fulfilled. A person can only claim if the notice is provided within 7 days the injure/accident. Now the expenses are checked against the insurance policy and the claim amount is payable.

We are using a master file from which we are extracting details of the person who is claiming for the insurance. Now since the person needs to renew thus we have used a renewal file whose variables are described below. The person need to pay the premium amount calculated based on the personal details. For this we have used another file named settlements and accounts. The final process includes claiming the insurance amount. Thus we have used a file which includes acclamation details. The insurance company needs to approve the acclaimed amount thus there is a file for approving the claim.

✓ ASSUMPTIONS:-

1) There is a customer details sequential file having data such as:-
- Name
- Age
- Policy no
- Existing disabilty etc.

2) There is a renewal sequential file having data such as:-
- policy no
- no of people
- applied date etc.

3) There is a claim request sequential file having data such as:-
- policy no
- policy plan
- name and address of hospital etc.

UNDERWRITING MODULE:

It is the very first process of this project. In this step the insured person details and the policy details are accepted and premium amount is generated.

Details of the proposers are entered after which the insured's personal details and sum insured are entered. The physical status such as existing disabilities is collected at the time of registration process. According to the given information the premium amount is calculated and discounts are also offered on the premium amount based on certain criteria such as family discount, special discount etc.

FACTORS	PREMIUM AMOUNT
Accident type factor Previous accidents? if yes if no	 Base premium increased by 10% no impact
Class factor • Age between 20-30 and driving license • Age between 20-30 and no driving license • Age >30 and driving license	Base premium increased by 2.0% No impact Base premium increased by 4.0%
Occupation • Group 1: Doctors , Lawyers Etc. • Group 2: Builders , Contracters , Etc • Group 3: Mining , Explosives , Etc	Base premium decreased by 5% Base premium increased by 5% Base premium increased by 10%
Habits • Tobacco • Smoke • Alcohol • Genetic disease	Base premium increased by 2.5% Base premium increased by 5% Base premium increased by 10% Base premium increased by 15%
Type • Individual • Group	No impact Base premium decreased by 10%

Masterfile: Here in this file we are reading the data from the sequential file which we have created. The **copybook** is added in the file section of environment division. Now in the procedure division these three different sections are performed which include:

- Open the file in input mode,
- Read the file and simultaneously write the same data into the file.
- File is closed.

The master file created above is **VSAM KSDS** file in which the record key is **Policy Number.**

Renewal:

This module consists the renewal of the plan before expiration of the insurance plan. That is, you need to renew the policy plan before the expiration as to avail the facility.

- Within one month of the expiry of the policy, the policy can be renewed by the proposer.
- During renewal the number of persons covered under the policy can be increased or decreased and the existing insured's personal details and sum insured is subject to change.
- The age of the insured should be automatically incremented during the renewal of the policy.
- Claim free renewals for 4 continuous years is subject to a free health checkup. A claim free renewal will also lead to the benefits of cumulative bonus.

Process to execute the module:

First and foremost we will create a sequential file for renewal process which will have details required for the renewal. This sequential file will have following variables

- Issue date: This variable will contain the information about the date when the policy was issued.
- Expiry date: The expiry date will be 1 year from issue date and the customer needs to renew the policy within one month of the expiration.
- Policy number: This is the unique key used for retrieving the policy holders' data and to update and renew their policy.
- Claim Status: This is the flag variable which is used to determine whether or not the customer has claimed the money or not.
- Age: This variable will increment the age of the person in case of acclamation.
- Number of people: The number of people for a particular policy can be updated.
- Insured sum: Insured sum can also change accordingly
- Bonus: A claim free renewal will allow a bonus up to a certain percentage

After creation of the sequential file we need a COBOL program which will retrieve the data from the above said sequential file.

The algorithm included in the COBOL file is :

- **Step 1** : Initially the policy no. is taken as input where renewal is needed to be done. This policy no. is matched against the sequential file.
- **Step 2 :** If the policy number exists then the customer is valid for renewal.
- **Step 3 :** Expiry date is compared with the current date.

Evaluate st
                        When 1
                            Then number of people can be increased or decreased and Sum insured is subject to change
                        When 2
                            Personal details could be changed
                  End-Evaluate.
              Add 1 to age.
              End-if.

- **Step 4 :** Certain percentage of bonus is provided if claim status is 0
- **Step 5 :** If a claim hasn't been made continuously for 4 years then customer gets a free health checkup.
- **Step 6:** Any updation made by the customer will be reflected in the master file which contains all the details of the customer

CLAIMS PROCESS

Includes granting the claim to the insured person in case of any accident or injury, which is included in the policy plan

Requirements:

- Name of the insured person
- Nature of disability
- Name and address of hospital
- Policy no.
- Admit date
- Preliminary notice date
- Hospital bill

Rules:

- Only after all these fields are input in the preliminary notice , the claim can be generated
- the company should receive the intimation within 7 days from the date of hospitalization
- only those expenses that are covered under the policy are considered and the claim amount is payable
- in case of group insurance , the same procedure is followed for each employee who submits a claim request

Steps:

STEP 1:

Submission of preliminary notice to the company for requesting the claim amount

CLAIM_REQUEST FILE

In this file the insured person , who wants to claim the amount , will request for the same by giving the information mentioned in the requirements above for accessing the claim , failing in which , the claim won't be granted

STEP 2:

The details will be verified , the admit date and the intimation date would be checked

STEP 2.1 :

The application date should be within 7 days of admit date ,

If yes,

move to step 3

Else

the claim would be aborted

STEP 3:

Bills submitted would be forwarded to CLAIM_GRANT FILE

STEP 4:

Nature of disability is checked , whether it is included in the policy plan or not

Covers under this policy are:

- IF Death or total permanent disablement,
    100% OF INSURED_SUM PIC X(10)
- IF Loss of a hand/ foot/eye/use of hand / foot:

    50% OF INSURED_SUM PIC X(10)
- IF permanent disablement (partial)
    30% OF INSURED_SUM PIC X(10)
- IF temporary total disability
    Weekly benefits (Rs. 3000/-max) up to 100 weeks
    If yes,

Move to **step 5**

Else

the claim would be aborted

Step 5 :

Grant the claim according to the policy and update the CLAIM _GRANT FILE

CLAIM_GRANT FILE

This file is for the company use , it maintains the record of the claim granted such as name of the insured person to whom claim is granted ,grant date ,amount, mode of payment and other user details are entered

STEP 6:

The underwriting master file of the insured person will be updated accordingly , the fields such as amount claimed , nature of disability etc. would be updated

Policies will not pay loss / damage due to :

- War and war like perils, nuclear group of perils
- Wear and tear , depreciation , consequential loss
- Gross and willful negligence of insured
- Violation of policy conditions
- Loss/damage / liability where insured's family or insured's employees are involved as principal / accessory
- Intentional act/self-injury /influence of drug/intoxicant

SETTLEMENTS AND ACCOUNTS PROCESS:

This process takes care of premium payment. When the proposer pays premium amount, the amount is verified after which details like the mode of payment, cheque /DD No, cheque or DD Date and bank name and address are collected from the proposer

A file will be created to store this record every time a user buys a policy,

FILES USED:

We have used following files for the project:

- **Master_ File**   **Picture Clauses**
  - Name   pic x(15)
  - Nominee   pic x(15)
  - DOB   pic x(8)
  - Existing disability   pic x (10)
  - Purchase mode   pic x(10)
  - Expiry   pic x(10)
  - Policy type   pic x(1) value I or G
  - Policy Number   pic x(10) ,RECORD KEY
  - Bonus_perc   pic 9(2)v99
  - Contact   pic 9(10)
  - Address   pic x(15)
  - Number of people   pic 9(2)
  - Insu_sum   pic z9(10)
  - Premium_amount   pic z9(6)
  - Claim_st   pic 9(1)
- **Renewal_File**

  - Contacts   pic x(10)
  - Address   pic x(15)
  - Policy Number   pic x(10)
  - Number of people   pic 9(2)
- **Claim_process File**
  - Policy_No   pic x(10)
  - Name   pic x(15)
  - Hos_name   pic a(20)
  - Nature _disability   pic a(15)
  - Hos_add   pic a(20)
  - App_date   pic x(10)
  - Adm_date   pic x(10)
- **Claim_Grant File**
  - Name   pic x(15)
  - Policy_no   pic x(10)
  - Amount   pic z9(10)
  - Pay_mode   pic x(10)
- **Payment_File(Customer To Bank)**
  - Bank _name   pic x(15)
  - Bank_Add   pic x(20)
  - Date_pay   pic x(8)
  - Mode_pay   pic x(10)
  - Amount   pic z 9(10)
  - Policy number   pic x(10)