### **HEALTHCARE SELF-INSURANCE & CONSULTING GROUP**

Rajith Jayadevan

SUID - 631855248

IST654 - ASSIGNMENT 3

Mentor – Janak Khilnani

Timings – 2:30 PM to 4:00 PM Tuesdays

Group 6 – Critical Analyzers



#### **Context**

Healthcare Self-Insurance consulting group developed a SWIM LANE diagram and data dependency chart for implementing IT system for re-pricing claims processing. Re-pricing enables our group to get more hospitals, labs and pharmacies in the provider network. This will enable a provider network covering many hospitals, pharmacies and labs. More provider network will help sales team get more clients for the organization. After analyzing the potential risks, feasibility, timeline and budget, the team has decided to go further with developing a use case diagram including Use cases, Actor Glossary, User case Glossary, Use Case Table and Prototype of the interfaces.

Repricing IT System will process all the claims received from Claims processing department. The department has following stages for processing data:

- 1) **Data Verification** This stage will verify data received from claims department of the original claim. This department will check whether necessary data are received. It will check necessary provider networks.
- 2) **Discount Verification** This stage will verify network provider, verify claim source, contract verification and checks discount types.
- 3) **Compliance & Auditing** This stage enables auditors to view the repriced claims, original claims and contract details to perform auditing.
- 4) **Repricing Claims** This stage applies discounts. It checks whether any discounts are also available while applying discounts. Creates a new repriced claim. Adds loyalty points to patients account.
- 5) **Report Generation** This stage generates various reports including Repriced claims report and Customer Savings report. This system notifies claims department and relevant end user.

In this document, the use case Compliance and Auditing use case in detail manner.



#### **USE CASE DIAGRAM**

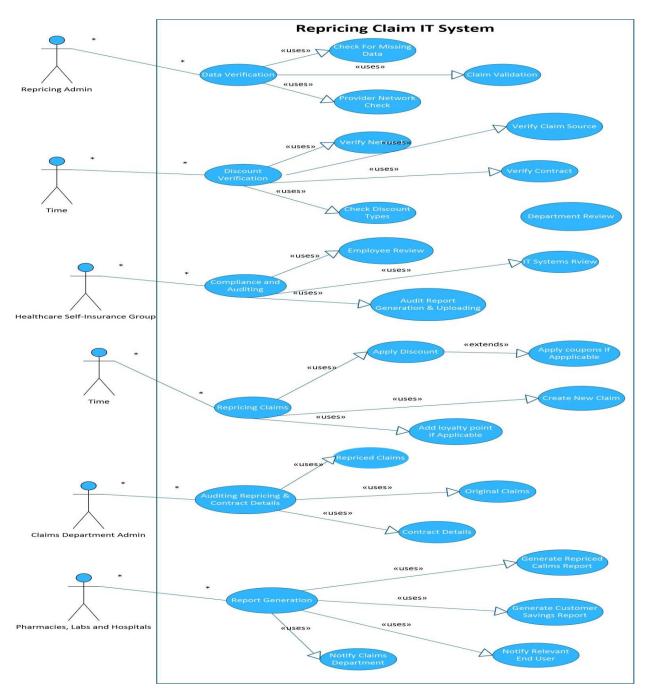


Figure 1 USE CASE Diagram - Repricing System



## **ACTOR GLOSSARY**

Actor	Description		
Repricing Admin	Repricing administrator is the first person to receive		
	claims from claims processing department. He / She car		
	request for claims data verification received from claims		
	processing department manually using IT systems.		
Time	Time is automatic trigger for data verification at the end		
	of the day.		
Compliance & Auditing Team	The compliance and auditing department team will be		
	able to view the repriced, original claims and contract		
	details to perform auditing.		
Report Generator	The report generator looks after generating monthly		
	reports on repriced claims, a report that will convey		
	repricing details and savings for each of group's clients.		
Pharmacies, Labs and Hospitals	They receive reports on repricing and determine		
	necessary action on contracts, if any.		

#### **USE CASE GLOSSARY**

Use Case Name	Use Case Description	Participating Actors
Data Verification	This use case performs data verification.	Repricing Administrator
	It checks for any missing data in the	
	claims received from claims processing	
	department. It performs claim	
	validation and provider network check.	
	Provider network check is done to check	
	if the provider network is valid.	
Discount Verification	This use case performs discount	Time trigger (Daily at the end of the
	verification which includes the	day)
	following: 1) Verifying Claim Source – 2)	
	Verify Contract – To check if the	
	necessary contract exists for that	
	provider.3) Discount Type Check – To	
	check if a contact type exists.	



Compliance and Auditing	This use case is regarding enabling auditors to view repriced claims, original claims and contract details.  1) Auditors can login to the system and search for original claims, repriced claims and contract details.  2) Auditors will be able to update audit results for each claim in the system.
Repricing Claims	This use case performs the following:  1) Apply Discount on the original claim. Apply further coupons if applicable.  2) Create repriced claim.  3) Add loyalty point if applicable.
Report Generation	This use case performs the following:  1) Generate repriced claims.  2) Generate customer money saved report.  3) Notify claims department with reports generated in step 1)  4) Notify relevant end user with reports generated in step 2)  1) Claims Department Administrator  2) Pharmacies, Labs and Hospitals  3) Report Generator



## **USE CASE TABLE**

Actor/External Agent	Event	Trigger Dependenc		Responses	
Repricing Plan Administrator	Receives Medical Claims from the Claims Department for Repricing	Claims are ready for Data Verification, which is the first step in Repricing process.	Claims received must be correct and true.	Claims are now available in the Repricing IT system for Data Verification.	
Repricing IT System	System verifies for missing data (null, encrypted & completeness)	Claims are read for Data Verification— Missing Data.	Claims received must be correct and true, i.e. no missing data.	Claims are verified for any missing data.	
Repricing IT System	System verifies claim policies for expiry dates.	validation. should be		Claims are verified if they are expired or not.	
Repricing IT System	System verifies if the network provider mentioned in the claim details matches with the HHC Network provider list.	Claims are ready for provider network check.	Claims filed should have a tie up with the network providers supported by the Healthcare Consulting.	Claims are verified if the network provider are eligible for Repricing.	
Time	Verify Claim Source	Gets triggered once the provider network is successfully found in the database.	Requires a valid source name and provider name associated with it.	Will search for the source name (hospital/lab/pharmacy) in the provider network found previously.	



Time	Verify Source Contract	Initiates when claim source and its provider network is found.	Requires a related contract with the incoming claim.	Will verify the contract validity and its expiry.
Time	Discount Check	Starts processing once a valid contract is found.	Requires a claim amount on which applicable discount would be searched for.	The system will compare the claim amount with maximum limit and accordingly decide the discount type.
Compliance & Audit Team	Log-in to the system website using auditor's login id and password.	Auditors will initiate the process of weekly auditing of system.	Repricing & contract details system should generate and provide login details to all auditors.	Auditors will be successfully logged into the system.
Compliance & Audit Team	Searches for Original Claims	Auditors will select particular dates and click on search button on their website.	System should have all original claims between particular dates.	The website will display all the details regarding original claims between particular dates.
Compliance & Audit Team	Searches for Repriced Claims	Auditors will select particular dates and click on search button on their website.	System should have all repriced claims between particular dates.	The website will display all the details regarding repriced claims between particular dates.
Compliance & Audit Team	Searches for Contract details	Auditors will select particular provider network and type (Hospital/Pharmacy/Lab)	System should have all contract details of past 6 months.	The website will display all the details regarding contract details of a particular provider network and type.



		and click on search button.		
Compliance & Audit Team	Update audit results.	Across a repriced claim, auditors will mention reason for success and audit failure of a claim and click on update.	Audited repriced claim should be present in the system.	A pdf weekly report will be generated which will be accessible for key stakeholders.
Pharmacies/ Labs, Hospitals of a provider network and/or Claims Department Admin	Generate Repriced Claims Report	When end user clicks on Generate claims report radio button and clicks on Generate report and download as pdf	The end user should have a claim raised and it should be part of the IT system	IT system generates the relevant report. Claims Admin can analyze the generated report and notify relevant teams
Pharmacies/ Labs, Hospitals of a provider network and/or Claims Department Admin	Generate Customer Money Saved Report	When end user clicks on Generate money saved report radio button and clicks on Generate report and download as pdf	The end user should have a claim raised and it should be part of the IT system	IT system generates the relevant report. Claims Admin can analyze the generated report and notify relevant teams
Claims Department Admin	Notify Claims Department	When claims department needs to be told explicitly about repriced claims	The claims admin should have access to all repriced claims information	The claims department receives the relevant information and updates the database
Claims Department Admin	Notify relevant end user	When end user needs to be told anything explicitly about repriced claims	The claims admin should have access to all repriced claims information	End user is given access to the information provided by admin and can respond accordingly



# **Use Case Narrative**

Use Case Name	Compliance & Auditing				
Primary Business Actor	Audit & compliance team				
Secondary Business Actor	External Auditors				
Other Interested	Clients, Pharmac	ies, Labs, Hospitals	s and Patients		
stakeholders					
Description	In this use case, o	compliance & audi	ting team will acce	ess our repricing &	contract details
	to perform audit	ing. They will perfo	orm auditing based	d on original claims	s, repriced claims
	and audited clain	ns.			
Pre-Condition	Generate and pro	ovide auditor login	details to all audi	tors in compliance	& auditing
	team.				
Trigger			ance & auditing te		
Typical Course Event	Step 1) Login	Step 2) Search	Step 3) Search	Step 4) Search	Step 5) Update
		Original Claims	Repriced	Contract details	audit reports
			Claims		
	Auditors will	Auditors will	Auditors will	Auditors will	Auditors will
	login to the	select two	select two	select provider	mark the
	website using	dates and click	dates and click	network and	repriced claims
	their login id	on search	on search	type of source	as passed or
	and password.	button. This	button. This	& click on	failed and give
		will give details	will give details	search button.	necessary
		on all original	on all repriced	This will give	reasons for the
		claims.	claims.	details on all	same.
				contract	
	details.				
Alternate courses (If	Step 1) Login	Step 2) Search	Step 3) Search	Step 4) Search	Step 5) Update
auditing is to be done for	Original Claims Repriced Contract details audit reports				
claims processed before	Claims				
6 months)	Auditors will	Auditors will	Auditors will	Auditors will	Auditors will
	login to system	select click on	select click on	select provider	mark the
	using main	search button.	search button.	network and	repriced claims
	auditor	This will give	This will give	type of source	as passed or
	administrator	details on all	details on all	& click on	failed and give
	login.	original claims.	original claims.	search button.	necessary
				This will give	reasons for the
				details on all	same.
	contract				
				details.	



Conclusion	In this use case, auditors will mark pass or fail of a repriced claim and this report will be		
	available for key stakeholders.		
Post-Condition	After updating audit results, key stakeholders and clients will use the same to further		
	enhance the compliance of the system with key rules and regulations.		
Business Rule	<ol> <li>All auditors will have their own personalized login and one super admin login will be provided who will have access of data older than 6 months</li> <li>Final report will be available for download for each employee of the organization</li> <li>Audited claims will not be audited again</li> <li>Repriced claims, original claims and contract details will be available for auditing to each auditor</li> </ol>		
Implementation	Auditors will have access to only data that is required for audit purpose. Auditors will		
constraints and	have to perform auditing within the organization.		
specifications			
Assumptions	Auditors are knowledgeable and up-to-date with rules and regulations to perform right		
	auditing and give necessary comments.		
Open Issues	Should all employees have access to audit reports		

## **UI Prototype**

Auditors Login to a common website where they can login using their ID and Password.



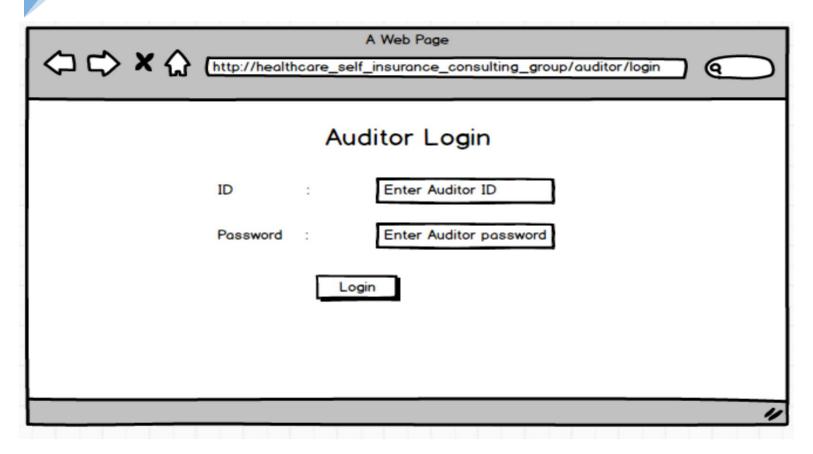


Figure 1 Auditor Login page

After login, Auditors have the following features available in the website:

- 1) **Search Original Claims** Auditors can search original claims using From Date and To Date and selecting original claims from drop-down
- 2) Search Re-priced Claims Auditors can search re-priced claims using From Date and To Date and selecting repriced claims from drop-down and also update re-pricing audit details across each claim and give necessary comments
- 3) **Search Contract Details** Auditors can search contract details using Provider Network and Source (Hospital/Lab/Pharmacies)



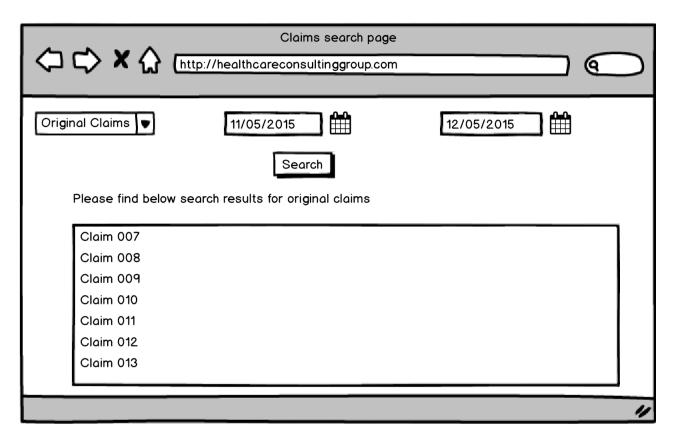


Figure 2 Claims Search Page



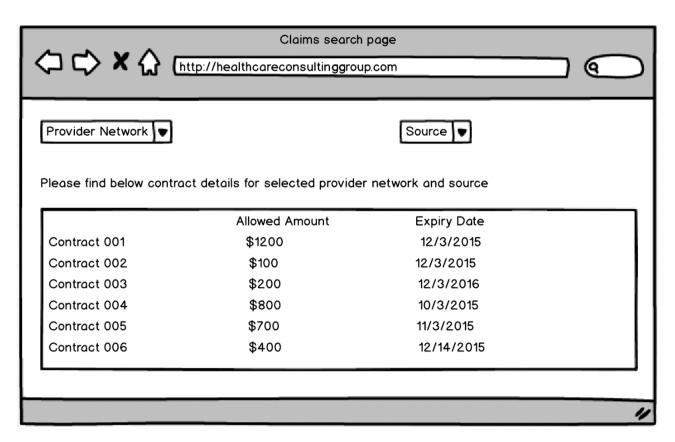


Figure 3 Contract Details



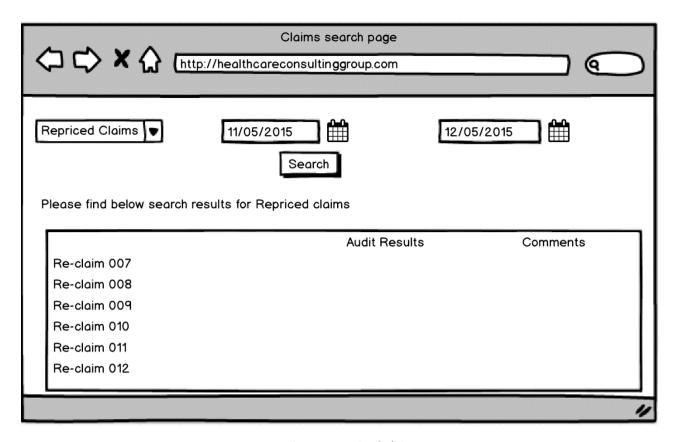


Figure 4 Repriced Claims